Sample portfolio: level 2 distinction

NCFE Level 2 Technical Award in Music Technology

QN: 601/6774/9

Introduction

The material within this portfolio relates to:

Unit 01 – Using a Digital Audio Workstation
Unit 02 – Creating Music
Unit 03 – Studio Recording
Unit 04 – Sound Creation

This portfolio is designed to demonstrate an example of the evidence that could be produced for all units of the Level 1 and Level 2 Technical Award in Music. It's designed to provide guidance on how a portfolio could look, rather than being prescriptive.

In this example there are written accounts and audio/visual evidence. Where the learner has provided visual evidence (for example screen grabs, copies of research), this has been clearly annotated to give context as to why it has been included. Each piece of evidence has been presented with the assessment criteria number shown at the top of the page.

This portfolio contains manufactured learner evidence and assessor feedback produced by NCFE.

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Internal Assessment Sample Tasks

Each unit will still be internally assessed, there will be contextualised sample internal assessments for you to use. These will be scenario based to ensure a strong vocational context.

Alternatively you can devise your own internal assessments and have them checked by the assessment checking service. See our website www.ncfe.org.uk for more information on this service.

The evidence in the sample portfolio is based on the Internal Assessment Sample Tasks available on the NCFE website.

Unit 01 – Using a Digital Audio Workstation

Task 1 - Describe a Digital Audio Workstation (DAW)

Learning outcome 1: Understand the hardware component and software functions of a DAW

SAMPLE

Learner Evidence:

Hardware Components of a DAW

L2D

Computer

This is an Apple iMac computer

* It has a 4-Core, 3.3GHz processor
* 8GB of RAM
* 1TB Solid-State drive

Peripherals/Hardware

OS (Operating System)- Manages the computer hardware and software. Provides a visual interface to allow detailed editing work.
Processor - The processor speed tells me how fast the computer can process data. Some sequencer programmes require a lot of processor speed for operation, especially when using lots of effects.
Hard disk - The computer's OS and software are stored here. It is also where projects are saved or loaded from. Audio loops and sampler instruments are also stored on the hard disk.
RAM (Random Access Memory) - Temporary storage of data that the computer needs quick access to, for example a loaded sampler instrument.
Keyboard and Mouse - Allows the user to control the software. Keyboard shortcuts can be used to quickly operate certain DAW functions such as **record** by pressing 'R'.

Audio/MIDI Interface

The audio interface is used to connect instruments and/or microphones to your DAW via its XLR/Jack connections.

It has gain controls so you can adjust the input to the desired level.

It also allows you to output sounds to headphones or speakers so you can monitor recording or playback.

It is connected to the computer by a USB cable which transmits audio and MIDI information to the computer.

It also has a MIDI IN connection which allows you to connect a MIDI instrument such as a keyboard or MIDI guitar.

It also has a MIDI OUT connection which allows you to send MIDI data to an external MIDI instrument such as a synthesiser.

MIDI Controller Keyboard

The MIDI controller keyboard allows you to record MIDI data such as the pitch, velocity and length of notes performed on the keyboard.

It has additional controls that allow you to manipulate functions within the DAW such as pitch bend or modulation.

It is connected to the computer by a USB cable which acts as the MIDI interface.

Electronic Drum Kit (MIDI Device)

This is an electric drum kit.

* It works in a similar way to the MIDI controller keyboard.
* It has a MIDI Out and USB connection which can be used to send note data
* When the parts of the drum kit are struck, the controller (brain) sends out note information and velocity values.
* These can be recorded into a sequencer and used to trigger sampled drum kits, or drum machines.

L2D

Software Functions of a DAW

Track Types

Audio

Audio tracks are for audio files only (a recorded sound wave), such as a recorded guitar, or an audio loop.

Software Instrument

Software instrument tracks are used for playing the instruments built-in to the DAW.

The tracks consist of MIDI information such as note lengths, velocity and other information like automation data.

MIDI Tracks

MIDI tracks are used for recording and playing back MIDI data. They are often used to control MIDI hardware, for example an external hardware synthesiser.

Software Instruments

Software instruments are software versions of real instruments that you can use in your DAW.

There are a range of different instruments available in a DAW.

This is a synthesiser instrument called the ES1, it features lots of controls which allow you to edit different parts of the instrument (for example 'cut-off')

The ESX 24 is a software instrument sampler, which features recordings (samples) of real musical instruments such as a drum kit.

Both require MIDI note data to work and can be performed/controlled using a MIDI controller keyboard.

Editing Tools

The DAW has a large range of editing tools. These tools can be used on audio/MIDI files (regions), or can be used on individual MDI note events. Here are a few of the important tools.

The pencil tool is used to add individual notes or create a new region.

The eraser tool allows you to delete individual notes or entire sections of a project.

The scissors tool can be used to split audio parts or MIDI notes.

The glue tool can be used to join audio parts or join individual notes together.

Quantise

The quantise tool fixes the timing of your notes so that they play on the beat.

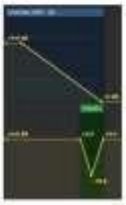
You select a quantise setting based on which beats you want your notes to snap to. The image below shows a 1/4 or crotchet resolution.

Quantised parts will play back perfectly in time which is useful if you are struggling to record a part correctly.

Quantise is also a stylistic feature of some forms of EDM, for example a 4 to the floor drum pattern.

Automation

Automation is a really useful tool for developing your mix.
Automation allows you to record changes to various parameters on each track.
Examples of automation could be panning, volume and plugin settings.
By using automation, you can record these changes so that they are triggered automatically for you when you playback.
Automation can be used creatively (for effect) and for editing purposes (fixing problems).



Plug-ins

Plug-ins are effects or dynamic processors that you can add to individual tracks or an entire mix.

Plugins can be used to improve the quality of your mix. For example a compressor could be used to tighten a quiet/loud vocal.

Plugins can also be used creatively for example through the addition of effects like delay which adds a repeating 'echo' type of sound.

Dynamics

A noise gate is a useful plugin that can help remove unwanted noises from tracks.

An example could be the hum from a guitar amplifier when the guitar isn't playing.

You set a threshold point and once the sound goes below the threshold it will be silenced.

A compressor can help make a musical part sound more consistent. It works by reducing the volume of a sound when it goes above a set threshold.

For example, if a singer is quiet one minute and then really loud the next, the compressor can help make the two parts sound similar in volume.

Effects

Reverb - Reverb is a prolongation of a sound, it can be used to recreate a performance in a more lively space for example a stadium.

Tremolo - This effect changes the volume of the sound in a rhythmic manner. It can link to the rhythm of the DAW session so that the effect triggers in time with the music.

Chorus - A chorus effect helps to make a sound more thicker by slightly manipulating the pitch of the audio in a rhythmic manner.

EQ

EQ can be used to adjust the frequency content of a sound.

You can boost or cut different frequencies by selecting the frequency you want and then changing the gain control.

You can use EQ to help give each instrument its own space in the frequency range. You can also use it make parts stand out more (Making a vocal brighter for example by increasing the high frequencies).

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Task 2 – Building a track

Learning outcome 2: Create a music project that will include MIDI and audio

Learning outcome 3: Review a completed musical project

I wanted to create an original piece of EDM music inspired by 1990s garage and a modern house style.

I started my piece by opening Logic and creating a new project. Before I got started, I needed to configure my software preferences:

In the audio preferences window, you can select your input and output devices. I would be recording some guitar through an audio interface so I set my audio interface as both the input and output device, so I can monitor my recording through headphones. I then clicked 'apply changes'.

I then created some tracks by clicking on 'Track' > 'New Tracks…' This box allows you to select the different track types as desired and add multiple tracks.

I started by creating one audio track and then manually added a software instrument track using an alternate method: selecting 'Track' > 'New Software Instrument Track'. This is useful if you just need to create one track.

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I felt the best way to start my track was to drop in a drum loop which provided a garage-EDM foundation. I used the loop browser and selected 'all drums' > 'electronic', which helped narrow down my search to just the relevant files. This saved time and I quickly found the beat I wanted to use.

There were two variations of the loop so I used one as and intro and the second as a development.

I then used the loop tool to drag the drum loop so that it continued indefinitely. This was so I could play along with something whilst I figured out the other musical parts.

I then selected my software instrument track and loaded up an electric piano, after experimenting with the different pre-sets, I found one called "Electra Piano" which sounded quite thin and would probably provide space for other instruments or voices in the mix, to further achieve this, I used the software instrument's built-in EQ control to reduce the bass further. I then played along with the drum loop until I found some chords I wanted to use. I then recorded the chords as a MIDI part by performing the part on a MIDI controller keyboard. As I was going to repeat the 8 chords, I saved time by just recording the pattern once and using the loop tool (but this time on a MIDI region) to extend the part.

After I completed my MIDI recording I noticed that I wasn't performing it perfectly in time. I then selected the region and opened up the piano roll. I highlighted all of the notes and then selected 1/8 – Quantise. When I played it back however it had changed the timing of one of the chords so that it was now even further out of time. I then tried 1/16 – Quantise and this put the part perfectly in time. You can see the end result in the screenshot below which shows the quantised part within the piano roll window.

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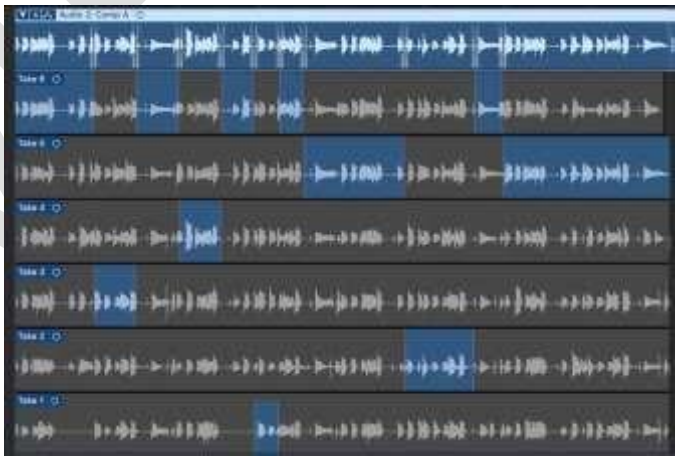
I then recorded an audio part. My idea was to add a funky-sounding bass guitar part. I started by connecting a bass guitar to my audio interface and setting the gain appropriately so that I got a healthy signal into Logic that wasn't distorting.

I tried playing around with the part but the idea I wanted was too complicated to play. I decided to use the quick-comping tool in Logic to attempt the part multiple times and then comp together a good version out of my various attempts. You can see in this screen shot how I completed multiple takes and was able to create one single part. I then looped this audio file as this 16-Bar pattern was to stay the same throughout the recording.



I then added three vocal audio loops. For variation I took the "ooh c'mon now" loop and applied a reverse function to it.

I recorded an electric solo guitar part for the breakdown section and fed this through a guitar amp simulator. This helped to create a distortion effect. I wanted it to blend in a bit to the background so I further added a delay and reverb plug-in to make it sound

SAMPLE

more 'distant'. There was a nice part of the solo at the end which I couldn't repeat or improve upon, so I cut out the 2-Bar section that sounded good using the scissors tool and then looped that section.

Next I opened the software instrument Alchemy and loaded up an arpeggio pre-set. This created a rhythmic synth type sound. Alchemy has a special pad that allows you to blend various synthesiser functions to help create some motion to the sound. I also accessed the ADSR envelope settings (Attack, Decay, Sustain, Release). Using these I was able to change the envelope of the sound making certain notes last longer by increasing the sustain and release settings. These changes were recorded in automation to create a dynamic/evolving synth sound. I also used the filter cut-off and resonance controls to make the synthesiser brighter, or duller and recorded these changes in the automation. This also helped the synthesiser sound less static and more modern.

I recorded some automation so that the controls would change between the different settings during the performance. You can see some of this automation in the following screenshot:

I then selected the whole song using the cycle tool and clicked on 'File' > 'Bounce' > 'Project or Selection'. I selected MP3 as my stereo file format as it is ideal for sharing with others as it is a small file size.

Refer to: U1 L2D Audio File

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Review

Key Review Questions:

- **How the project met the brief**
  I feel that the project met the brief requirements as I was able to demonstrate my abilities with using a DAW to a successful outcome. I created a piece of contemporary EDM music which made best use of the available technology at my disposal. I targeted all of the required skill areas and did my best to apply these skills in a creative way consistently.

- **Musical Outcome**
  I am pleased with the stylistic outcome which payed homage to original garage style sounds, but also incorporated some more modern elements. The use of a modern DAW with synthesisers like Alchemy help to put a modern spin on my piece which helps it sound less dated. Unfortunately, I did not have access to a vocalist and had to rely on loops for the vocal part. This resulted in a rather repetitive vocal line which may start to get a bit boring to the listener after a while. I would have liked to have worked with a vocalist/lyricist to add more variation to my work.
- **My strengths and weaknesses in using a DAW (MIDI, audio, arrangement and editing)**
  I have a lot of strengths across DAW use. Where I am struggling (for example playing in parts – audio and MIDI) I make use of the features in the DAW which are designed to help me record technical parts such as the quick-comp feature which I found extremely useful. MIDI editing skills are incredibly useful as I can correct pitch or timing errors by editing the notes directly in the piano roll. The biggest weakness for myself is the reliance on loops, whether these are ready-made or created by myself, they can cause the arrangement to sound repetitive. I did try to counteract this by adding a breakdown section, however the electric guitar did not always complement the EDM style.
  As mentioned before, having access to modern synthesisers like Alchemy makes the creative process much easier as you have access to some incredible sounding presets, but also a complete suite of editing tools to help make tailor my sounds to my exact needs, or in the case of this track, adding dynamic/evolving elements to the sounds so that they aren't static.

- **Ways I could improve.**

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I need to work on my arranging techniques and how I put different styles together. A lot of this is down to instrumentation choice and a reliance on loops. I need to find new ways of varying my parts, so they don't sound repetitive. I could try copying and pasting and editing the pasted files so that they sound different each time, this would add more variation and make the piece more exciting to listen to. As mentioned above, having access to a vocalist instead of editing a vocal loop, would have helped add more originality and variation, helping to make my composition stand out.

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Unit 01 - Assessor Feedback to Learner

Please state the grade the learner has achieved
<u>Grade</u>: **LO1 – Distinction** **LO2 – Distinction** **LO3 – Distinction**
Feedback from Assessor to Learner
You have described the hardware components and software functions of a DAW supporting most of your points with well-thought-out examples/explanations. You consistently use a wide range of technical terms throughout. You completed your music project tasks accurately meeting all of the requirements in the given brief. You consistently used effective application of technical skills throughout. This led you to creating a musically fluent end result. In your review you described the processes involved and identified the strengths and weaknesses. You stated advanced ways to improve your outcome/process with the development and explanation of ideas.

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UNIT 2 – Creating Music

Task 1 – Creating a style blog
Learning outcome 1: Understand the musical elements of a chosen style

The chosen style of music for my blog is EDM which stands for Electronic Dance Music. I am going to research and describe the following key elements of this style of music:

Structure

Melody

Rhythm

Harmony

Instrumentation

I am also going to look at how music technology developments have influenced my chosen style.

Structure

Early EDM styles such as house music featured repeated instrumental breaks from disco songs. "Taking just the instrumental break of a disco record, (Frankie) Knuckles would splice and loop it onto reel-to-reel tape, or boost the bottom-end rhythm section of dance records with a drum machine this 4/4 kick-drum house music is still maintained today." (The Illustrated Encyclopaedia of Music, Flame Tree Publishing, 2003). This meant that a lot of early EDM music structures were built around repeated instrumental sections.

The structure of an EDM track may not feature verses and choruses or a typical pop music structure due to the potential lack of vocals inherent in instrumental breaks. The structure of "Your Love" by Frankie Knuckles (https://www.youtube.com/watch?v=zl6uliNCkUU) is unconventional and is broken into the following sections:

ABABCADC

A (instruments enter in sequence) B (bass line and synth pad which steadily rise in pitch every 2 bars) A (repeated A section with all instruments) B (same as previous B with additional vocal parts "I need your love") C (similar to A section with a variation on the bass and synth pad progression) returns to the A section (this time with a synth solo). D section with has a small drum fill, drop and a solo bass part before the C section returns to complete the song.

The structure of A disco track many of these instrumental breaks were borrowed from however, would often feature a pop music structure for example "stayin' alive" by the Bee Gees which has Intro, Verse, Chorus, Verse, Chorus, Bridge, Verse, Chorus, Outro (bridge repeated): (https://www.youtube.com/watch?v=fNFzfwLM72c).

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Melody

"Your love" by Frankie Knuckles features an arpeggiated synthesiser playing the main melody. The notes are E>C>G and the key of the piece is E(minor). As these notes are part of the scale of E(minor) they fall inside of the key of the music and therefore the melody is considered diatonic.

In "9pm Till I Come" by the artist ATB, a manipulated guitar plays the main melody. This is typical in largely instrumental EDM music where a melody dominated by a vocal is absent. (https://www.youtube.com/watch?v=5A9OIIapSko) The main melodic hook (at 00:30s) is diatonic.

In some respects the ATB track sounds like a guitar solo, but is very repetitive, typically a guitar solo melody would offer more variation throughout like the soul jazz track "Breezin" by George Benson (https://www.youtube.com/watch?v=14pitnJlcv4) which whilst offering some repetitive bits, does offer substantial variation throughout the track.

Rhythm

The time signature of 4/4 is common in EDM, this is a simple time signature and this helps make EDM easy to dance to.

A 4/4 kick drum (4 to the floor) is an important rhythmic element of EDM. (you can hear this in "Your Love" by Frankie Knuckles featuring Jamie Principle (https://www.youtube.com/watch?v=WH5C1Fh53I0)). A 4 to the floor kick drum provides a solid foundation on which to build a track designed for people to dance to. Due to the regular simple bass drum part, people can hook on to that and dance to the rhythm. There are also 1/8th not hi-hats playing a regular rhythm. This is a straight rhythm which is not swung or syncopated, again making the track easier to follow/dance to. The bass instrument does offer a syncopated note throughout the piece and is a unique element: Duh-Duh-da-Duh-Duh (with the 'da' being the syncopated part).

However some forms of EDM do feature alternatives for 4 to the floor, for example drum n' bass which often has a syncopated beat. In the piece "syncopated city revisited" by London Elektricity (https://www.youtube.com/watch?v=0UZIGKS3g_U) the artist does not use 4 to the floor kick drum and has also used a not so common 5/4 time signature. Other forms of music for example rock, tend to use a backbeat drumming pattern which alternates between the bass drum and snare drum so they aren't struck at the same time. A rock back-beat can be heard in the following Van Halen song "Jump" (https://www.youtube.com/watch?v=SwYN7mTi6HM)

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Harmony

In "your love" there are some chords played by a synthesiser pad which comes in around 00:25s. These chords are fifths, and by themselves, not major or minor. This is because both a first and fifth note of a chord would remain the same regardless of major or minor which uses the third to denote major or minor tonality. The chord progression in the B section is I, III, IV, V, VI, VII (repeat).

These chords being predominantly fifths throughout are rather basic and other examples of music such as Jamiroquai's "Virtual Insanity"(https://www.youtube.com/watch?v=BsBBJ0IxvW4&feature=youtu.be) offer extended chords like Em7 and Cmaj9 throughout.

Instrumentation

Use of electronic instruments such as synthesisers or drum machines are key musical elements of house music. The instruments featured in "your love" are a synthesised bass, electric drum machine, synthesiser pad, synthesiser lead and a vocal. The texture of the individual parts themselves is quite thin/sparse, however when the instruments are combined, they provide a thicker texture overall during the peak-energy sections of the song (around 3:25s).

There is scope for traditional instrumentation in EDM for example "at the river" by the electronica artist Groove Armada (https://www.youtube.com/watch?v=t989-ukRYTY). Who have used a trombone for the main instrumental hook.

Music Technology Developments

An important technological development which had an impact on EDM was the introduction of the MIDI communications protocol. "The rising popularity of home computers like the AtariST introduced MIDI technology to a wide audience of producers." (https://blog.udemy.com/history-of-electronic-music/). This has enabled most modern EDM to be entirely composed using a DAW and made the production of EDM more accessible as costs of equipment started to fall. Other EDM artists such as David Guetta compose music this way. This has led to changing practices across the industry. One of the key changes is that musicians don't have to be as skilful with the keyboard when completing parts as a key benefit to working with MIDI in a DAW is that the track can be slowed down, the part performed carefully, and then sped up following recording. It also allows producers to fix mistakes (incorrect notes etc) after recording which again places less focus on getting the performance absolutely correct first time around.

Another important development for EDM was the introduction of electronic drum machines such as the Roland TR-808. "The TR-808 has become the signature beatbox used in most R&B and hip-hop as well as a lot of dance and techno music. Booming bass kicks, crispy snares and a distinctive cowbell sound made famous in the 1980's are all part of the 808 and its famous sound." (http://www.vintagesynth.com/roland/808.php).

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Although this instrument had a massive impact on the production of EDM tracks, it also found its way into popular music tracks of the time as well for example Phil Collins' "in the air tonight"

(https://www.youtube.com/watch?v=YkADj0TPrJA).

Roland also had a big impact with their TB-303 bass synthesiser released in 1981. It could be programmed in a similar way to the Roland TR-808 which again helped to influence the early rigidity of EDM music. It is likely that the TB-303 was used on "Your Love" due to the identical sounding bass lines throughout. It is possible however that Frankie Knuckles used a sampler such an Akai MPC series sampler to sample the bass sound from another track and then perform it on the Akai sampler instrument.

SAMPLE

Task 2 – Putting on the style

Learning outcome 2: Create a piece in the style identified in learning outcome 1

This is my tutorial showing you how I created my EDM (house) piece of music:

Below is a screenshot of my DAW session. You can see that I have used 7 software instrument tracks and 1 audio track. The reason there are so many software instruments compared to audio is because EDM pieces usually have a larger range of electronic instruments rather than real recorded ones.

Structure

I used the following structure for my piece: ABABCB(C outro) as this is one of the most common popular music structures.

I used the A sections to introduce the electric drums and arpeggiated synth in a similar fashion to "Your Love" by Frankie Knuckles. I used the B section to introduce the synthesised bass, the returning A section follows the same arpeggiated chord pattern but has more power to build up energy and keep interest going in the track. The C section is a bridge which offers a completely different pattern of chords and introduces some new ideas to keep the listener interested before returning with the common theme of section B. The track briefly brings back the C section for an outro.

I wanted my track to be a blend of an early house style mixed with some more modern elements so it made sense for me to work to a popular music structure especially considering the time constraints of the task (3 mins maximum) which made an extended early house track difficult.

Melody

There are quite a lot of melodic parts to my piece. Firstly the arpeggiated synthesiser which creates a melody for me when I perform simple chords. The melody is minor in key due to the fact I am performing minor chords into the arpeggiator. In the A section the arpeggiator creates a monophonic rhythmic pattern as only one note is being heled each time. During the B section a chord is held and this makes the arpeggiator play the notes in a scalic pattern moving from the lowest note of the chord all the way to the highest note before repeating.

I wanted to include a traditional instrument in a similar way to how Groove Armada added a trombone to their track "at the river". I performed this part in using the MIDI keyboard and played notes which were in the same key as the piece of music (G minor). The trombone part plays notes which are held longer than that of the Groove Armada track, the melodic part is rhythmically less complicated as well and I did this to minimise the complexity of the rhythm at the C section versus the arpeggiated part.

Rhythm

I set my tempo to 120 BPM and my time signature to 4/4. This is within the boundaries of EDM music barring extremes such as Drum n' Bass which can reach 170+BPM.

The electronic drum machine part was quite a critical rhythmic element for this piece. I created the drum tracks by creating empty MIDI regions and manually adding notes using the pencil tool. Once I built up some of these parts I either looped them or copied and pasted them to different sections of the song. I felt it was important to keep adding new rhythmic ideas, like extra notes or doubling up the hi-hat to add excitement and to make the track sound less repetitive.

The kick usually plays 4 to the floor apart from some sections where it plays semiquaver rhythms to add a bit of energy and variation. In the C section the electronic kit drops out to build in an energy drop before the returning B section. The final C (outro) section features a kick is no longer playing 4 to the floor as it is

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the end of the piece and I'm trying to get listeners to understand this (perhaps as a cue to stop dancing at this point). The hi-hats play quaver rhythms mostly throughout and I have done this to emulate the rhythmic ideas from Frankie Knuckles' track. I really liked the syncopation in "Your Love" (bass part) but felt it was a shame that it did not feature beyond one syncopated note for each repeated melodic pattern. I decided to add much more syncopation to my bass part which helped to make the piece more exciting and makes the interaction between the bass synth/bass drum much more complex and interesting.

Harmony

It was important to make sure that any additional melodic or chordal parts that I was adding to the piece related to the key of G (Minor) to ensure that they would not clash. I experimented with different ideas on the guitar to try and add variation but I found that the only chords that worked well were those derived from G (Minor). Using an arpeggiator really helped add harmonic excitement and also made it easier to come up with complex harmonic parts by simply holding down a single chord. In the C section I added a complex chord which was Cm with an added 11^{th}, with other chords playing simple 4^{th}, this again added some development over tracks like "Your Love" which were largely based on the use of repeating 5ths.

To add some excitement to the track in the final B section, I doubled up the bass melody and copied it onto a new track, moving the notes up an entire octave to add more depth and texture.

Instrumentation

I made sure that the instruments I chose were stylistically similar to EDM styles. I used an electronic drum machine instrument for the drums. I used the ES2 in Logic to create my synthesised bass sound, I selected a pre-set called Classic Synth Bass which sounded like an evolution of the simple bass sound from "Your Love", by using three different oscillators blended together, I was able to achieve a thicker sound. I was able to change the oscillators so they were an octave apart which made the synth bass part both bright, and deep sounding. I used Alchemy for the arpeggiated synthesiser parts. Alchemy has a wide range of pre-set sounds which the user can further manipulate. I made my sounds more original by using the pad controller on Alchemy and manipulating it during my performance, this was then recorded as automation. Below is a screenshot of the pad controller which you can use to blend the sounds.

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Mixing Down

Once my piece was completed, I highlighted the entire piece using the cycle tool, I made sure I left a small amount of silence at the end to ensure no lingering sounds (like reverb for example) were cut off the end. I selected 'bounce' from the main menu and accessed the mix down settings.

I decided to bounce my track down to an MP3 file format, which is a compressed format ideal for sharing work over internet or by email. If I was working for a client who wanted a full quality audio file format, I would have selected .WAV which is an uncompressed, full quality audio file.

SAMPLE

Task 3 – Music Review

Learning outcome 3: Review the musical piece

Use of Key Musical Elements:

My research in task 1 was highly useful and provided some inspiration on the different ways I was able to approach my musical piece. I was able to streamline my experimentation with instrumentation as I knew exactly what type of sounds I wanted to recreate. I used rhythms in similar ways to other EDM tracks, but also tried to add elements like the bass drum from a back beat at the end, and this added some variation successfully in my view. Arpeggiated chords helped me experiment with harmony in new ways leading to not only complex melodic parts, but also harmonic structures. In terms of song structure, I wanted to recreate a more standard pop structure rather than an extended piece, this potentially limited the flow of the piece, but it did create clear identifiable sections that would be better remembered by an audience.

Use of DAW Technology:

Unfortunately, Logic does not have a TB-303, so I experimented with some of the other synthesisers to recreate similar sounds. I was able to experiment with the range of pre-sets quickly as I knew exactly the sort of sound I was after, rather than trying to create a sound from scratch which could have wasted time.

The arpeggiator was incredibly useful for building up complex melodic and rhythmic parts, especially for myself as my keyboard skills are somewhat limited. If I had not had access to this tool, I would have had to try and play complex melodic/rhythmic parts which would again, potentially waste time.

Being able to copy and paste parts was incredibly useful for duplicating 'A' or 'B' sections, allowing me to save time during my work process.

Strengths:

My ability to play ideas through the MIDI keyboard was a key strength. It allowed me to quickly try out ideas with each synthesiser patch until I found the exact sound or idea that I was looking for.

Being able to record automation whilst manipulating a controller was a key strength and it enabled me to make my arpeggiated sound more technical and interesting throughout the piece.

My knowledge of DAW editing skills was an asset to the project and enabled me to quickly fix mistakes in my playing through techniques like quantise and velocity editing.

Weaknesses:

I did not like adding the guitar part as I felt it did not suit the style but I was required to use an audio track as part of the brief and I happen to play guitar. I tried to turn this weakness into a potential strength by manipulating the guitar part using a tremolo to make it sound more 'mechanical' however I was not truly happy with its inclusion.

SAMPLE

I initially struggled with structure and ended up creating the 'A', 'B' and 'C' sections separately, focusing on completing them before trying to work them together.

The trombone part did not seem to suit the style in my view and whilst it did not hurt the piece from a melodic or harmonic point of view, it could have suited another instrument better.

Success of the piece in meeting the brief:

I am confident that the piece has met the requirements of the brief. I am pleased with the result and I feel that I have achieved across each of the key areas of creating music. Although I struggled with the process at times, I did find new ways to work and overcome these (for example, working on each of the sections separately). I feel that the piece borrows elements from early house music and adds a some modern EDM twists like the XY pad manipulation in Alchemy.

Ways to improve my piece:

It would be beneficial for me to do further research into the use of traditional instruments in EDM to see if there are better ways to deploy these instruments in future pieces. I do feel that they help an ordinary EDM track stand out more.

I could spend more time experimenting with audio plugins to see if I can make traditional instruments work better in EDM through the manipulation of different effects patches.

It would be useful to structure my song before committing to all of the musical parts. A rough piano take could help me structure out the piece before developing the sections as my current method of approach left a lot to chance, assuming the parts would all work together when they were joined back up in the song's structure.

Refer to: U2 L2D Audio File

SAMPLE

Unit 02 - Assessor Feedback to Learner

Please state the grade the learner has achieved
Grade: **LO1 – Distinction** **LO2 – Distinction** **LO3 – Distinction**
Feedback from Assessor to Learner
You have described key musical elements of the chosen style and technical developments, comparing them with different artists and other styles. You supported your ideas with well-thought-out examples and explanations. You compared different artists from both the selected styles and other styles of music and made excellent use of references, using information from different sources to accurately communicate information into your own words. You used different sources (audio/website/literature) in your evidence. You completed the task accurately meeting all of the requirements of the given brief, showing purposeful experimentation with materials and techniques through which your piece of music was developed. Your process showed the consistent, effective application of musical elements in meeting the brief. Your piece of music was stylistic throughout and consistently well-executed. It is clear that you have experimented with musical ideas and techniques referencing clear planning and evaluation. You describe a range of strengths and weaknesses with supporting evidence, showing evidence of recognising different levels of importance with relation to the brief. You suggest advanced and technically correct ways to improve the outcome or the process with an explanation of ideas. You make detailed conclusions about how the completed piece meets the brief.

SAMPLE

Unit 3 – Studio Recording

Task 1 – Planning a session

Learning outcome1: Plan a recording session in response to a given scenario

Health and Safety (risk assessment):

Risk	How to Minimise
Exposure to noise	I will supply ear defenders to the band and enforce their use when they are exposed to loud sound. I will use ear defenders when working around loud instruments. In addition to this, we will take regular breaks to rest our ears whilst recording parts. I will use a set of headphones to check the auxiliary outputs (headphone mixes for performers) to make sure they are not set too loud. I will set my monitoring level through the control room speakers so that it is at a sensible level.
Display screens	Display screens can cause eye strain, so it is important to take regular breaks. We will take a 10 min break for every 30mins of screen use.
Trip Hazards	Cables can be a trip hazard, so I will set up before the band arrives and once I am happy with my equipment placement I will tape the microphone cables in position. I will tuck any excess cabling under microphone stands or run cables behind equipment.

Choosing the Right Equipment:

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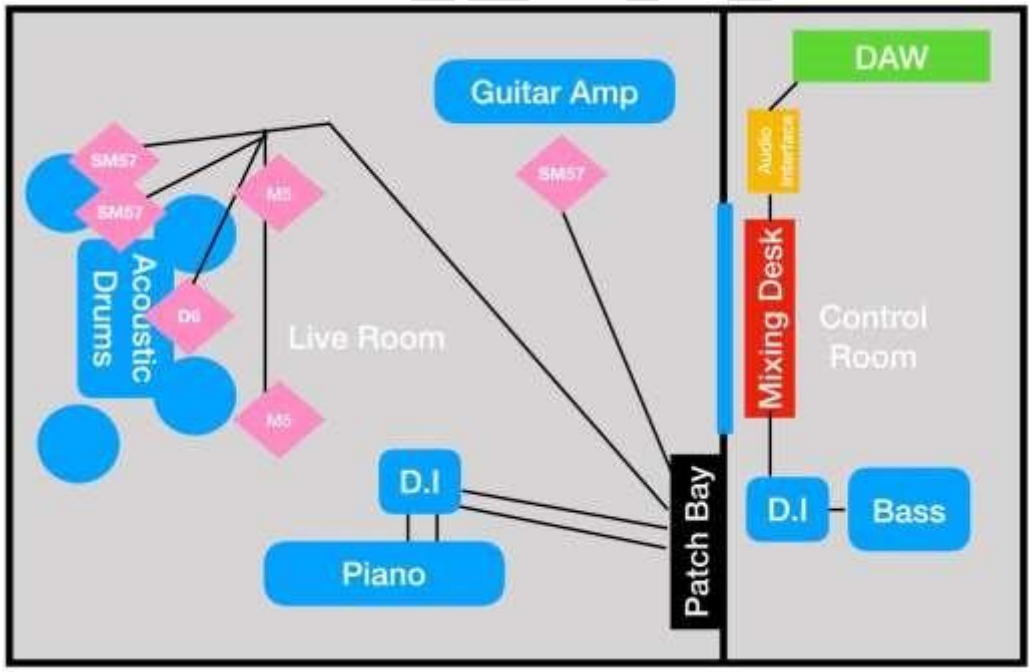
Instrument	Microphone Type/D.I	Features	Why
Drum Kit - Overheads	Røde M5 X2	Condenser microphone Cardioid polar pattern Wide frequency response	This condenser is very sensitive to high frequencies (like cymbals). It will require 48V phantom power to operate. I will use two to create a stereo image of the drum kit to make it sound wider.
Drum Kit – Snare Top	Shure SM57	Dynamic microphone Cardioid polar pattern	The polar pattern will ensure that I don't capture the spill from the rest of the drum kit.
Drum Kit – Snare Bottom	Shure SM57	Dynamic microphone Cardioid polar pattern	I am going to use a second microphone under the snare drum to capture the 'crispiness' of the snare. I will need to use the polarity (phase) button to make this work with the top mic.
Drum Kit – Kick Drum	Audix – D6	Dynamic microphone good bass frequency response	This is a good mic for a bass drum as it picks up bass frequencies well it also picks up some 'beater click'

SAMPLE

			which is desirable for some styles.
Piano (electric)	D.I(Direct Inject) - Stereo	Direct Inject as the piano has an L + R output connectors.	This will send the signals to the mixing desk through a balanced connection.
Electric guitar	Shure SM57	Dynamic microphone good frequency response	The SM57 has a good middle frequency response which will be perfect for guitar.
Bass guitar	Valve Pre-Amp	The preamp adds some colour and pleasant distortion to my sound.	The pre-amp sends out a line output, so I can connect that to the line input on the mixing desk. This will keep my signal clean.

Here is a diagram of how I plan to set up my equipment:



How I will place my microphones:

Drums:

I will place the Røde M5s in a spaced (AB) layout. This is two microphones spaced apart with roughly the snare drum in the middle. The microphones will pick up both sides of the drum kit and when panned later, will produce a wide stereo sound.

I will place the D6 inside the kick drum itself by pointing it through the sound hole. This will further isolate the microphone, so it just picks up the bass drum, it will also increase the sound of the beater hitting the skin (which I want to capture).

I will place the SM57s above and below my snare drum. I will try to get them as close as possible to the skin without them touching. The top one will capture more stick impact noise and the bottom will capture the snare quality of the drum (snare wires).



SAMPLE

Guitars:

I plan to record the guitars with the SM57 positioned directly in front of the speaker cone (middle). This will help me capture the brightest guitar sound. I want to do this

because it is easy to cut high frequencies with EQ, but not so easy to boost them if they weren't captured in the first place.

I will however change my approach for the guitar solo overdub which I would like a softer tone for. Therefore, I will move the microphone so that it is off-centre which will give me a warmer tone.

Piano:

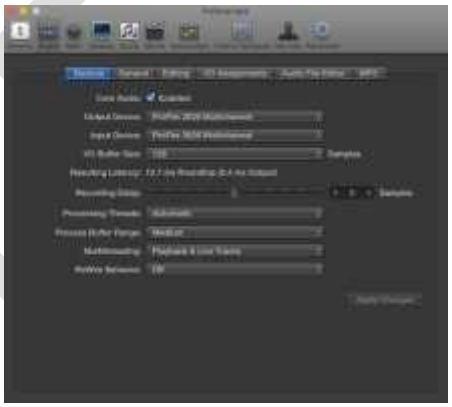
The piano has a stereo output (it is a stereo instrument) so I will use a 2-channel D.I to capture this. The D.I box also has a 'groundlift' switch which disconnects the ground wire in the cable. I can use this to safely remove any noise if I have any problems.

Bass:

I will use a TLA valve preamp for the bass. This has an instrument input and separate gain control. I will then send this to a mixing desk channel via a jack-to-jack cable.

SAMPLE

Setting up the Audio Interface:



My audio interface is an MAudio Profire. It is hardwired in to the desk and requires no changes to the settings on the front of the device. I do however, have to make sure that I select this audio interface in my Logic audio preferences as depicted in the screenshot. I need to ensure that the audio input and output settings are set to the Profire to ensure I can record **and** playback sound. The audio interface is how my mixing desk sends its signal to the DAW and how the DAW returns the signal to the mixing desk (for monitoring).

Multitrack recorder:

I will be using 8 channels on my mixing desk. Two will be for the condenser microphones and so I will have to switch on 48V Phantom Power for these.

I will need to set the gain for each instrument separately to ensure I get a healthy signal level; one that is not to faint that it suffers from noise/hiss and one that is not too loud that the signal clips or distorts in the DAW.

SAMPLE

On my DAW I will set up 10 audio tracks ready to record. It is important that I name these tracks before I record as they will label the audio files for me which will keep everything organised.

Monitoring:

I will be recording one instrument at a time, so I will only need one set of headphones for the band member being recorded. I will use the auxiliary sends on the mixing desk to send audio from the DAW channels to the band members' headphones as required. I will be sending a click track to the musicians to help them stay in time.

I will need to select pre-fade on the auxiliary sends so that if I move the faders, it won't affect their headphone mix.

I will be monitoring the tracks in the control room using nearfield studio monitors which are designed for close, accurate monitoring.

Planning the studio session:

I am aiming to record the band in two sessions as there is quite a lot to do and I can only have the studio for two hours at a time.

On both days I will turn up 45mins before the band and ensure that all of the equipment is set up and ready to go. The band can then come in and work for an hour before I pack the equipment down in the last 15 mins. This way the band won't have to worry about setting up as everything will be ready and tested.

Day 1 – Record the piano and drum kit. I want to record the piano first as it is a good guide for the rest of the band members and plays throughout the track. The drums will be a challenge but if I get all the microphones set up sort out the headphone mix in advance it should help.

SAMPLE

Day 2 – On this day I will be doing the bass guitar part and then the electric guitar parts (including overdubs: second guitar rhythm part and a guitar solo).

Task 2:

Learning outcome 2: Undertake a studio recording session

- I have recorded 10 tracks (5 tracks for the drum kit, 1 (stereo track) for the electric piano, 1 for the bass and 3 for the guitars)
- I followed my plan carefully setting up the listed microphones onto the required instruments.
- I followed my plan from task 1, choosing the correct interface in my DAW, adding 10 audio tracks (including 1 stereo track for the piano) with the correct inputs and using auxiliary sends for monitoring. I had 4 auxiliary outputs which were linked to headphones. I made sure that each musician could hear themselves as well as some of the other musicians in the room. I also used the auxiliary send on the return channels to send a click track to the performers to help keep them in time. By using the 'pre' button, I was able to set these levels independently of my control room mix so that I could set a sensible monitoring level for myself.
- I set my gain using the gain control on the mixing desk. You can see the sound levels in the screenshot below. It was important that these were set correctly as some microphones are more sensitive than others. I asked the band to run through their track whilst I set my gain levels. It was important that I captured a strong signal, but did not set the gain so high that it would start clipping.

- I ensured that health and safety procedures were followed (see screenshots of taped down cables and excess cable tidied out of the way):

SAMPLE

Risk	How to Minimise	Evidence
Exposure to noise	Use ear defenders	I gave ear defenders to the performers and asked that they be used. I stopped the session if people weren't wearing the protection.
Display screens	Take regular breaks	We took a 10 min break after 30 mins of recording on both days.
Trip Hazards	Tape cables down	I taped some cables to the floor and ran other cables flat across the floor. Excess was tucked under equipment or microphone stands. I also pointed out the taped down cables to the band members when they arrived, so they were aware of where they were.

Refer to: U3 L2D (Unmixed) Audio File

SAMPLE

Here is a screenshot of my session showing all the tracks, the recorded signals and my use of quick comp overdubs to fix errors.

Task 3 and task 4

Learning outcome 3: Demonstrate mixing of a multitrack recording

Learning outcome 4: Review their mixdown from learning outcomes 2 and 3

My comparison of my final mix against the original recording:

One of my first jobs was to edit the audio files, removing parts where nobody was playing to make sure there were no unwanted noises in the background. I used the scissors tool to trim out these sections and then deleted them.

I was careful to apply short fades to the start and end of each of the audio files to ensure that there were no 'pops' upon playback.

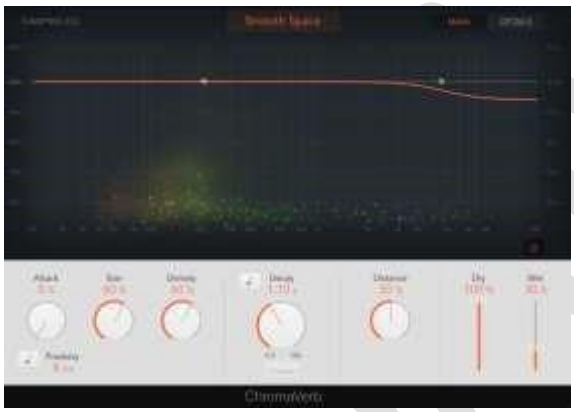
The screenshot shows the process applied to the piano and bass drum parts:

I applied the following EQ settings to my tracks:

(please note that I did not apply EQ to tracks that I didn't think needed it so not every track is in the table below)

Instrument	Piano	Kick Drum	Snare Drum	Snare Bottom	Guitar 1	Guitar 2
EQ Applied	High shelf EQ	Boost at 80Hz and at 2.5kHz with a scoop in the middle	A bit of low mid and high shelf EQ added	High shelf (cut) to remove some of the high frequencies.	Added a bit of 3-4 kHz	Same
Why	To make the brighter piano frequencies cut through the mix better.	To make the bass drum sound punchier and to exaggerate the beater click a bit.	Adds a bit more 'body' to the snare and more 'stick impact'	I didn't like the 'raspy' quality of the snare so I turned this down a bit.	This helped the guitars cut through the mix a bit more.	Same

I applied the following effects to my track:



ChromaVerb (Reverb):

This was added to the snare drum to give it more depth. I selected the stereo version of the plugin as it would help make the snare sound 'wider'.

I increased the 'wet' control until I could hear the reverb having the effect I wanted.

Delay

this to the piano part to make it sound achieved this by changing the delay the left and right channels, so they different.

SAMPLE

Stereo

I added wider. I times for were

I added chorus to the bass guitar to help try and make it sound thicker. I changed the mix level to 50% to make the effect more noticeable.

Chorus

Finally, I copied and pasted the same delay effect from the piano to the solo guitar to help make this sound wider and more interesting.

I applied the following dynamics processors to my track:
Compressor – Kick drum

I loaded a kick drum pre-set and adjusted the threshold and attack settings. When I lowered the threshold the effect of the compressor became more prominent. I also added more attack to allow the punchiness of the kick drum to get through the compressor before it applied compression.

I used the same plugin on the snare drum to the same effect however I needed to adjust the threshold and attack settings to make it individual to the snare drum. This helped make the drum kit punchier as a whole.

SAMPLE

Noise Gate (guitars)

I used a noise gate on the guitars to get rid of some of the hum before they started playing. I adjusted the threshold up until it reached the signal level of the guitars. Everything then below that threshold was cut out. When I reached the end of the track, I had to automate the volumes of the guitars so that the gates activating wouldn't be heard as the guitars faded out.

Balance and panning:

In the screenshot below, you can see how I have balanced my tracks to achieve a better mix. I also panned instruments like the overheads and guitars left and right to create a bigger stereo field. The snare bottom was reduced as discussed earlier as I didn't like the 'raspy' quality of the snare. (Please note the guitar solo track is not set to '0', it is automated to come up before the solo starts, this was to prevent noise.)

Automation:

Most of my automation use was corrective; I used it to fade out the starts and ends of files so that instruments would fade in and out smoothly.

I did use automation creatively twice; firstly, to boost the piano part in the last chorus as it was falling behind in the mix, secondly, I added some panning automation to the solo guitar to make it a bit more exciting.

Monitoring: I checked my mix using nearfield studio monitors and also headphones. This helped me get the balance right as people will listen to the song on a range of different monitor types and what might sound good on headphones, might not always sound good through speakers. I took my mix home and played it alongside some similar artists, this allowed me to judge that the bass was too loud and needed a bit of reduction.

Key strength areas:

I feel that I have created some largely clean recordings. The gain settings were set well, and you can see that I have healthy signal levels for all of my tracks with no clipping.

I've managed to enhance the mix by using EQ, effects and dynamics processing to help instruments stand out more. I was able to fine tune my dynamics processing by experimenting with the attack and threshold settings until I achieved my desired sound.

I planned the sessions well and did not run into any time-related issues. I made sure I was prepared so all the band had to do was turn up and play. This meant we could capture the best takes.

Refer to: U3 L2D (Mixed) Audio File

Areas to improve

I would have liked to have tried recording more overdubs especially for the guitars. I could have achieved a thicker sound by recording through multiple amplifiers, or using different microphones for multiple takes and then adding them together.

I was disappointed with the quality of the bottom snare microphones' sound which sounded 'raspy' and dull and I was expecting it to sound bright and crisp. One way I could improve on this is by using a condenser microphone (like the Røde M5s) which might help me capture more of the brightness underneath the snare drum.

SAMPLE

Unit 03 - Assessor Feedback to Learner

Please state the grade the learner has achieved
<u>Grade</u>: **LO1 – Distinction** **LO2 – Distinction** **LO3 – Distinction** **LO4 – Distinction**
Feedback from Assessor to Learner
You consistently and correctly apply technical terms in identifying and planning the implementation of effective solutions to the scenario. You support most points with well-thought-out explanations. Your planning was effective, and you recognised the range of activities and placed them in a suitable timescale with explanation. Your process and outcome (unmixed recording) show consistent, effective application of technical skills in meeting the brief. Your recording had no noticeable technical errors and demonstrated that a detailed and thoughtful approach to your recording session had been undertaken. Your process and outcome (mixed recording) show consistent, effective application of technical skills in meeting the brief. You produced an effective mix showing some creativity with no noticeable errors. Your process gave a detailed account of the technical processes in all areas with clear and detailed reasoning with your application of mixing skills. You make detailed conclusions about your progression from source recordings to final mixdown. Identifying a range of strengths. You state advanced ways to improve the outcome or the process with your explanation of ideas.

SAMPLE

Unit 04 – Sound Creation
Task 1

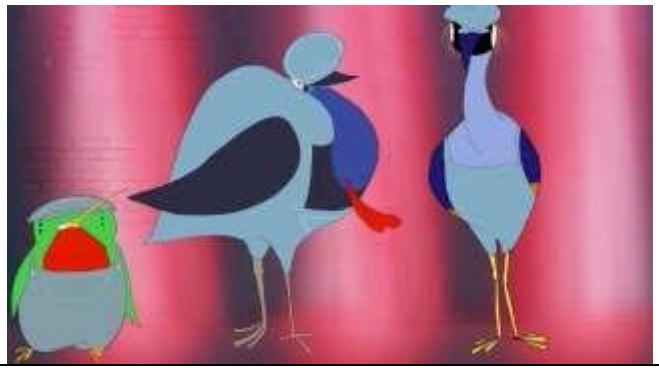
Learning outcome 1: Explain sound creation using examples.

I have created the following presentation to **describe** different types and methods of sound creation for media.

I have selected two clips as examples: https://player.bfi.org.uk/free/film/watch-outside-the-box-2018-online (Cartoon) https://www.youtube.com/watch?v=TzM9Q_aeJFE (Video Game Trailer)

Cartoon Clip Commentary	
	Underscore (25s) An underscore is a piece of music added to a piece of media. It often goes unnoticed by the viewer, but it helps to set the scene. At 25s there is an example of an underscore when the factory opens up, the initial underscore is in a minor key and this creates a bit of suspense. Later on when the birds get ready to work, there is an underscore in a major key which releases a bit of tension. The underscore in this section sounds synthesised in origin and has either had a long release setting applied, or reverb to try and add to the sense of space (a large empty factory).

SAMPLE

	Dialogue (41s) Dialogue is usually the actor's lines re-recorded in the studio for clarity. In this clip human-generated dialogue has been used to create the dialogue when the birds interacting whilst getting ready for work. Voice-overs are another form of recorded dialogue but they are used
	in a different context (see voiceover section below).

SAMPLE

	Foley (Physical Props – 1:18) Foley is the recording of objects being performed to recreate sounds in a media clip. Sometimes it is easier to perform sounds like footsteps rather than using an effects library as it could be time consuming to add individual footsteps to a scene. At 1:18 you can hear foley being used. The sound designer has used physical props to create the sounds for the objects that move along on the belt. These props would have been chosen carefully to try an recreate the sound that a viewer would expect to hear. These would then have been performed by a foley artist who would watch the clip and try to match the action on screen. At 1:18 it sounds as if the designer has used an object similar to glasses that has some sort of small hinge, this helps to establish that the object is light in weight. The next object that comes along the belt has a more rubber-sounding quality to it and may be a balloon or plastic ball rubbed together.

SAMPLE

	Ambience (Throughout) Ambience is background noises added to help set the scene or add drama. Sometimes ambience can be similar to underscore for example, using a musical drone to simulate a machine running in the background. Without the ambience in a clip, a scene might seem dry and devoid of life. During most of clip, the ambience of a factory can be heard. The sound of the factory changes in volume and reflects the different locations around the factory, however it is always present, giving the viewer a sense of a working factory.
	Sound Synthesis (1:25) Sometimes synthesisers are used to create sounds which are hard to achieve through foley. Quite often, any object that is electronic by design can be recreated using oscillators and filters. A synthesiser has been used to create the electronic sounding beeping noise for the "Boxes Packed" display. It is quite possible that the sound designer has performed the synthesiser parts or recorded them as MIDI. In some respects, this is a bit similar to foley in application as the keyboard is possibly being performed.

SAMPLE

Video Game Trailer Commentary	
	Voice-over (2s) Voice-overs are recorded dialogue which is usually used to provide information for the viewer. It is different from recorded dialogue of characters speaking to each other. Voice-overs are usually non-diegetic which means they exist outside of the scene in the form of a narrator. At the start of the Pirates of the Caribbean game trailer, there is a voice-over announcing the age rating of the game. In both clips, the dialogue parts would have likely been recorded in a vocal booth, this would be important and would make certain that the recordings were clean and dry. This would allow an engineer to later apply reverb if they needed.
	Underscore **(not present)** Unlike the cartoon Outside the Box, this clip does not make use of an underscore. Instead, a full powerful orchestrated score is used to add dramatic music and this is far more effective for this particular scene. For an advert, especially a short one, you want to grab audience attention quickly. The dramatic music also helps to establish the sense of adventure that the game is trying to convey.

SAMPLE

	Digital Sample Manipulation (6s) Digital sample manipulation is the modification or editing of a sound for creative or contextual reasons. Sometimes a recorded sound is not enough on its own and has to be edited further. Consider a foley recording of footsteps, if the footsteps needed to sound like they were in a cave, you would need to apply reverb processing to the sound to make it more realistic. Another example of editing at a digital level is the use of pitch manipulation (tools such as flexpitch / elastic audio). These can be used in a number of ways; the logo for Tt Games features some quite heavy sounding footsteps which may have been pitched down to try and represent more weight. Pitch processing can also help change the sound of a voice actor if you are only working with one person, but want to create a range of different sounds. A recorded cymbal sound has been reversed through editing. This is a creative application of Digital Sample Manipulation to help make the Disney logo more engaging.

SAMPLE

	Environment Noises (20s) Environment noises are sounds added to a clip to reflect the environment where the scene takes place. Without environment sounds the clip might feel empty and unrealistic. At 20s you can hear the wind and the waves which have been added to set the scene of a pirate ship sailing through the windy sea. Environment noises are usually quite hard to capture by microphone, so it is likely that these have been sourced from a SFX library. This is contrasting to the cartoon (Outside the Box) example where an ambience is established with a blend of mechanical noises, background dialogue and ambient synthesis. In the video game trailer, the clip is short so the sound designer may not have had enough time to utilise ambience fully and has focused on establishing the main focus of the clip (a ship at sea) as quickly as possible using an environment sound.
	Special/Spot Effects (38s) Special or spot effects are prerecorded sounds sourced from sound effects libraries. They are usually used when it is impractical to use other methods, or because it is quicker/convenient.

SAMPLE

	The sound of the monkey has been taken from an effects library and has been added to the clip. Thy have used an effects library as it would be too challenging to record a real monkey.
	Foley (42s) Another example of foley use is the breaking up of the ship as it crashes into the jetty. Foley is typically used in movie clips like the first cartoon clip rather than computer games, this is because movies offer a linear progression. However, this clip appears to be a cut-scene so foley as a method of sound design is completely appropriate as the sound of the ship breaks apart. It sounds as if the designer has used a variety of heavy objects striking each other to help represent the weight of the ship as it breaks apart. Other foley use is difficult to establish as the music and sound of the sea seem to be main focus and would mask any quieter sounds.

SAMPLE

SAMPLE

Task 2

Learning outcome 2: Plan and undertake the sound creation for a given brief.

Plan:

I am using the Outside the Box cartoon as my movie clip.

Here is a plan of which types and methods of sound creation I will use for my project:

Foley	**There are some aspects to the clip where I expect the use of foley to be the most successful method of sound creation. I will be certainly looking to do items like footsteps through the use of foley. There are other elements of the clip, like the polystyrene being added to the box which could be done through foley. The objects on the belt could also be done as foley. Whilst I could use footsteps from an effects library, it could be time consuming to try and line them up for each step.**
Ambience/Sound Synthesis	**I will use a synthesiser to create an ambience and some underscore. I will use a subtractive synthesiser playing some sort of drone to add some tension to the scene. I will also look to add some ambience of the rest of the factory by adding some mechanical noises in the background.**
Dialogue	**I will add some spoken dialogue for the characters. There are characters at the start (entering the factory), I will record some dialogue of them complaining about work. I will also add dialogue for the main character including things like 'gasps' when dramatic moments happen.**

SAMPLE

Underscore	**I will compose a ukulele part for the sequences where the main character dreams about leaving for the tropical paradise. The may be quite strong to be considered an underscore, however I will try and limit the chord progressions and keep the overall part quite simple so that the viewer focuses more on the character and what he is thinking about and not the music. I have decided to write this myself rather than using an audio music loop as I would like the underscore element to be original.** **I will also use my subtractive synthesiser for an underscore to add drama at certain points, for example, when the claw machine swipes at the bird.**
Physical Props (more foley)	**I have got hold of a rubber glove, plastic ball, different fabrics and surfaces to walk on. I think these will be quite useful when recreating some of the sounds that require foley in the clip, such as the placing of items into boxes.**
Environment Sounds	**The factory environment will be created through ambience as described above. I will also add the sound of waves for when the main character daydreams about going on holiday.**
Digital Sample Manipulation	**I will need to trim multiple files and position them carefully to ensure they play in time with the movie clip. Some sounds will require additional processing, for example, if I record my own voice for multiple characters, I will need to pitch shift them so that they sound different. If I don't do this, it will**

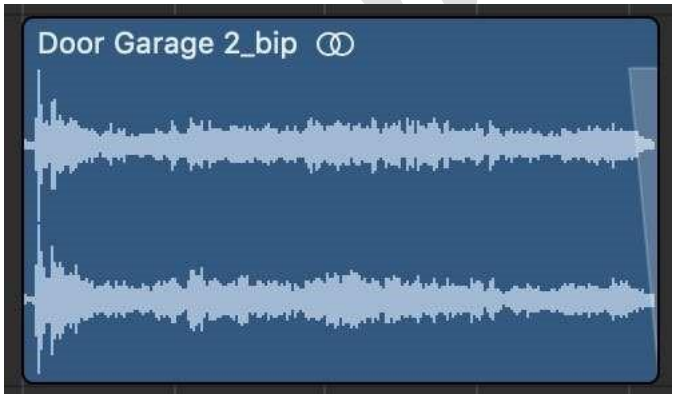
SAMPLE

	sound strange as all the characters sound the same.
Effects Library	**The claw machine, conveyor belt and doors could be quite difficult to do via foley and it could result in me wasting time and not achieving a satisfactory result. I will therefore use an effects library to obtain these sounds which as it is more efficient.**

Evidence of Process

I started by adding some MIDI parts through the USB MIDI Keyboard. I experimented at first with different subtractive synthesiser parts, selecting pre-sets until I found something suitable. I wanted something that sounded mechanical, but also fulfilled an ambience/underscore role. In the end I used a pre-set called Midnight and adjusted the attack and release settings to create a slower, more evolving sort of sound.

The track called "Clean Tines Are Mine" is an electric piano software instrument which I used to create the sound of the "Boxes Packed" counter. This sounded electronic and had a positive sound to it. I tried playing in the fast bit where the numbers increase rapidly, but I couldn't play it fast enough. I therefore drew this part in using MIDI editing on the piano roll.



I then started looking for sounds in the effects library that I could use. I found that the door sounds were good, but they didn't match the timing of the doors in the clip. I therefore trimmed them shorter, I also put in a quick fade at the end of the file to ensure I would have no clicks or pops in the audio.

I added some dialogue for the factory workers. I wanted to make sure that they all sounded different so I layered all the sounds on different tracks and then used a pitch shifter to raise or lower the pitch of each voice. I then panned them and sent them to an audio bus. I then put a reverb on the bus so that they sounded distant.

I used foley and performed the footsteps of the different characters. The main character was smaller, so after trying to make my feet sound smaller (which was impossible), I decided to use a pitch shifter to manipulate the pitch, making it higher and lighter sounding.

I then started adding in foley parts for the different objects that were being encountered on the conveyor belt. I did look at some sound effects first but they didn't seem to line up correctly or sounded out of place.

I performed the sounds by manipulating different objects, for example the sound of the sunglasses was created by actually opening and closing sunglasses. The sound of the flamingo going in the box was done by rubbing a rubber glove over a plastic football. The bikini was difficult to do as I was trying to rub two layers of fabric on top of each other, I couldn't get the timing correct, so I looped the part and created multiple takes until I finally got the timing correct.

The polystyrene beads falling in the box was also done through foley. I simulated this sound by tapping my fingers on a table in a rhythmic manner.

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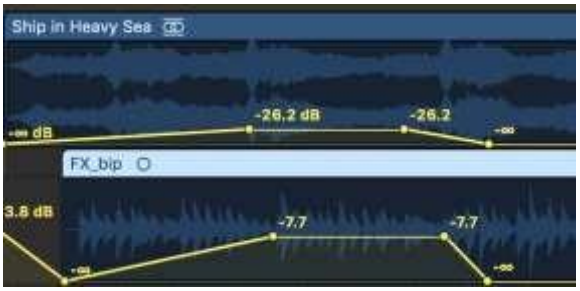
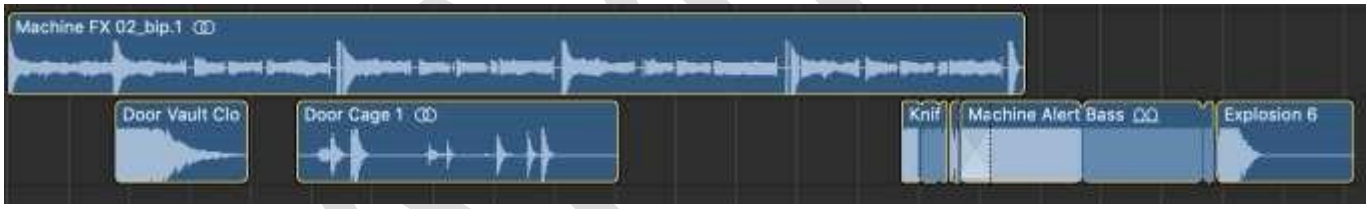
When the main character thinks about the sea, I faded in the sound of waves and the original underscore I created on the ukulele using automation.



Later on, the same music plays out of a radio. To make this sound more realistic, I put an EQ which limited the bass and treble, boosting the mid frequencies so that is sounded more like a radio. I also added a small amount of overdrive to make it distort gently.

Below is a screenshot of the sequence where the claw machine is destroyed. This was quite challenging to do as there were a number of different motions happening all at once. I couldn't replicate any of the sounds using foley, so I resorted to using an effects library. I layered multiple sounds, including using some cross-fades to ensure smooth playback. I also used volume automation to give a sense of distance.



The screenshot below shows the conveyor belt track part way through the video clip. I used two conveyor belt tracks, one was consistent and represented the factory background. The one in the screenshot was used to reflect what was happening in the scene, for example when the character is in the box, or out of it.

Refer to: U4 L2D Audio File

Task 3

Learning outcome 3: Review their completed sound creation project.

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My Review

Strengths:

One of the main strengths of my project was my proficiency with audio/MIDI editing tools in a DAW. Although there were often multiple ways of approaching this task, I knew that I would be able to use the tools to edit and improve my outcome regardless of which method of sound creation I chose. One example of this was my ability to manage multiple takes in Logic and use that to my advantage when approaching difficult to master foley elements.

Another strength was my ability to plan in advance what I was going to do. This made my time management more effective and I did not waste time trying out ideas that would clearly not work.

I utilised my strengths as a musician, opting to compose my own underscore elements. This gives the project a stronger degree of originality and helps it to stand out. Yes, I could have used loops and gained a satisfactory result, but I felt it was important to utilise my creative skill through composing even if it took a little longer.

Weaknesses:

I wasn't happy with my attempts at dialogue. I feel that my voice acting lacked character depth and although all the vocalisations were edited (in pitch, to make the characters seem different), I could still tell that they were all me. It might have been more effective to pick someone else to do the voice acting, or a range of people to give more variation.

I did my best with the machine noises, but unfortunately because I used an effects library, I was unable to match the sounds precisely how I wanted them to sound/fit. I will treat that as a learning experience, and should I do a similar project in the future, I may choose to experiment with foley to achieve a more original and more effective sound.

Conclusion:

I feel that my piece meets the requirements of the brief for the most part. Many of the scenes were effective and by bringing together all of the different methods of sound

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creation, I was able to come up with a complex soundtrack to my movie clip. I managed my time effectively throughout thanks to my detailed planning at the start. I used advanced DAW skills to work effectively with all forms of sound creation. In future work, I will attempt to address my weaknesses, devoting more time to creativity with foley and trying to work with other people, especially when dialogue is concerned so that I can make my dialogue sound more varied and professional.

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Unit 04 - Assessor Feedback to Learner

Please state the grade the learner has achieved
Grade: Level 2 Distinction **LO1 – Distinction** **LO2 – Distinction** **LO3 – Distinction**
Feedback from Assessor to Learner
You described the types and methods of sound creation and explained how they were linked (where appropriate) making good reference to examples of two different types of media. You supported your points well by referencing them to the two examples and made accurate conclusions after weighing up all the information. You explained how each sound was created using technical terms. You created a plan, video clip and evidence of your process. The project showed the use of all required types and methods of sound creation. Your process and outcome showed the consistent, effective application of technical skills and purposeful experimentation with materials and methods and you were successful in meeting the brief. You considered alternatives and undertook a range of activities to produce a considered end result. You described a range of strengths and weaknesses with supporting evidence, showing evidence of recognising different levels of importance of methods of sound creation. You undertook advanced ways to improve the outcome and process and explained these ideas well. You explained specific and technically correct ways in which the outcome or the process could be in proved. You also made a detailed conclusion about how your completed project met the requirements of the brief.

Marking Guide

/\ word missing	sp spelling	p punctuation	gr grammar
ex poor expression	T wrong tense	? meaning unclear	
Cp capital letter	// new paragraph	! not sure what this is—incoherent	

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