DIGITAL AUDIO WORKSTATIONS AND EMERGING TECHNOLOGIES (C.1996 – PRESENT DAY)

Recording Eras

What is a DAW?

- A device or software capable of recording, editing and mixing audio and MIDI files

- Integrated DAWs store a control surface, mixing console, audio converter and data storage in one device

- Software DAWs are computer-based and require for basic components:
  - A computer
  - A sound card or other audio interface
  - Audio editing software
  - At least one user input device for adding or modifying data

Integrated – Yamaha 01V96
Software – Ableton Live

The DAW started out as early software for controlling and capturing audio and MIDI data

User input device can be as simple as a mouse or as intricate as a MIDI keyboard

DAW Development

- Early DAWs were limited by the hard disk technology at the time

- By the late 90s DAWs had integrated both audio and MIDI into their software

- DAWs began to replace hardware like tape machines, making them essentially obsolete
- They also began to reduce the need for rack-mounted hardware effects and dynamic processing

Theoretically they were able to edit more tracks and larger files but hard disks stored relatively small amounts of data

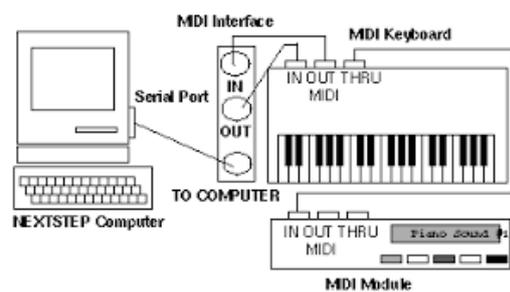   Larger drives = very expensive

As time progressed, software became more capable of running increasingly large numbers of audio and MIDI tracks simultaneously (due to Moore's law – the no. of transistors in an integrated circuit will double approx. every two years)

Software emulations of things like compressors, EQ and reverb started to be included within the DAWs

All of these developments made recording and production software smaller and more affordable, allowing for more artists to access it
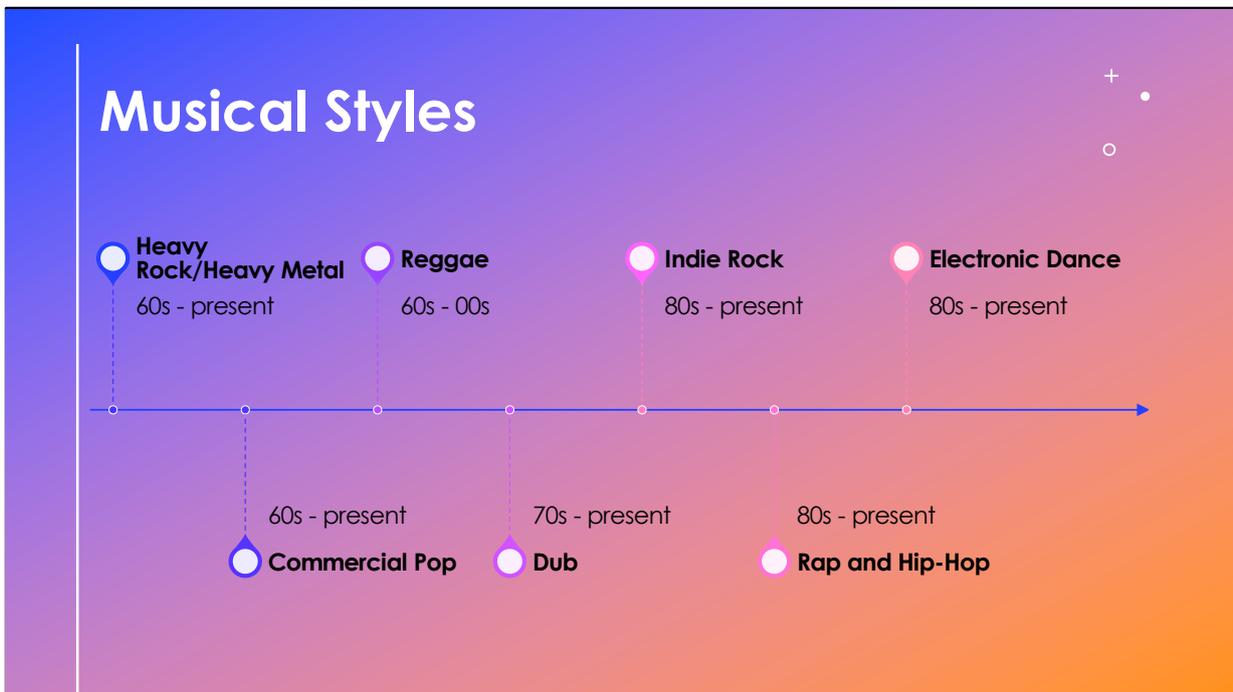
MIDI

- Stands for Musical Instrument Digital Interface
- The protocol was standardised in 1983
- Allows for various different electronic musical instruments to communicate with one another
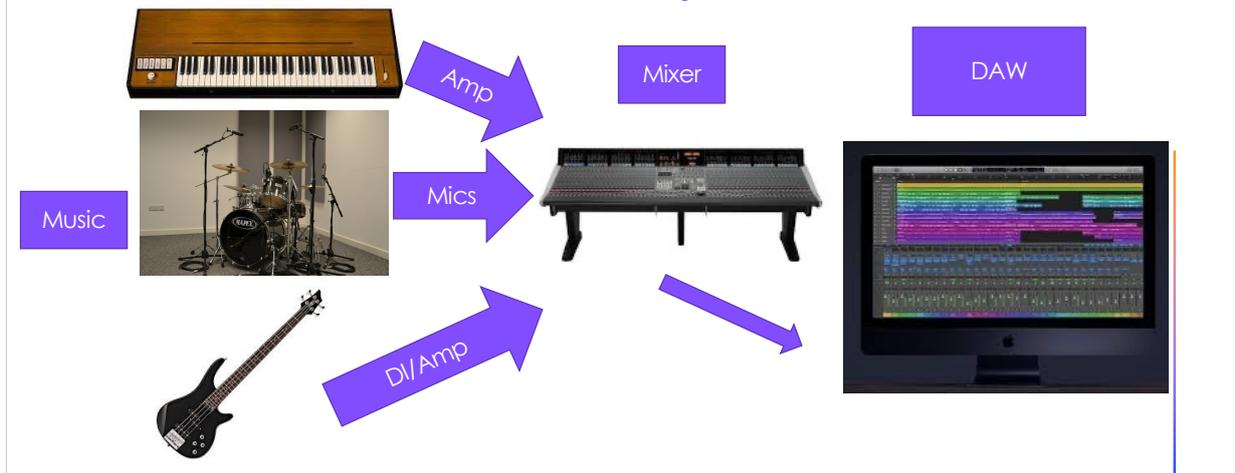
Protocol = Set or rules/system

Before this, synthesisers were very expensive and different units weren't compatible with one another due to manufacturers working independently

Electronic musical instruments include: drum machines, synths, samplers, effects units

Musical Styles

Heavy Rock/Heavy Metal
60s - present

Reggae
60s - 00s

Indie Rock
80s - present

Electronic Dance
80s - present

60s - present
Commercial Pop

70s - present
Dub

80s - present
Rap and Hip-Hop

Commercial Pop (60s-)
Heavy Rock/Heavy Metal (60s-)
Reggae (60s-)
Soul (60s-70s)
Psychedelic Rock (60s-70s)
Progressive Rock (60s-70s)
Funk (60s-80s)
Disco (70s-80s)
Glam Rock (70s)
Punk (70s)
New Wave (70s-80s)
Indie Rock (80s-)
Rap and Hip-Hop (80s-)

2000s Signal Flow

Mixer = SSL Duality

Effects would be added straight in the DAW

Consumer Formats

1982
Compact Disk (CD)

2001
Digital Streaming

AIFF Format
1988