

NATIONAL
ENDOWMENT for the ARTS

And the National Alliance for Musical Theatre



MUSICAL THEATER
SONGWRITING
CHALLENGE

In collaboration with Concord Theatricals, Disney Theatrical Productions,
and NMPA S.O.N.G.S. Foundation

MODULE 4: DIGITAL AUDIO WORKSTATIONS (DAWS)

What is a Digital Audio Workstation (DAW), and how can you use one to create demos? Dive into the world of DAWs, learn about the programs available to you and how to get started building professional demos.

WHAT IS A DAW?

DAW stands for **Digital Audio Workstation**, which is a software that lets you **record, edit and produce music**. Using a DAW, you can record live instruments and vocals, compose using virtual instruments, layer sounds, mix and master tracks and more. It's like having a music studio on your computer!

WHAT IS A MIDI?

MIDI stands for **Musical Instrument Digital Interface**, which are tools that work with a DAW to create music by allowing electronic devices to communicate with each other. MIDI tools include MIDI cables, MIDI keyboards, MIDI controllers and more!



YOU MAY ALREADY BE FAMILIAR WITH DAWS...

GarageBand is a free DAW software that comes with all Apple products. If you've ever played around in GarageBand, you've used a DAW before!

GETTING STARTED

DAW SOFTWARE

There are lots of DAWs you can download to record, edit and produce music

GarageBand: free, easy-to-use software on Apple products. Great for beginners, and also user friendly on mobile/tablet.

Audacity: free software for audio-editing . Not a full DAW, but great for recording podcasts. [Download](#) for Windows or Mac.

Cakewalk: free software for Windows with pro-level mixing and recording features.

Logic Pro: Mac software that is the industry standard for composers and producers. More advanced than GarageBand. One-time purchase of \$199.99, or get Logic Pro as a part of the [Pro Apps Bundle for Education](#) (\$199.99 for five apps). You can try Logic for [free for 90 days](#).

Pro Tools: subscription-based software that's best for studio recording.

Cubase: software that's great for film scoring and orchestration. [Compare versions](#) with different features and prices, and try Cubase 14 for [free for 60 days](#).

FL Studio: software that's great for beat-making, hip-hop and electronic music. User-friendly for beginners, and you can try it for [free for 21 days](#).

APPS

Songwriting tools at your fingertips

Logic Remote: companion app for GarageBand or Logic to turn your phone or tablet into a mixer, controller or digital instrument (free, Apple)

Voice Memos: record voice notes (free, Apple)

Voice Recorder: record voice notes (free, Android)

Pro Metronome: metronome app (free version, Apple)

Pro Metronome: metronome app (free version, Android)

Tiny Piano: keyboard app (free, Apple)

Mini Piano Lite: keyboard app (free, Android)

NAVIGATING YOUR DAW

WE'LL USE GARAGEBAND FOR THIS EXAMPLE, BUT MOST WILL HAVE A SIMILAR EXPERIENCE.

Open GarageBand on your computer



Create New Track



MIDI

Software Instrument

Plug in a USB MIDI keyboard to play and record using a wide variety of instruments like piano, organ, and synths.



Drummer

Rock

Add a drummer that automatically plays along with your song.



Mic or Line

Audio

Record using a microphone or line input - or drag and drop audio files.



Guitar or Bass

Audio

Connect a guitar or bass to your Mac to play and record through virtual amps and pedal effects.

> Details



Cancel

Create

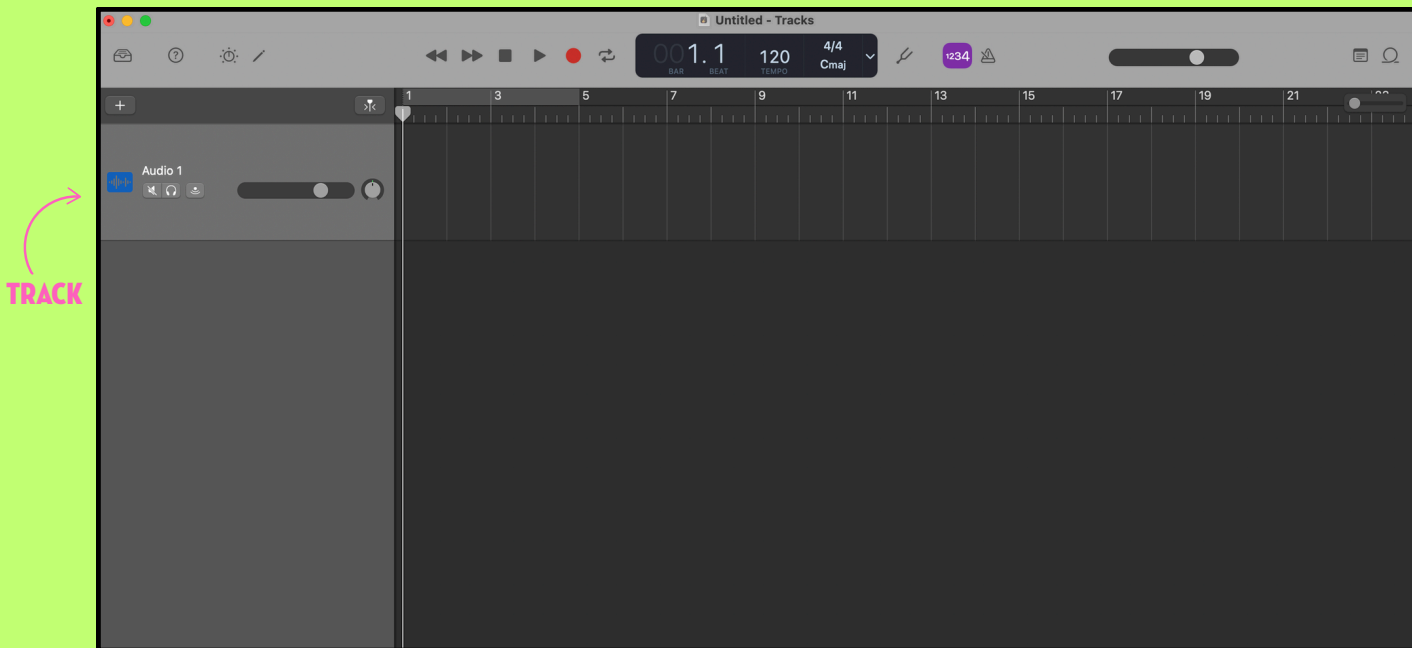
GarageBand will ask you to select a new track. Think about the project you are starting: what is the main instrument for that song? Choose that type of track to begin with (you can choose any of them if you want to play around).

Select the type of track you want to start with and click "Create."

NAVIGATING YOUR DAW

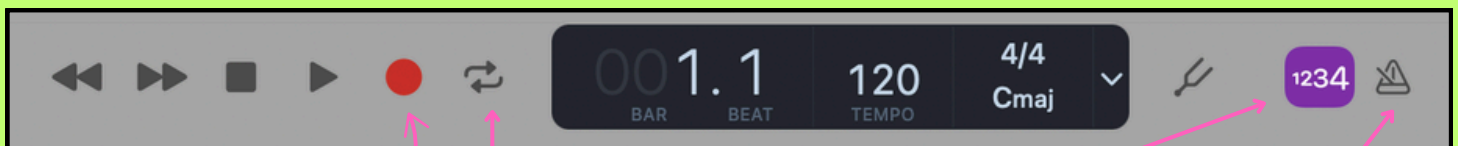
GARAGEBAND

Once you select the type of track, your DAW will look like this:



TRACK

The bar along the top has the following functions:



RECORD BUTTON

When you want to record something either through audio or MIDI.

CYCLE BUTTON

Enables Loop Mode, which allows you to repeatedly play a specific part of your track.

COUNT-IN

Gives you a 4-count count-in prior to recording.

METRONOME

Allows you to set your tempo and time signature. You are able to mute and unmute it for recording and listening playback purposes.

NAVIGATING YOUR DAW

GARAGEBAND

On the left side of the top bar is the button to open the Sound Library:



SOUND LIBRARY

Select different virtual instruments (e.g. pianos, guitars, synths), use presets and download more sounds.

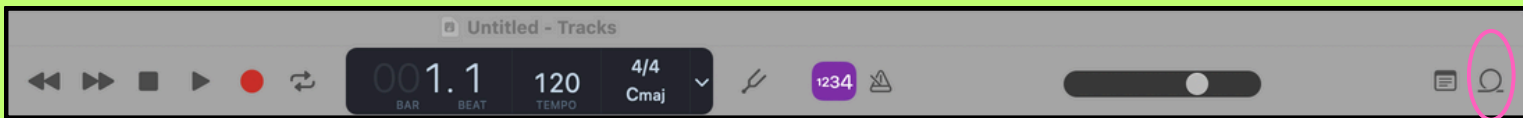


Once opened, a menu on the left-side will appear with different instrument options and sounds for you to use on your track.

NAVIGATING YOUR DAW

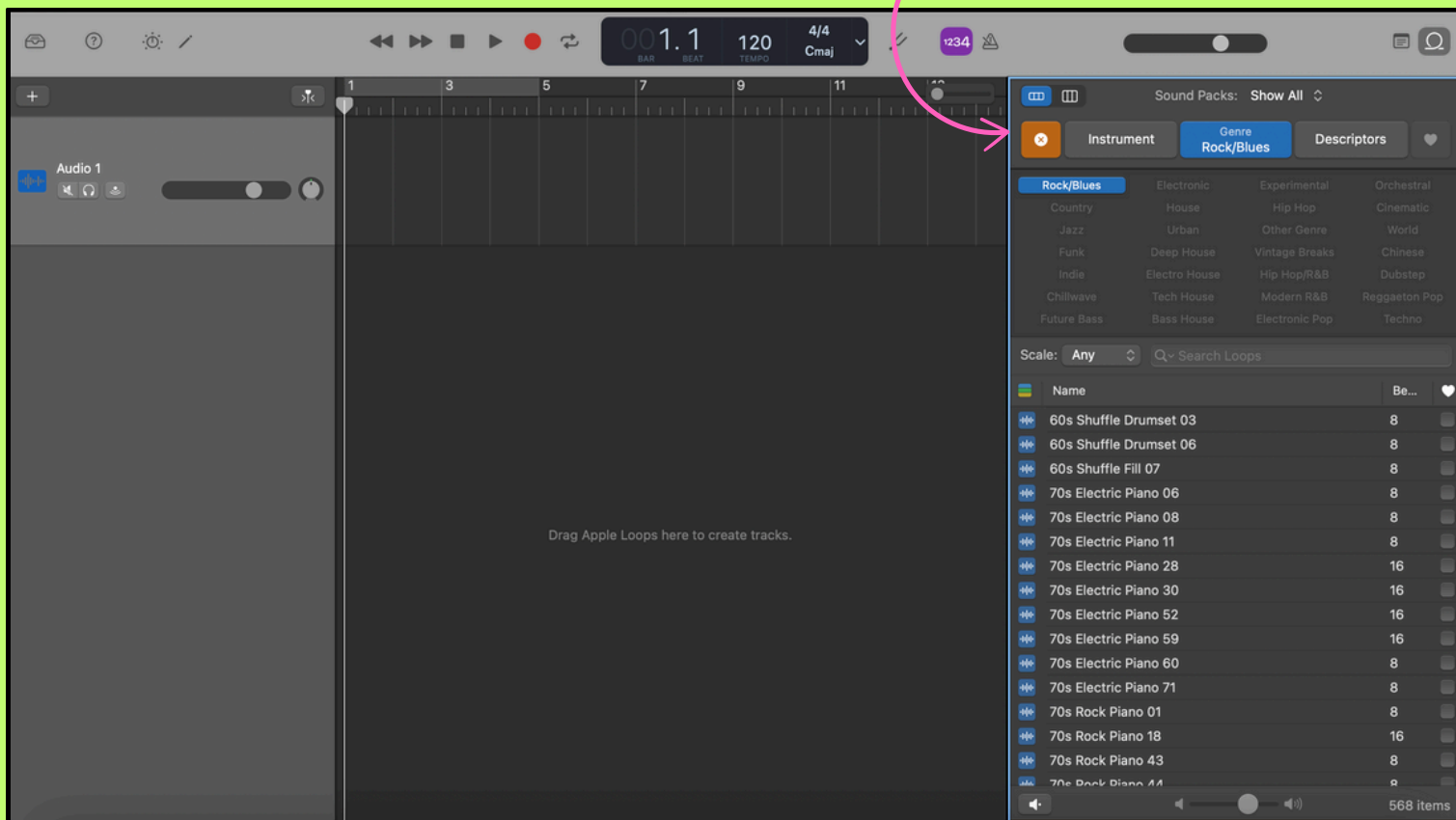
GARAGEBAND

On the right side of the top bar is the button to open the Loop Browser:



LOOP BROWSER

Find loops by Instrument (drums, piano, guitar, strings, etc.), Genre (Rock/Blues, Jazz, Hip Hop, etc.) or Descriptors (acoustic, electric, relaxed, distorted, etc.)

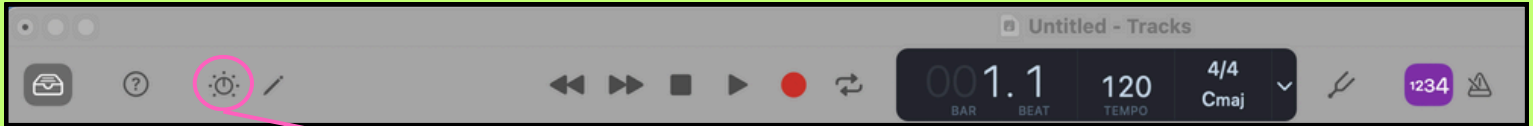


You are able to use as many loops as you like for your composition, or you can use one to start with to spark inspiration or an idea!
 Drag loops to the center to create tracks.

NAVIGATING YOUR DAW

GARAGEBAND

On the left side of the top bar is a button for the Control Panel:



CONTROL PANEL

This is where you can add effects to your track, find control plugins and mix, balance and master your track.



The control panel has different buttons for effects, output EQ and more. It is something to experiment with once you feel comfortable using the other features of your DAW.

TUTORIALS

Check out [@MusicTechHelpGuy](#) on YouTube.
Here is a playlist on [The Ultimate Guide to Logic Pro](#).

EQUIPMENT & ACCESSORIES

Using just your phone or a combination of a computer and phone/tablet can get you pretty far on a DAW, but if you're looking to level up, click the links below to check more resources. There is a price range of options, but none of these add-ons are required.

PLUGINS

Plugins can give you access to more instruments, sounds and effects to use in your track.

[NATIVE INSTRUMENTS](#)

A powerhouse for virtual instruments and effects, offering pro-level sounds for beats, synths, and full-band productions.

[SPITFIRE AUDIO](#)

Lush, cinematic sounds for orchestral and ambient textures, perfect for scoring, pop production, and adding rich depth.

[SOUNDS SPICE](#)

A massive library of royalty-free loops, samples, and beats—ideal for adding pro-quality sounds to your music instantly.

[ARTURIA](#)

Vintage synth emulations and cutting-edge effects that bring warmth, character, and analog-style tones to your productions.

MIDI KEYBOARDS

A MIDI keyboard is more than a piano, it's a controller that can give shape to many kinds of instruments & sounds in your track.

[AKAI MINI PLAY MK3](#)

Compact and portable with built-in sounds and drum pads, making it a great choice for on-the-go creativity.

[M-AUDIO KEystation 49 MK3](#)

A simple, full-sized MIDI keyboard perfect for learning piano parts and controlling software instruments in your DAW.

[ARTURIA MINILAB 3](#)

A compact mini MIDI in the Arturia family, accompanied by a drum pad + sounds and instruments software package as well.

[ARTURIA KEYLAB MK3](#)

A premium MIDI keyboard with weighted keys and deep integration for Arturia's synths and major DAWs.

AUDIO INTERFACES

An Audio Interface can filter or enhance the quality of sound while you capture live sounds and play back your song.

[FOCUSRITE SCARLETT SOLO](#)

A beginner-friendly interface with one mic input, ideal for singer-songwriters recording vocals and instruments.

[FOCUSRITE SCARLETT 2I2](#)

An upgrade in the Focusrite family of Audio Interfaces that can accommodate two input devices or audio channels.

[AMBIENT EVO USB](#)

A budget-friendly plug-and-play USB interface, great for quick demos and basic home studio setups.

[UNIVERSAL AUDIO VOLT 2](#)

A high-quality interface with vintage-style preamps for warmer, more professional-sounding recordings.

MICS

Microphones capture vocals or live instruments, which you can lay down in your track to build your song.

[RODE NT1](#)

A quiet, detailed condenser mic with a warm tone, perfect for clear, natural vocal and acoustic instrument recordings.

[SHURE SM58](#)

A durable, industry-standard dynamic mic, great for both live performance and home recording.

[SHURE SM7B](#)

The ultimate vocal mic for smooth, radio-quality recordings, loved for its warm sound and noise rejection.

MONITOR HEADPHONES

Monitor headphones help you control overflow audio as you record vocals or live instruments, as well as monitor the quality of sound on your track when you play it back.

[AUDIO-TECHNICA WTH-M20X](#)

Affordable studio headphones with balanced sound, perfect for beginner mixing and monitoring.

[SONY MDR-7506](#)

A studio classic with clear, detailed sound, making them perfect for mixing and monitoring vocals and instruments.

[SENNHEISER HD 599](#)

Open-back headphones for a natural, spacious sound—great for critical listening and long sessions.