IN THIS CHAPTER

- Finding out what GarageBand is
- Checking out what you can do with GarageBand
- Discovering what you can't do with GarageBand
- Exploring the differences between the Mac version and iOS and iPadOS versions
- Checking requirements
- Taking a sneak peek at the recording sequence

Chapter 1

Introducing GarageBand for Macs and iDevices

When GarageBand was introduced at Macworld Expo in January 2004, Apple CEO Steve Jobs informed the audience that one out of two adults play a musical instrument but that almost none of them have recorded themselves playing.

Why not?

Because before GarageBand came along, recording live music decently was just too complicated. It required expensive and hard-to-use software and even more expensive and equally hard-to-use hardware, as well as a basic understanding of audio engineering.

GarageBand changed everything. If you want to record yourself singing or playing an instrument — any instrument — GarageBand lets you do it without spending

a lot of time or money. Better still: GarageBand will give you professional-sounding results even if you don't know the first thing about audio recording or engineering.

In this chapter, you begin your acquaintance with GarageBand. First, you learn a bit about what it is and what you can do with it, along with what it is not and what it can't do. You explore the differences between the Mac version and the iPad and iPhone version and review the system requirements for both platforms. Finally, you finish with a quick look at the process of transforming the song in your head into a recording suitable for sharing.

What Is GarageBand?

GarageBand for the Mac is a complete recording studio that includes hundreds of realistic-sounding instruments, effects, and presets configured by experienced recording engineers.

GarageBand for the iPad and iPhone is also a complete recording studio, but the iOS and iPadOS versions are designed for the touchscreen and include realistic-sounding touch instruments you "play" onscreen.

In a nutshell, GarageBand — on either platform — combines everything you need to record, mix, master, and share music with others.

TIP

GarageBand's default settings and templates are a big part of the reason why GarageBand is so great, especially for beginners. The instruments and audio effects sound great right out of the box, and they rarely require much (if any) tweaking. It's kind of like having a crew of professional recording engineers inside your Mac or iDevice.

There has never been a program quite like GarageBand; it's the *perfect* introduction to multitrack audio recording on Apple devices. I mean that. GarageBand is easy, friendly, forgiving, and fun on all platforms and you can't beat the price.

TECHNICAL STUFF

Multitrack recording means recording instruments or vocals with each instrumental or vocal performance recorded on its own track. The sound contained on each track can be adjusted independently of other tracks. Ultimately, the tracks are combined (that is, mixed) in a pleasing manner to create the final product.

I've used 'em all; if you're new to audio recording, nothing else even comes close to GarageBand. You're gonna love it.

What Can You Do with GarageBand?

GarageBand does things that used to require hours in an expensive recording studio. The following is a fairly comprehensive list of what you can do with GarageBand:

- Record vocals.
- Record acoustic instruments.
- Record software instruments via MIDI (Musical Instrument Digital Interface; more on that in Chapter 2).
- Record electric guitars and basses with GarageBand's virtual amplifier models, so that you can get just the sound you want.
- "Punch in" to a section of an otherwise excellent track to re-record over your mistakes.
- Adjust the sonic (sound) characteristics — volume, equalization, echo, reverb, and so on — for each track individually (all these elements are part of mixing a song, which I cover in Chapter 10) and for the song as a whole (in other words, mastering, which I delve into in Chapter 11).
- Make music using prerecorded loops.
- Combine (mix) multiple tracks of music or loops or both into a two-track (stereo) song file.
- Record a track while listening to (monitoring) one or more other tracks.

This list doesn't cover *everything* you can do with GarageBand, but it at least gives you the gist of the cool stuff you can do.

What Can't You Do with GarageBand?

Well, there's not much GarageBand can't do. When I wrote the first edition of this book, GarageBand's biggest shortcoming (versus more sophisticated recording-studio-type software or an analog recording studio) was that it allowed you to record only one track at a time.

That shortcoming is long gone. Today's GarageBand supports recording on as many tracks at once as your hardware interface (see Chapter 2) and Mac support. Today, its fewer remaining shortcomings are less troubling.

Although you can change the time signature anywhere in a song without missing a beat (pun intended), it's not easy. So, if you tend to write songs with multiple time changes, GarageBand may not be the best tool for you.

Moving right along, some other things you can't do with GarageBand include typesetting a book, removing red-eye from a digital photograph, and sending your mom an email message. But you knew that already (I hope).

Finally, it's possible to create a song that has too many instruments, effects, or tracks for your Mac or iDevice to handle. The older your device (and the less RAM it has), the more likely you'll encounter this issue sooner rather than later. Although this problem can happen when you use higher-end audio software, it happens sooner and with fewer tracks, effects, or instruments in GarageBand.

The next section covers GarageBand's system requirements, so I'll hold the gory details until then. Suffice it to say that newer Macs and iDevices run GarageBand more efficiently than older ones.

Checking Your System Requirements

GarageBand does a lot of intense processing behind the scenes, so it requires more horsepower than some other applications. So, before you go any further with GarageBand, make sure your Mac or iDevice is up to snuff.

The official requirements for Macs

The system requirements for Macs are

- A Mac running macOS 12.3 or later
- At least 8GB of RAM
- At least 2GB free space on your startup disk for the default install or at least 21GB free space on your startup disk for the full install with all instruments included

Now, please allow me to add *my* two-cents worth regarding what I think is required: GarageBand may run on a 7- or 8-year-old (or older) Mac that meets the preceding requirements, but it probably won't run very well. And 8GB of RAM may not be enough for some advanced productions.

One last thing: Older Macs with Intel processors and only 8GB RAM are more likely to choke when running GarageBand; newer Macs with Apple silicon (M processors) run GarageBand far more efficiently, even with only 8GB of RAM.


TIP

Regardless of which type of processor is in your Mac, I recommend that you quit all other apps when you use GarageBand and quit GarageBand (GarageBand ➪ Quit GarageBand) immediately when you're finished using it each and every time.

The official requirements for iDevices

Following are the system requirements for iDevices:

- An iPhone, iPad, or iPod touch running iOS 16.0 or later

Here's my one-cent worth: GarageBand may run on older iDevices that support iOS 16, but it probably won't run as well as on a newer device. If you have more than one iDevice, use the newest one for your GarageBand recordings.

What Else Do You Need to Run GarageBand?

Even if you don't acquire a single hardware or software item recommended in Chapter 2, you can have a lot of fun using nothing but GarageBand.

If your Mac has a built-in microphone, as most Macs (and all iDevices) do, you can use that microphone to record vocals and musical instruments. The quality will not be as good as connecting just about any external microphone — even a cheap one. But in a pinch, you can use a built-in microphone to capture instruments and vocals.

On the Mac, you can use GarageBand's onscreen keyboard or musical typing keyboard to play the built-in software instruments, as shown in Figure 1-1. However, it's hard to play music with any precision by clicking a mouse or pressing a key, and you can't really play chords with either.

GarageBand for iDevices offers an array of Smart instruments, as shown in Figure 1-2, which are designed for the touchscreen and are easier to use than either of the Mac version's onscreen keyboards.

Pause for a brief interlude about tape — the old kind (cassette, ½-inch, 1-inch, and 2-inch) and the new kind (hard or solid-state drive) in the sidebar, "Recording with tape versus hard drive or SSD."

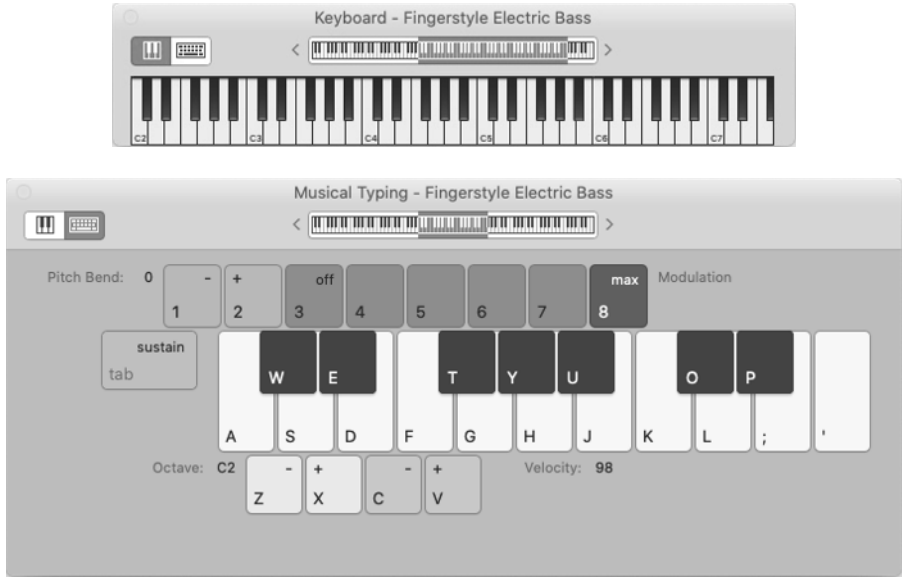


FIGURE 1-1: GarageBand for Mac has a tiny onscreen keyboard (top) and musical typing keyboard (bottom), in case you don't have an external piano-style MIDI keyboard handy.

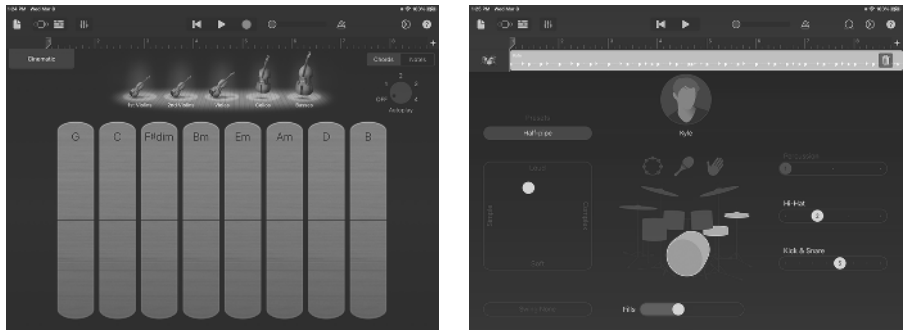


FIGURE 1-2: GarageBand for iDevices has Smart instruments including Smart piano (top left), Smart guitar (top right), Smart strings (bottom left), and Smart drums (bottom right).

RECORDING WITH TAPE VERSUS HARD DRIVE OR SSD

In the old days, you recorded to tape. The more tracks you wanted to record at a time, the more expensive the studio time, equipment, actual tape, and so on. Hobbyists recorded two, four, or eight tracks at a time onto tape that was ⅛-, ¼-, or ½-inch wide. Professionals tended to record 16 or more tracks at once onto 1-inch or 2-inch tape. The more tracks a studio could record at a time, the more you paid per hour to use that studio.

The specialized equipment used in the professional or semi-professional recording studio — particularly the multitrack tape recorders and mixing boards (or consoles) with 16 or more tracks, as shown in the following figure — were (and still are) quite expensive.

permission from Studer Professional Audio GmbH

Luckily, hard drives work as well as (or better than) tape recorders for storing recorded audio, and big, fast hard or solid-state drives are dirt cheap compared to almost any decent multitrack tape-recording device. Better still, a hard drive doesn't come with a predefined track limit. Put another way, an 8-track tape recorder can record only eight tracks at a time, maximum. A hard drive lets you record (and mix and master) a virtually unlimited number of tracks, software and hardware setup permitting.

Much of the music you hear today has never been anywhere near magnetic audio tape. Instead, it has become cheaper, faster, and easier to avoid tape entirely and record tracks direct to disk — which is precisely what GarageBand is doing when you record a track.

Recording with GarageBand: A Few Teasers

Before I move on to the discussion of your recording space and audio gear, I think you should have a slightly clearer picture of the way this recording-studio-in-a-box works. I cover this material throughout the book in glorious detail, but the following brief "sneak peek" sections should make it easier to grok the big picture.

The first sneak peek walks (actually, more like sprints) you through the process of making songs with GarageBand on either platform. Then, the second and third sneak peeks provide a quick overview of the user interfaces for Macs and iDevices, respectively.

Sneak peek 1: The recording sequence

When the folks at Apple say GarageBand contains everything you need to create songs, they aren't kidding. It really does give you everything you need to record, edit, loop, use software instruments, overdub, mix, master, and even make MP3 or AAC audio files (or audio CDs) that you can share with friends or even sell.

I delve further into every step of the process in upcoming chapters. For now, here's a painless introduction to the process of making a multitrack audio recording:

1. **Select or write the material.**

   I know this seems obvious, but it bears mention just the same. Creating an audio recording, like so many things in life, is subject to the GIGO effect — garbage in, garbage out.

   There are, of course, exceptions. If you prefer jam bands, aural soundscapes, random noise, trance music, or Brian Eno, you can probably skip right over this step. As for the rest of you: In my humble opinion, things usually work out better if you have an idea of what you want to record *before* you launch GarageBand.

2. **Rehearse, if necessary, recording your rehearsals if desired.**

   Rehearsal can and will make your recording sessions faster and easier.

TIP

Later in the book, I countermand this advice and tell some of you to record every note you ever play. When I produced the band Vengeance, who were all really good players, I would say: "Tape is cheap. Studio time isn't. I record every note from the moment you plug in until you walk out of the studio. I'm not losing a single usable note just because the tape wasn't rolling."

As for me, I'm such a terrible musician that I never even record a take until I can play the part without mistakes (or at least play the part without a mistake in every measure).

If you have more than a drop of musical talent, though, you might want to record your practice takes. Sometimes, that first or second "practice" take turns out to be the best.

If tape is cheap, disk drives are cheaper, which is a good thing because GarageBand chews up storage space at a rapid clip. My songs range from a couple of MB for the simplest ones to well over 200MB for more complex tunes with more tracks. And I may be working on as many as a dozen or more different tunes at any time. The point is, it won't take long to amass many gigabytes of GarageBand files on your Mac or iDevice.

TIP

Is your main disk drive (Mac) or internal storage (iDevice) filling up? Mac users can archive files to the cloud or an external hard or solid-state drive. iDevice users can move files to the cloud or an external storage device. And storing your files in the cloud makes life easier if you use GarageBand on more than one device.

3. **Record tracks.**

   When you know what you're trying to do, record the tracks for it. Record as many tracks as the song requires and record them until each performance is as good as it can be.

4. **Edit and overdub.**

   As soon as all (or most) of your song's tracks are in the can, it's time to fix what ails them. Most people, including many professional musicians, can't record every track perfectly on the first take (Neil Young is a notable exception). There are often imperfections, major and minor — an unwanted breath in the wrong place, guitar string noise in a quiet passage, a dog barking in the background, or whatever. Listen to your tracks with a critical ear, and then fix or replace anything that doesn't sound right to you.

5. **Mix.**

   When all (or most) of your tracks represent the best performance you can possibly create, it's time to begin mixing. When you *mix,* you adjust each track's individual *level* (volume), *equalization* (tone), and *pan* (placement left, right, or center in the stereo sound field), and add audio effects such as echo or reverb, striving for a perfect mix of tracks that blends well and sounds good to your ears.

6. **Master.**

   If you've made it through Steps 1 through 5, you're so close to completing the song that you should be able to taste it. But before you break out the bubbly,

you probably want to master your masterpiece. In the simplest of terms, *mastering* is like mixing, but now you adjust audio controls such as level, equalization, compression, expansion, and limiting and apply them to the entire song, rather than any single track.

Mastering isn't rocket science. All you're doing is adjusting the tonal qualities and dynamics of the song the same way you adjusted those things for individual tracks when you mixed. Just play with the mastering effects until the song has the sound you're looking for, and you're done.

This simplistic overview of the process represents the traditional workflow: Rehearse, record, edit and overdub, mix, and master.

7. **Share your work with others.**

   If you did a good job on the song, you'll want to share your brilliance with others by creating an MP3 or AAC file of the song and attaching it to an email or text message or making it available on the web. Or if you want to go old-school, you can even burn the song to an audio CD.

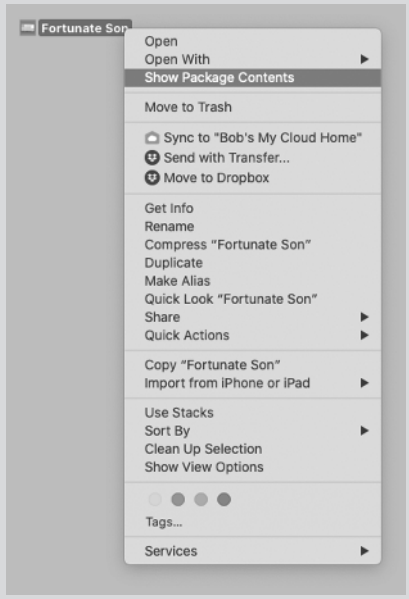
Seven simple steps are all it takes to create and share a magnum opus of your very own from scratch.

Before I close out this chapter, here's a quick gander at the program that makes the magic happen on the Mac and iDevices.

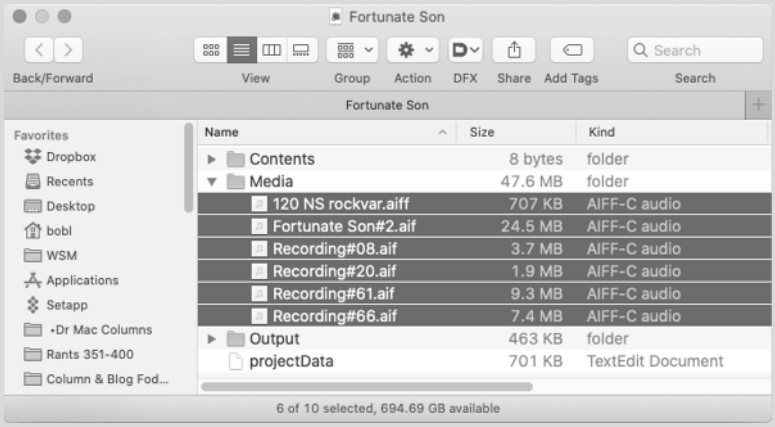
PACKAGING YOUR MUSIC ON A MAC

Technically, the file you create when you use the Save or Save As command on a Mac is a package file. A *package* is a special kind of macOS document that is represented by a document icon but acts more like a folder under certain conditions. In other words, GarageBand's package documents, like folders, contain other files. But when you open a package document (by double-clicking it, choosing File ➪ Open, or using the ⌘+O shortcut), rather than revealing its contents, the package document opens the application that created it. Therefore, when you open a GarageBand package document, it opens in GarageBand.

The secret to seeing inside package documents is to right-click or Control-click the file and then choose Show Package Contents from the shortcut menu, as shown in the following figure.



Inside a GarageBand document package, you'll find (among other things) a Media folder. Inside the Media folder are the individual audio files that represent the tracks you've recorded for that song, which are selected (highlighted) in the following figure. You may never need to see what's inside a GarageBand document package, but if you ever do, now you know how to do it.



Sneak peek 2: GarageBand for Mac

I start this quick look at GarageBand for Mac with a peek at its main (really, only) window.

TIP

As you get to know GarageBand, you might want to choose Help ➪ Quick Help (or click the Quick Help icon in the toolbar) and also enable Help ➪ Quick Help Follows Pointer (so it displays a check mark). You can now point at most items on the screen to see a brief description what it is and what it does, as shown for the workspace in Figure 1-3.

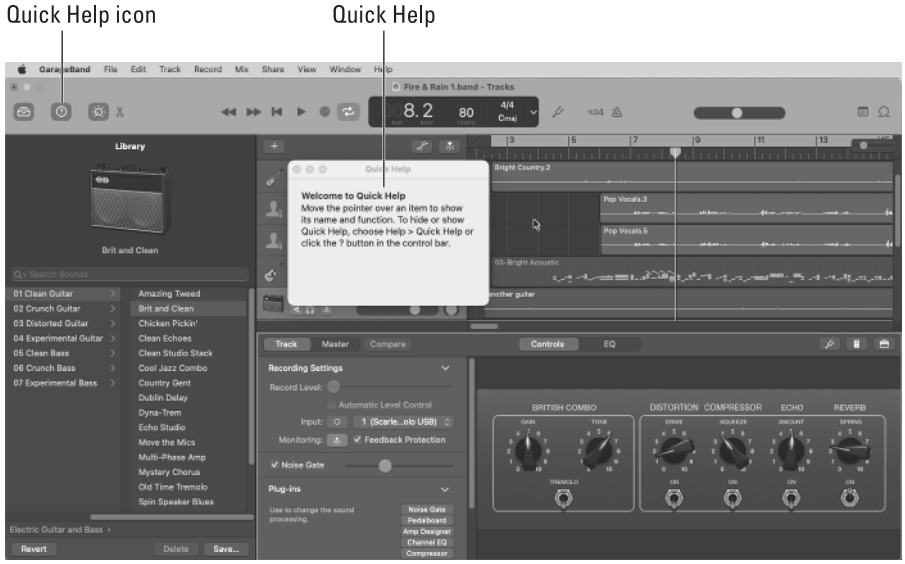


FIGURE 1-3: GarageBand's main (only) window with Quick Help.

So that's the user interface — where the magic happens — but that's not what you see after you launch GarageBand. Rather, the first thing you see is the Choose a Project dialog, shown in Figure 1-4.

To open an existing project, click Recent or Open an Existing Project.

To create a new, empty project:

1. **Click New Project in the sidebar.**
2. **Click the Empty Project icon.**
3. **Click the Choose button.**

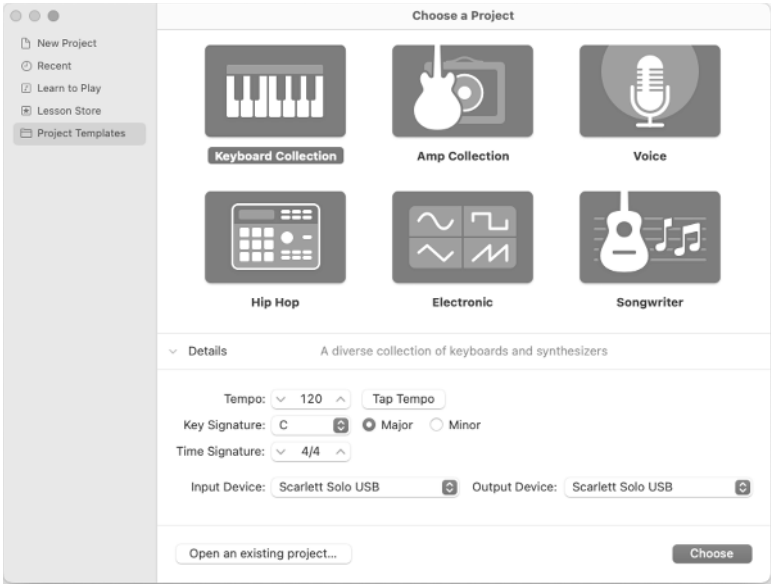


FIGURE 1-4: The Choose a Project dialog offers six project templates.

To create a new project prepopulated with tracks, do the following:

1. **Click Project Templates in the sidebar.**

   I delve deeper into the Choose a Project dialog and templates in Chapter 4.

2. **Check out the templates and their prepopulated tracks.**

   By the way, don't worry about that stuff at the bottom of the Choose a Project dialog — namely tempo, time, bpm (beats per minute), and key. You can read all about them in Chapter 4.

3. **Select a template, and then click the Create button.**

   The next thing you see is a GarageBand project (song) with a handful of tracks already created. Figure 1-5 shows the tracks created when you choose the Amp Collection template.

That's all you need to know for now. If you can't wait to find out more, Chapters 4–8 have more on laying down tracks; Chapters 9–11 have the scoop on turning tracks into polished, finished songs.

FIGURE 1-5: A brand spankin' new GarageBand project from the Amp Collection template; just add magic and you could have a hit!

Sneak peek 3: GarageBand for iDevices

I would have started this quick look at GarageBand for iDevices with a peek at its main window, except that GarageBand for iDevices offers two different main windows. When you create a new project in GarageBand on your iDevice, you choose between using live loops mode and tracks mode, as shown in Figure 1-6.

You look at how both modes work and when you might want to use one or the other in Chapter 13 (live loops) and Chapter 14 (tracks).

TIP

Tap the Quick Help icon — the little question-mark-in-a-circle in the upper-right corner of the screen — to see pop-up help and hints, as shown in Figure 1-7.

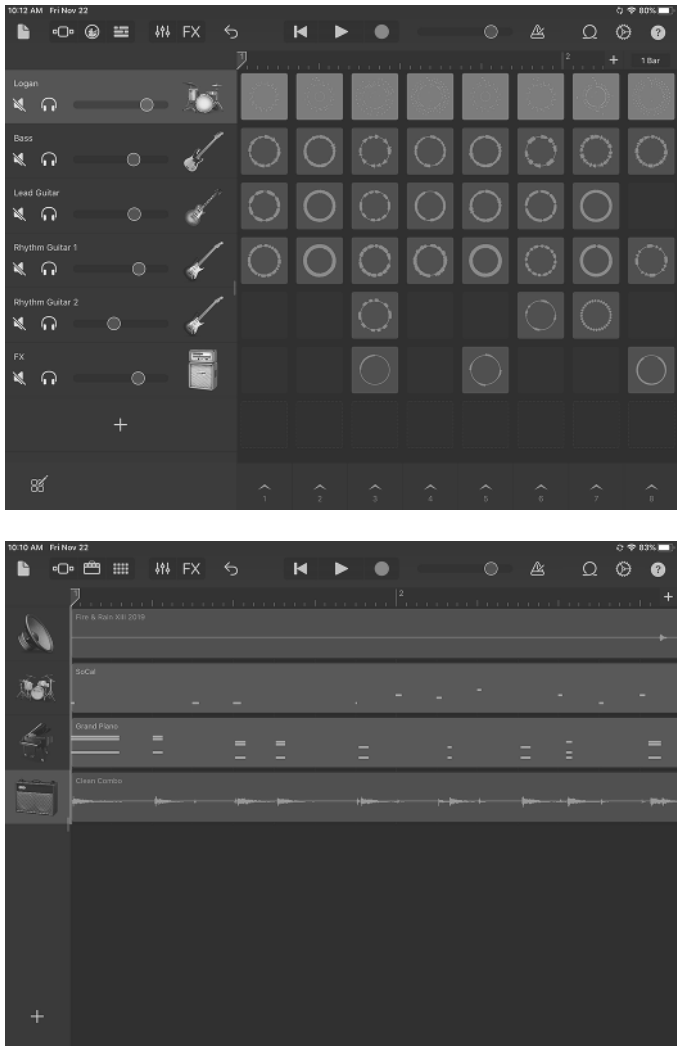


FIGURE 1-6: GarageBand for iDevices offers two ways to create music: live loops (top) and tracks (bottom).

Now you can tap any note with an angle bracket (>), such as the notes at the top left and bottom right in Figure 1-7, for additional information.

Although you create music with GarageBand in iDevices in one of two modes, you won't see either when you launch GarageBand. Instead, the first thing you see is GarageBand's Choose a Project screen, shown in Figure 1-8.

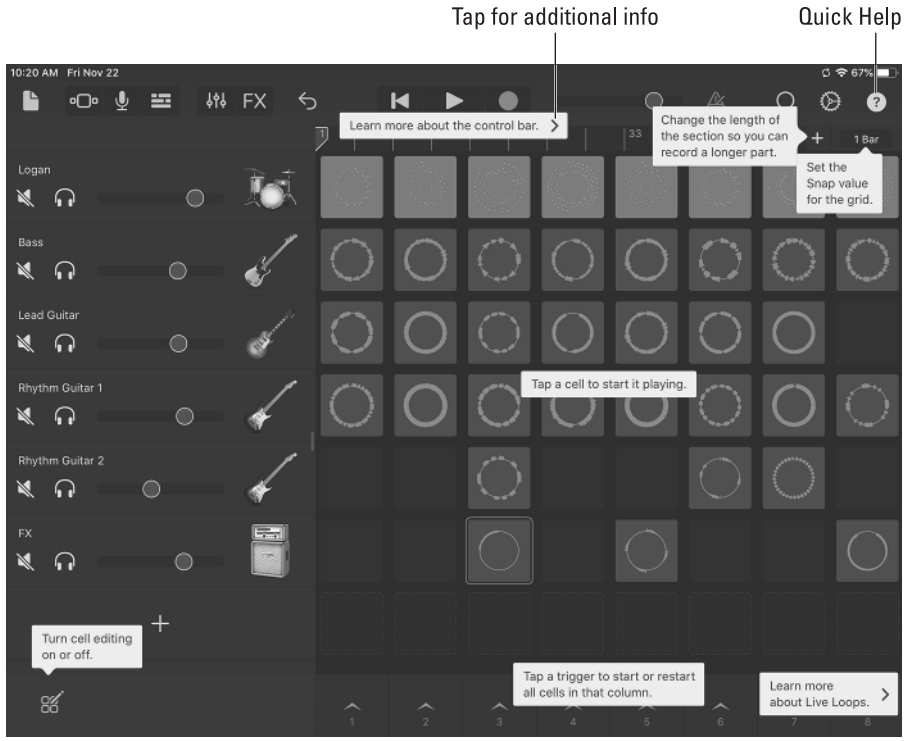


FIGURE 1-7: GarageBand for iOS's Quick Help.

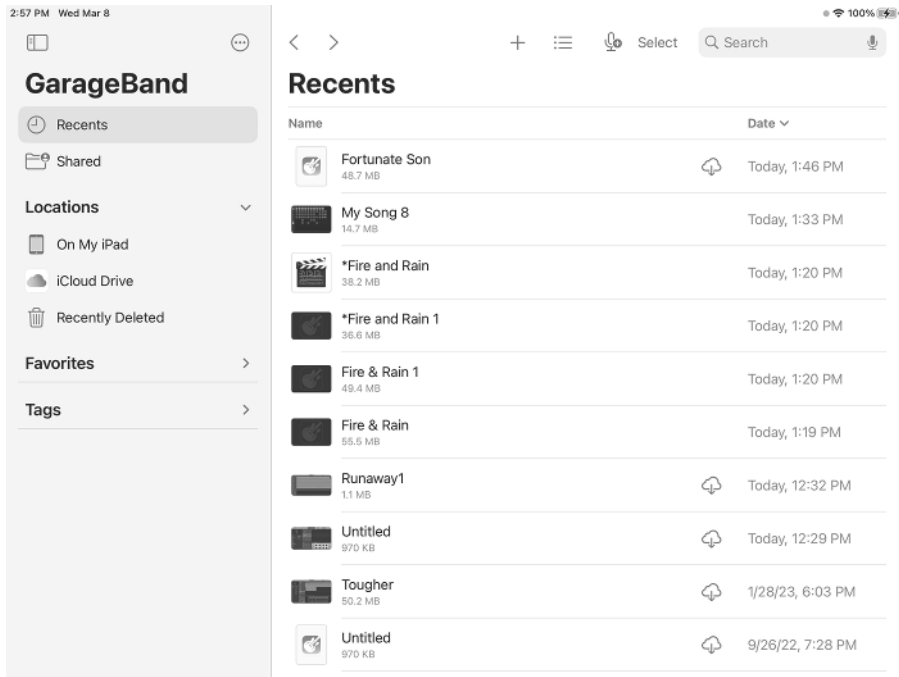


FIGURE 1-8: The Choose a Project screen in iOS.

From the Choose a Project screen, you can do the following:

- **Create a project.** Click the + at the top of the screen. Then, to work in live loops mode, tap Live Loops at the top of the screen and then tap one of the presets below or on the next page (swipe right to left to see additional presets). Or if you prefer to work in tracks mode, tap Tracks at the top of the screen and then tap the instrument you'd like to record (swipe either way to see additional instruments).
- **Open an existing project.** In the sidebar, tap Recents or one of the entries under Locations, and then tap the project you want to open.

You delve deeper into the Choose a Project screen and creating projects in Chapter 12.

That ought to hold you for now. If you can't wait to find out more, Parts 2 and 3 have more on recording on a Mac; Parts 4 and 5 cover the same ground for GarageBand on iDevices.

Onward!