

Spotify: Competitive Analysis

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INFO 608 Fall 2019

Assignment 2, Group 3, Group Design Brief

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Introduction

Spotify is a digital music streaming service providing users with over 50 million songs, videos, and podcasts from artists all over the world (Spotify Newsroom, 2019). Spotify was primarily founded as just audio streaming platform by daniel Ed and Martin Lorentzon (Iqbal, 2019; Spotify Newsroom, 2019). Many features, paid and free of charge, have been added since then but listening to music till date remains free. Its headquarters are located in Stockholm, Sweden. Launched on October 7th, 2008 Spotify currently has 232 million monthly active users (Spotify Newsroom, 2019).

Spotify offers listening to music as a free basic service, but it generates most of its revenue from Spotify Premium (Goodwater, 2018). Only 19% of the total revenue came from ads shown to non-Premium users in 2018 (Goodwater). Spotify Premium subscribers have access to advertisement-free unlimited music, unlimited skips, radio channel, sharing playlists, offline music, high sound quality and Spotify Connect (Spotify Newsroom, 2019). Users can create and share playlists as well as their own radio channels. It also recommends music based on past listening behavior. The music streaming service is available on multiple interfaces including a web player and apps for Apple and Android mobile devices and watches. Spotify Connect allows users to play their music through various WiFi connected devices like Chromecast, Amazon Echo, and Google Home (Spotify Newsroom, 2019).

Even with the highest number of users in Europe and North America, Latin America saw an increase of 83% in Spotify users, while remaining countries saw a 150% increase in within just one year between 2016 and 2017 (BusinessWire, 2019). On a yearly basis, there has been a 25% increase in Spotify users all over the world and a consistent increase of 32% in Spotify Subscribers (Goodwater, 2018). A survey from the same source shows that 44% of the monthly-active users, listen to Spotify on a daily basis. It is also the most popular with users under the age of 30 (Goodwater, 2018).

The most appreciated features of Spotify are the Spotify-curated playlists. One third of the users spend their time listening to these recommended playlists and another third spend listening to the playlists generated based on their music history (Goodwater, 2018). The European-based service provider offers an array of options for creating and interacting with customized playlists. Spotify Codes generates barcodes users can share to grant access to their own curated playlists. Spotify Time Capsule is a personalised playlist of 60 tracks designed around a specific period in the user's life. Discover Weekly is a playlist updated every Monday with new recommendations tailored to the user's music taste and songs that other, similar users are listening to. With other features like automatically creating playlists of most listened to music, keeping users up to date with new releases, and featuring a playlist for every mood, Spotify has become one of the most popular music streaming platforms.

User Groups

We identified four a-priori user groups and titled them The Casual User, The Music Professional, The Tune-Out, and The Motivator. These user groups were identified in part through Spotify features (extrapolated target users of certain features), known users (representative heuristics) and Spotify user statistics. Table 1 outlines each user group and surmised description.

Table 1. Theorized User Groups

User Group	Description
The Casual User	Uses Spotify periodically, and uses it when they want to listen to music as the only activity and for the purposes of enjoyment.
The Music Professional	Uses Spotify periodically, and uses it when they want to listen to music for the purpose of checking on new music by peers or their own stats.
The Tune-Out	Uses Spotify often, and only occasionally for the enjoyment of listening to music. Instead, they use music while multitasking to tune out the presence of other sounds such as in a public space (library, coffee-shop, etc), at work or on commute.
The Motivator	Uses Spotify often, and often for the enjoyment of listening to music. They use music while doing other tasks in order to motivate themselves to do that task or get 'in the mood' (the mood to focus, the mood to clean, etc.) Could also be called 'the jogger'.

Based on Iqbal's 2019 statistical summary, there are 217 million monthly active users (compared to Spotify's reported 232), and 100 million are subscribers. The average user listens to 41 unique artists a week and spends 25 hours a month listening to music on Spotify (Goodwater, 2018). Users are also loyal to Spotify, with 44% of the users who are active at least once a month are active daily (Goodwater, 2018). Spotify's users show near gender parity, with 56% of its listeners being male and 44% being female (Hwong, 2018). The average age is below 34 years old, with 18-24 year olds making up 26% of users and 25-34 year olds forming an additional 29% of users (Hwong, 2018). Under 18 was not collected in this study, so the real average age could trend younger.

Approximately one third of a user's average time is spent on Spotify curated playlists with another third spent on user curated playlists (Iqbal, 2019). Spotify curated lists include two main types, Genre and Mood. These can also be called context or content based playlists. There are more genre/content playlists than mood/context playlist (57% vs 36%; Jenkins & Joven, 2018). Based on playlist follower count, hybrid playlists (a mixture of both Genre and Mood) have the

highest median follower count (237k followers, despite only making up 7% of playlists), followed by context/mood playlists (160k followers), with genre/content coming last (103k followers) (Jenkins & Joven, 2018).

For musicians, according to Aguiar and Waldfogel (2018) as part of research conducted by the European Commission's Joint Research Center, inclusion in certain Spotify curated playlists can 'make' an artist's career. For example, inclusion in Spotify's 'Today's Top Hits' playlists (with around 20 million followers) increases streams which generates approximately \$116k-\$163k in revenue for the artist. They also found that previously unknown artists have found themselves on Billboard's Hot 100 list by being added to influential playlists (RollingStone, 2017). Other lucrative Spotify playlist for artists are 'New Music Friday' and 'Rap Caviar'. There is a separate Spotify for Artists account with additional features not covered here, but artists are still interested in what happens with the users. We used these facts to come up with the aforementioned user groups, segmenting the user groups by how often they use Spotify, their purpose of visit, and what type of playlists they use on Spotify.

Competitive Analysis

Dimensions

The following six dimensions were selected to reflect the different motivations and methods of accessing each music streaming service relevant to the four user groups. These criteria encompass factors that prompt users to choose one streaming service to suit their needs. Spotify users search for music, not only by song or artists, but based on an activity, task, or mood (Jenkins & Joven, 2018).

Organization and Navigation

Each service is assessed based on intuitive organization and whether navigation allows users to quickly find content to suit their needs. A well organized music streaming service responds to shifting goals and varied settings. The evaluation of each app's navigation focuses on the contents of the menu and how links are labelled to facilitate a user's movement through content. The criteria include: Is it possible to easily return to the homepage from anywhere? Where is the search bar located? How is content categorized?

Content

The content of a music streaming service is quantified as the number of songs available and what genres they primarily characterize. For the purposes of this analysis, other content, such as podcasts and audiobooks, are considered only if included in the service. These are judged by the number of offerings.

Mobile and Wearable Compatibility

Compatibility across devices and platforms filters the possible number of users. Each music streaming service in this analysis is offered on multiple platforms and devices. Compatibility is gauged by whether the service is available on multiple desktop and mobile operating systems and usability on these different devices.

Search Features

The search tool is a vital function to locate specific content within a music library. This report examines the utility of the search tool by quantifying the breadth of possible parameters (artist, album, song, lyrics, etc.) and the quality of the results. Did the search yield the desired result?

Suggestions and Playlists

The 'suggestions' function of each service tailors recommendations to the tastes of the listener. Each service in this report treats this feature differently, though all are intended to introduce the listener to something new based on algorithmic data from their past usage of the app. The criteria used to measure the quality of these 'Suggestions' or 'Just For You' features entails observing the quantity of the recommendations offered and their relevance to the genres and styles previously listened to. Several of these apps also work as "radio stations" when set to do so. This is one type of suggestion feature that users can activate to listen to an algorithmically determined playlist of related songs. 'Radio stations' and automatically recommended playlists have varying levels of responsiveness to user feedback.

Each music streaming service publishes curated playlists of music relating to particular mood, time period, or genre. These playlists are categorized in various formats and updated according to music trends. These are assessed based on quantity and breadth of offerings.

Price

Each service is available in several different free and paid subscriptions. The evaluation of price compares both free and monthly paid subscriptions and any free trial periods or offers that may exist.

Methodology

The four services were evaluated by two raters on a scale of 1 to 5 (1 being poor and 5 being excellent) on the chosen dimensions (content and price were excluded as they were numerical in nature). The ratings are displayed in table 2. Cohen's kappa, a measure of agreement between two raters, was calculated at .68. This is considered a substantial level of agreement, despite the raters using different platforms (one using an iPhone and the other using an

Android). This indicates that the companies have delivered similar experiences across both Apple and Android products.

Table 2. Ratings for each service by dimensions

Dimension	Rater 1 (iPhone)				Rater 2 (Android)			
	Spotify	Apple Music	Amazon Music	Pandora	Spotify	Apple Music	Amazon Music	Pandora
Organization	4	3	2	2	4	3	3	2
Content	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compatibility	4	2	4	4	5	2	4	4
Search	5	5	4	3	5	4	4	3
Suggestions	5	3	3	1	5	3	3	2
Price	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: Content and Price were not rated.

Table 3. Evaluations of each service by dimensions

Dimension	Spotify	Apple Music	Amazon Music	Pandora
Organization	See Rating	See Rating	See Rating	See Rating
Content	“50 million songs” (Spotify), podcasts and audiobooks	“50 million songs” (Apple), radio stations, podcasts in separate app	“Over 2 million curated songs” (Prime Music) or “Tens of millions of songs” (Amazon Music Unlimited) No podcasts	30 million songs (Goodwater, 2018)
Compatibility	Usable on PC and Mobile devices, from Apple to Android and Wearable	Usable on PC and Mobile devices, from Apple to Android and Wearable	Usable on PC and Mobile devices, from Apple to Android and Wearable	Usable on PC and Mobile devices, from Apple to Android and Wearable

	devices. Web music player does not work on all browsers. Compatible with Alexa, Google Home and Chromecast.	devices. Compatible with Google Home and Apple Homepod. Sonos and Alexa supported through apps.	devices. Compatible with Alexa and Google Home.	devices. Compatible with Alexa and Google Home.
Search	Search by artist, album, song, station, playlist, and podcast. Voice search supported through Google Assistant.	Search by artist, album, song, lyrics, station, playlist, and podcast. Integrated voice search voice search via Siri.	Search by artist, album, and song. Can use voice search. Searching by Alexa is a separate menu.	Search by artist, album, song, station, playlist, and podcast. Integrated voice search.
Suggestions	Daily “Made for you” playlists personalized from listening behavior. Curated playlists sorted by genre and mood.	“For you” tab showing recommended artists, songs, and playlists, and recent activity. Curated playlists sorted by genre, mood.	Personalized stations based on listening habits	Can personalize stations by thumbs up and thumbs down to customize a collection of songs.
Price	<ul style="list-style-type: none"> - Free (with ads) - \$9.99 / month individual plan - \$14.99 / month family plan - \$4.99 / month student plan 	<ul style="list-style-type: none"> - \$9.99 / month individual plan - \$14.99 / month family plan - \$4.99 / month student plan 	<ul style="list-style-type: none"> - Free with Amazon Prime (Prime Music) - \$7.99 / month with Amazon Prime (Amazon Music Unlimited) - \$9.99 / month without Amazon Prime (Amazon Music Unlimited) 	<ul style="list-style-type: none"> - Free (with ads) - \$4.99 / month (Plus) - \$9.99 / month (Premium) - \$14.99 / month (Premium Family) - additional subscriptions available

Spotify

With around 50 million songs, podcasts, and audiobooks (Spotify, n.d.), Spotify’s library of content is one of the largest among competing music streaming services. Spotify offers a free ad-supported streaming option in addition to individual, family, and student monthly subscription

plans for \$9.99, \$14.99, and \$4.99 per month respectively. The paid subscriptions do not advertise, support listening offline through downloads, and allow users unencumbered navigability. The free version prohibits offline listening and limits the number of times a user can skip songs.

Navigation is organized into three main tabs including 'Home', 'Search', and 'Your Library'. Content is searchable by artist, album, song, genre, or podcast. Both raters were in agreement that Spotify scored a 4 for organization. The app and desktop interfaces are intuitive and simple to use (Figures 1a, 1b, 1c and 1d). The web player is not supported on all browsers and the features available differ between devices. For example, the Apple Watch Spotify app functions as a music player rather than a tool to search for music and edit playlists. The app on Android and Apple phones offers full functionality. Spotify integrates with Alexa, Google Home, Sonos, Chromecast, Smart TVs, Playstation, Xbox One, and wearables including Apple Watches and Fitbits (Spotify). Relative to the competition, Spotify offers a high degree of compatibility across devices and platforms.

On the home screen, Spotify's 'Made for you' feature curates updating daily playlists of songs based on recent listening behavior. The content of these playlists is grouped by genre and includes recommended songs. Collections of songs curated by Spotify reflect larger listening trends and are labelled by genre, mood, motivational activity, and artist. Users also have the option of creating 'radio stations' from a root song or artist. These stations are customizable through feedback from the user with algorithmic adjustments responding to 'thumbs up' and 'thumbs down' buttons.

Apple Music

With a library of 50 million songs (Apple Music, n.d.), the breadth of content available through Apple Music rivals Spotify. Podcasts and other types of audio are available in separate Apple apps. With only individual, student, and family paid subscriptions offered, Apple Music does not provide a free option for listening. These plans cost \$9.99, \$14.99, and \$4.99 per month respectively. There are no advertisements and users have unlimited capacity to listen, skip, and download music.

The organization of the app requires the user to scroll to locate some categorization and suggestion options (Figures 2c and 2d). Both raters were in agreement, scoring a 3 in this category, indicating that Apple Music could be more intuitive to use. Navigation is separated into five main tabs including 'Library', 'For You', 'Browse', 'radio', and 'Search'. Unlike other music streaming services, the search tool supports locating content based on lyrics. Apple Music offers full compatibility with all Apple products and Siri voice controls (Apple Music). The service is available on Android devices and PCs, but is not as seamlessly integrated. Because of this, the degree of compatibility is somewhat decreased. Sonos and Alexa devices are compatible with Apple Music via the app.

The 'For you' tab of the navigation features recently played playlists and songs, while also recommending artists and songs based on individual listening behavior. The suggestions are labelled 'If you like (artist)' and followed by selections of similar artists and music styles. These change in response to the user's most frequently and recently listened to songs. Like Spotify and Pandora, Apple Music allows users to create 'radio stations' and provide feedback adjusting a personalized playlist.

Amazon Music

Amazon provides two streaming music options under the label 'Amazon Music': Prime Music and Amazon Music Unlimited. They differ slightly in what they deliver to the client. Prime Music is available for free to the user if they have an Amazon Prime account, but it does not have as much content as the other streaming music service they provide. Amazon Music Unlimited is a paid service with two different price points, one for Prime members and one for non-Prime members.

Navigation is separated into four main tabs including 'Browse', 'Recents', 'My Music', and 'Alexa'. In terms of organization, Amazon Music uses the same interface on the web (Figures 3a and 3b) and the same apps across devices (Figures 3c and 3d). The average rating on organization for Amazon Music was 2.5 out of 5, so there was some room for improvement. Both provide ad-free music playback and provide curated playlists and the ability for users to make their own playlists. Like Spotify, Prime Music and Amazon Music Unlimited provide personalized stations based on user listening habits. Prime Music and Amazon Music Unlimited both allow users to skip songs.

Amazon allows both text based search and voice based searching. Alexa is another method of searching that is not integrated into standard search. Per the organization notes above, it is a separate part of the app and web interface. Like Spotify, Amazon Music provides music recommendations based on historical listening data. Alexa will also help Amazon Music users to help pick new playlists for users, first Alexa will ask if there's a particular genre or tempo the user would like, then Alexa will offer samples of different playlists to accept or reject. If needed, Alexa will ask additional questions, typically concerning the context or mood of the desired music.

Pandora

Pandora has both free (with ads) and paid versions. Paid subscriptions include Pandora Plus for \$4.99, Pandora Premium for \$9.99, and Pandora Premium Family for \$14.99. Plus and Premium are for a single user, while Premium Family extends up to six accounts under the same subscription service. Premium is also discounted to \$4.99 for students of higher education institutions in the United States with valid verification, and at \$7.99 for members of the United States military, including active duty, reservists, retirees, veterans and families of the previous military statuses. Any paid tier of Pandora includes ad-free music streaming, the ability

to search and play anything, podcasts, unlimited skips, and unlimited offline listening. The only difference between plus and premium levels is that premium subscriptions are able to make and share playlists, while plus subscribers cannot.

Navigation is separated into four main tabs including 'For You', 'My Collection', 'Search', and 'Profile'. Pandora has some organizational differences between web interfaces (Figures 4a and 4b) on Mac and PC computers. There are fewer organizational differences between Apple and Android apps (Figures 4c and 4d). The average rating on organization for Pandora was 2 out of 5, the lowest of the four companies being assessed. Paid Pandora features include searching for specific songs, artists, and albums, whereas free users can search for songs and start a playlist/station based on that song's characteristics. Pandora integrates with Alexa, Apple TV, Android Wear, Apple Watch, Chromecast, Fitbit, Comcast XFINITY, Denon, DirecTV, Facebook, Google Home, and as apps on TiVO, Xbox, Roku, Playstation, and many smart TVs (Pandora, n.d.).

Pandora integrates suggestions directly with user feedback. When a song comes up on a station the user has an option to provide thumbs up (they approve) or thumbs down (they disapprove), the station adjusts what music is suggested based on the metadata of the music that has been approved or disapproved. Additionally, users can use several tools such as the 'add variety' feature which will mix up some of the previous ratings. As well, rather than disapproving of a song users can mark songs that they are 'tired' of listening to, which enables a delay for that song showing up on the playlist again.

Conclusions

In short, Spotify maintains its lead ahead of competitors in the market share through the use of our identified dimensions. According to Goodwater (2018) Spotify user satisfaction, measured by how likely a customer will recommend the service to others (NPS), is in the lead amongst competitors with scores between 22-28, Pandora is in second with scores between 14-17, Then Amazon Music with scores between 1 and 14 (varying widely) and then Apple Music with a consistent score of 4 or 5. In 2018, Spotify had the majority of the streaming music subscription market share with 36%. Apple music came in second with a 19% market share and then Amazon Music with a 12% market share (Midia, 2018). Pandora's 3% market share could be attributed to the fact that the subscription service it offers is relatively new. Spotify has a historical trend of maintaining customer usage and loyalty by integrating new features before their competitors, and will need to continue to do so. For this we have a few initial suggestions.

Implications and Recommendations

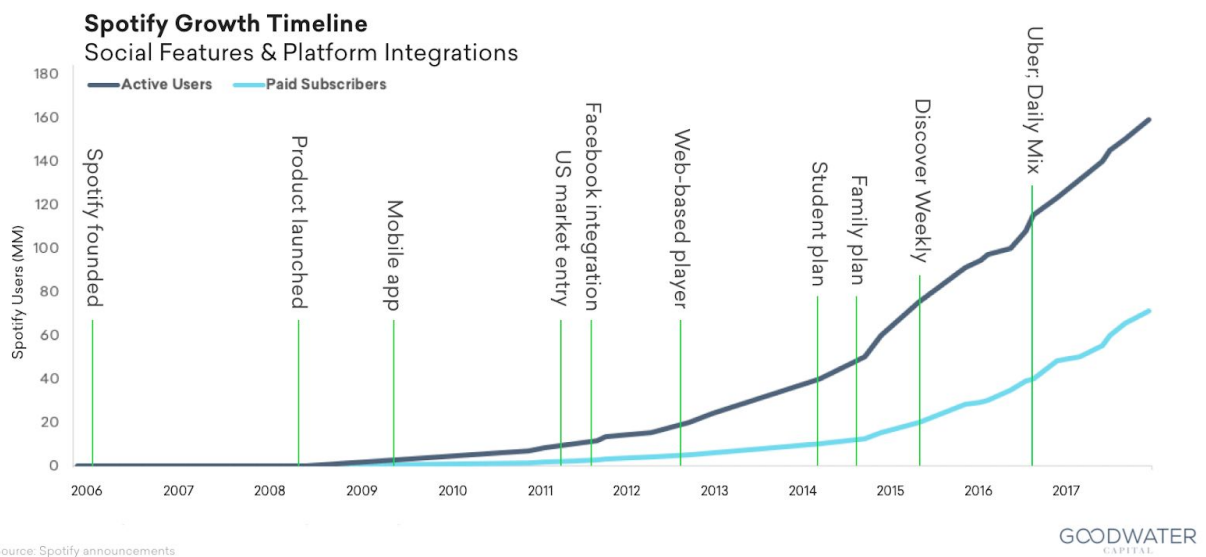


Figure 5. Spotify's growth by features.
Image from Goodwater (2018)

As shown in the graph above, Spotify maintains active development through their policies of an agile company (Kniberg & Ivarsson, 2012). For example, what is labeled as "Discover Weekly" in the image above was the inclusion of the user based suggested playlists. These playlists took the user's music history and recommended new songs, each user had access to their own unique playlist every week. Again, later, Spotify partnered with Uber to have their drivers play the Daily Mix playlist, thus indirectly reaching numerous people who used the rideshare company. Spotify will need another large feature or integration to maintain its market share against those competitors with large backers (Apple behind Apple Music, Google/Alphabet behind Google Play Music, and Amazon behind Amazon Premium Music). According to Goodwater (2018), some of the negative reviews of Spotify include information that could be fixed and most pertain to Spotify's free tier. One issue was a lack of integration with Apple Watch. Another issue revolved around the inability to rearrange songs in playlists. By adding integration with Apple Watch Spotify resolved one of the issues but the inability to rearrange songs within a playlist remains.

Other potential issues could exist that Spotify users would like to see. We plan to survey, interview or observe Spotify users to determine what specific issues they have with the service, if any, and pose suggestions for future changes.

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Appendix

Spotify

<https://open.spotify.com/>

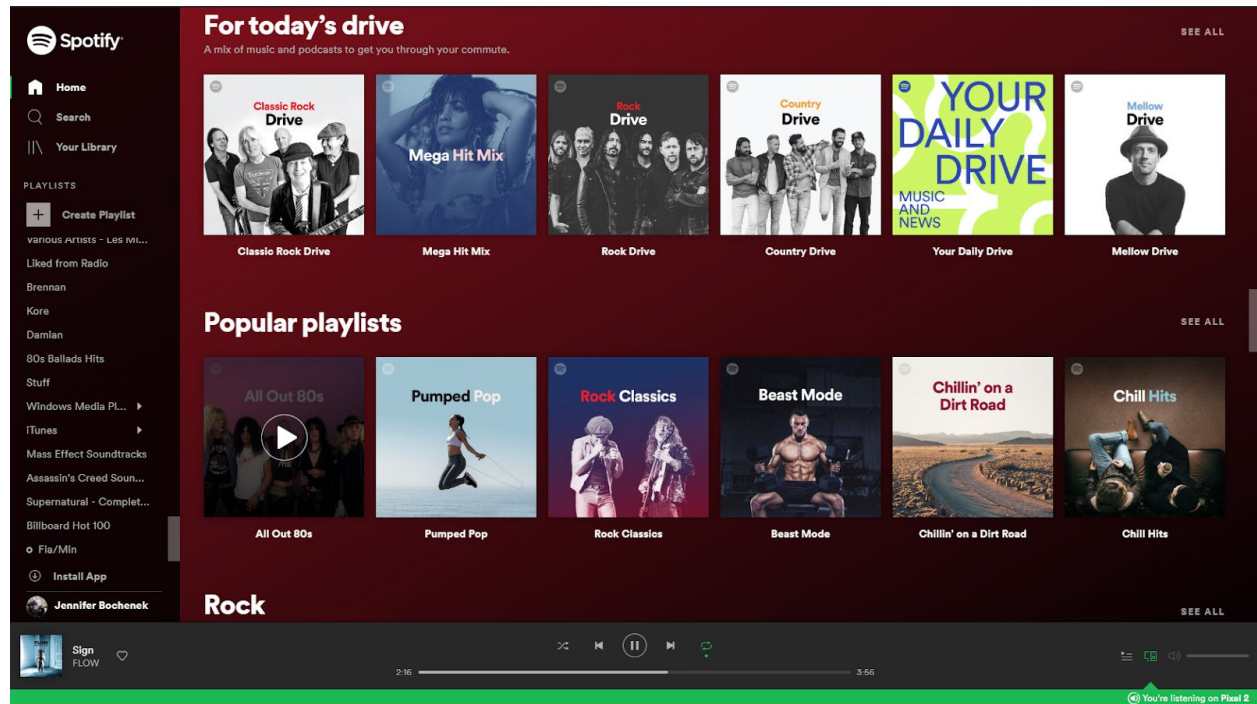


Figure 1a. Screenshot of Spotify on a PC using Chrome

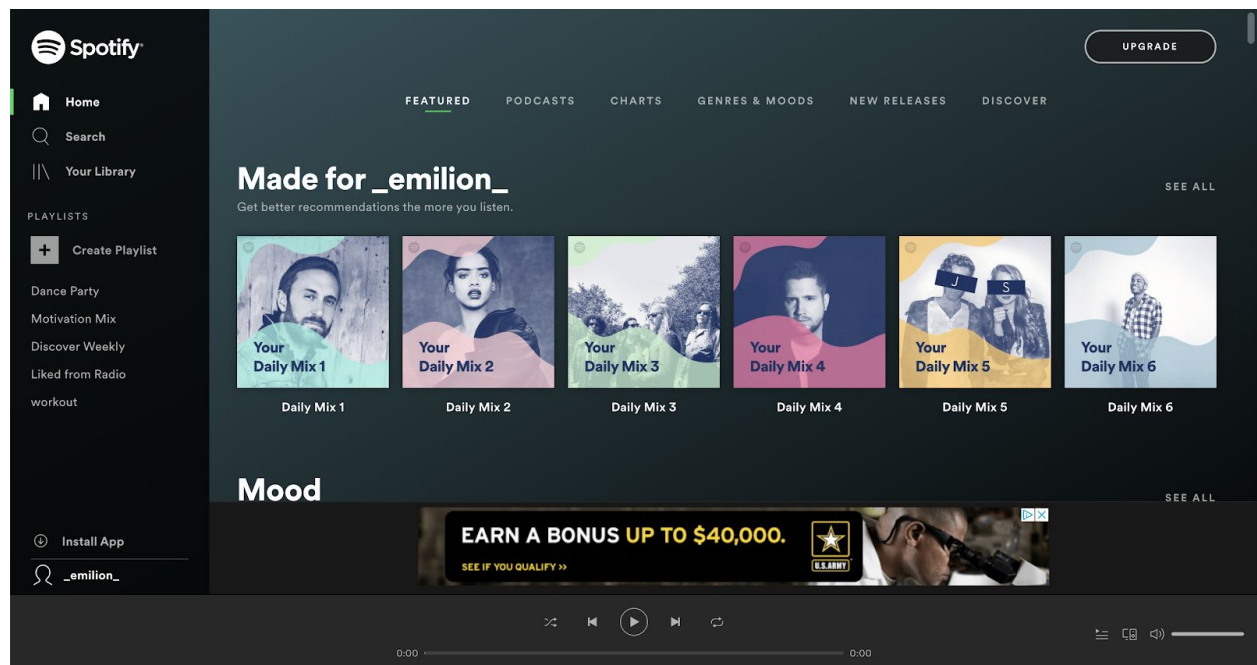


Figure 1b. Screenshot of Spotify on a Mac using Chrome

Note: Spotify web player is not supported on Safari

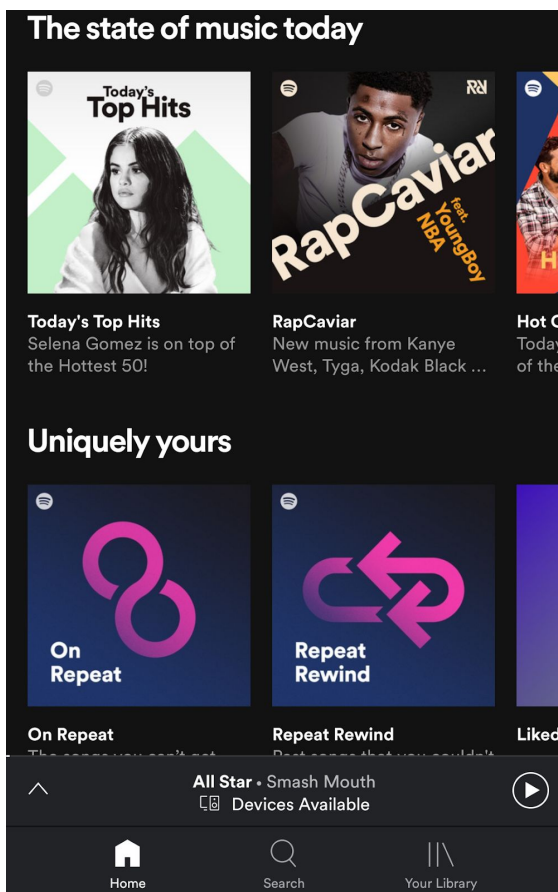


Figure 1c. Screenshot of Spotify on an Android Device running Android 10

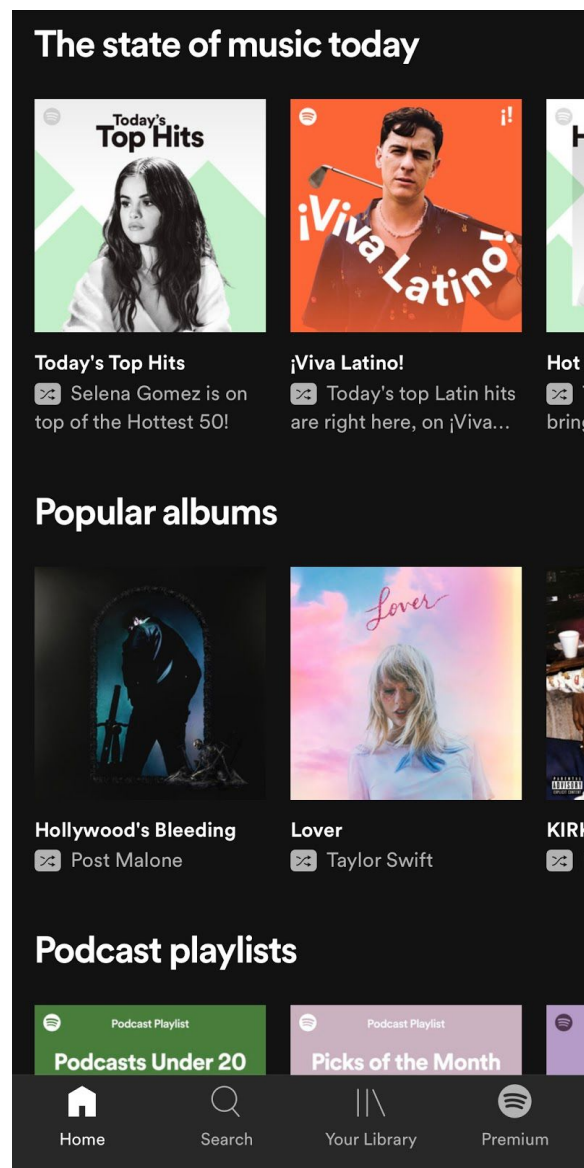


Figure 1d. Screenshot of Spotify on an Apple Device running iOS 13

Apple Music

<https://www.apple.com/apple-music/>

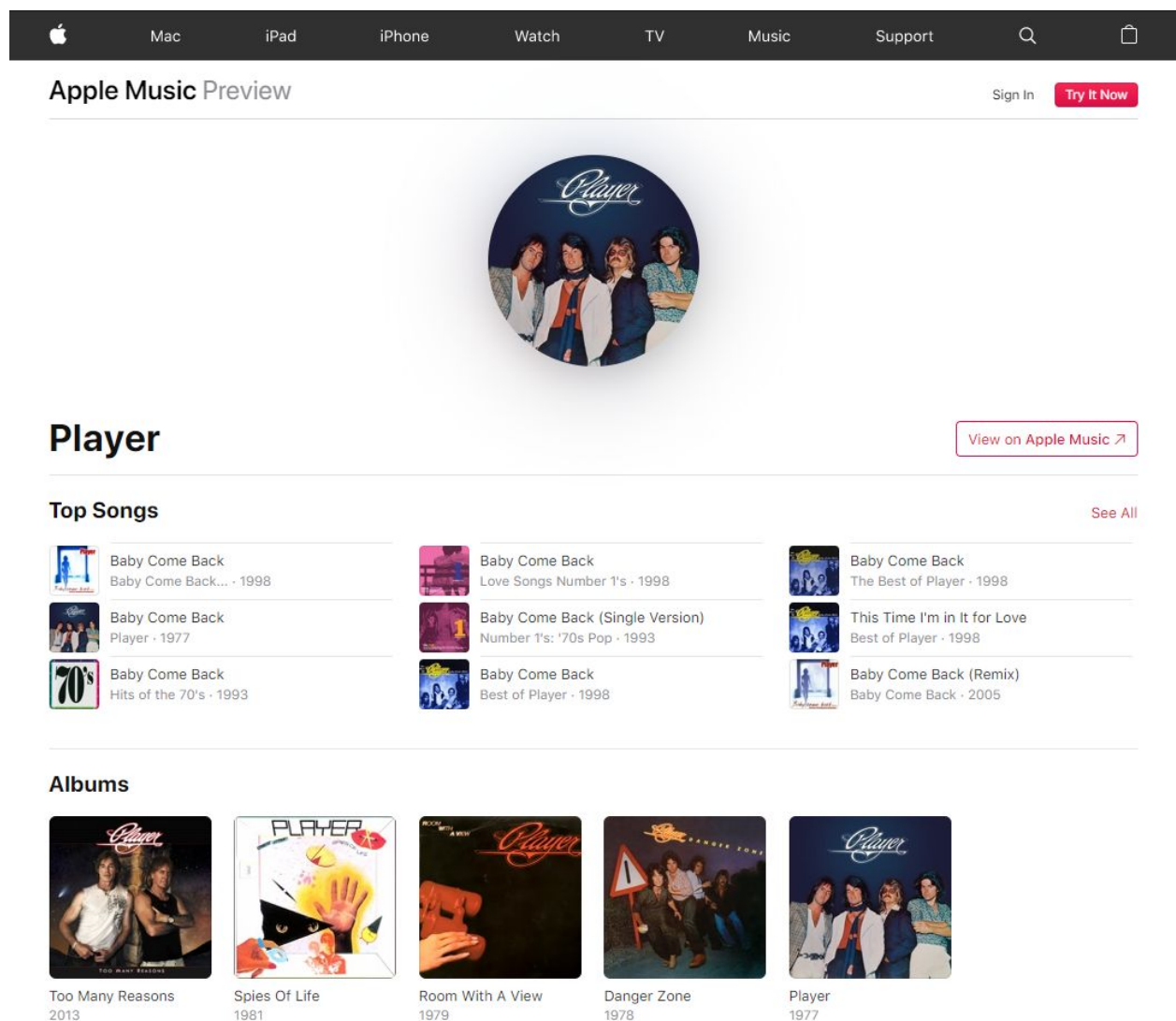


Figure 2a. Screenshot of Apple Music on PC using Chrome

Note: Did not have full access to Apple Music due to paywall

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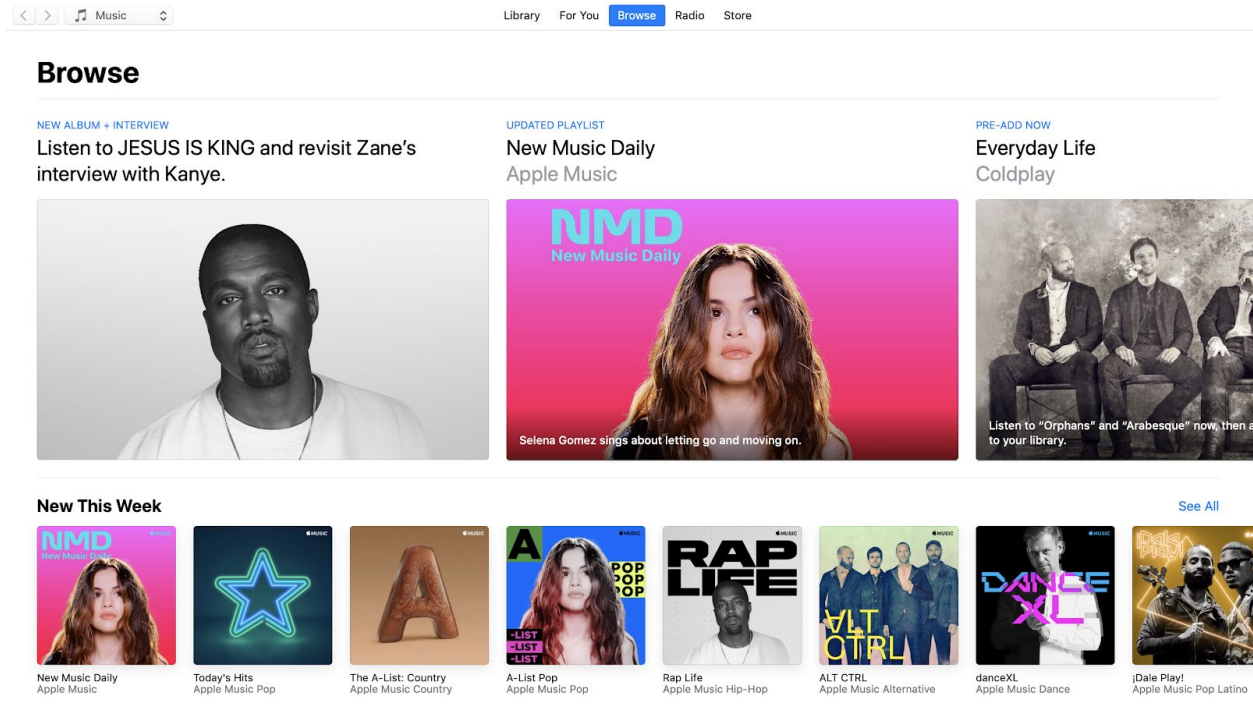


Figure 2b. Screenshot of Apple Music on Mac app

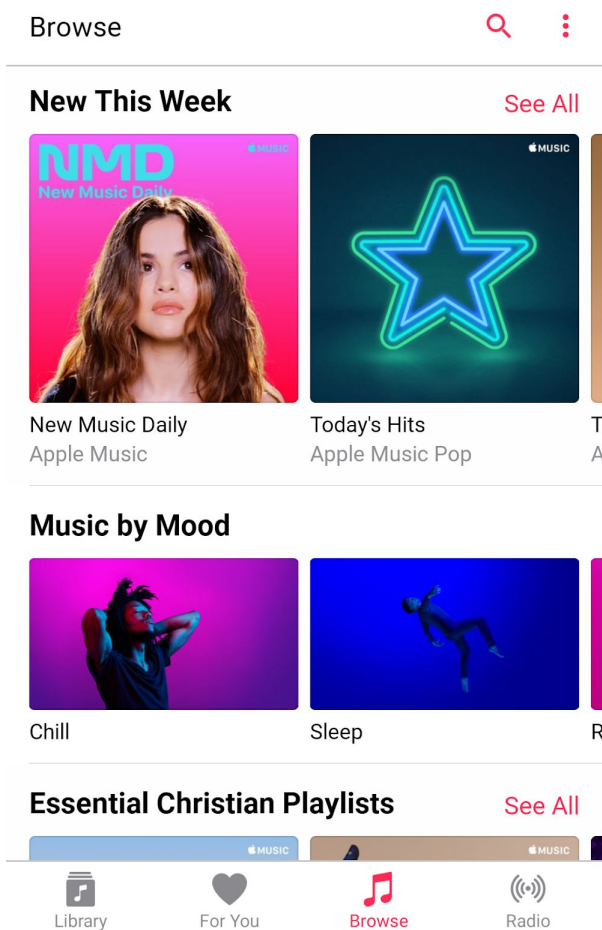


Figure 2c. Apple Music app on an Android Device running Android 10

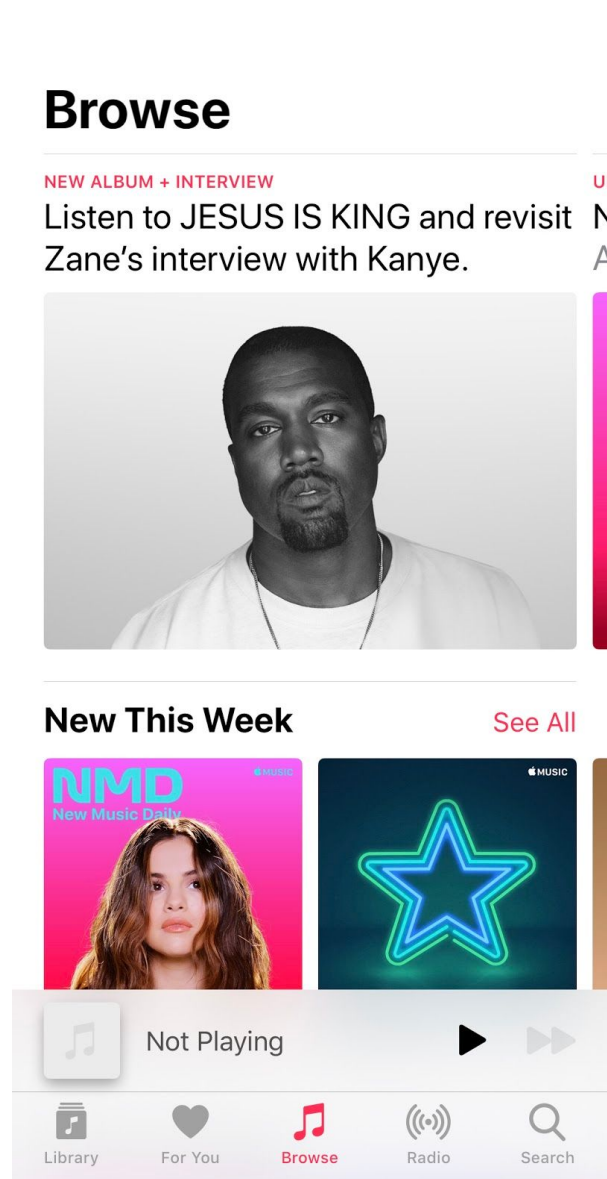


Figure 2d. Apple Music app on an Apple Device running iOS 13

Amazon Music

<https://music.amazon.com/home>

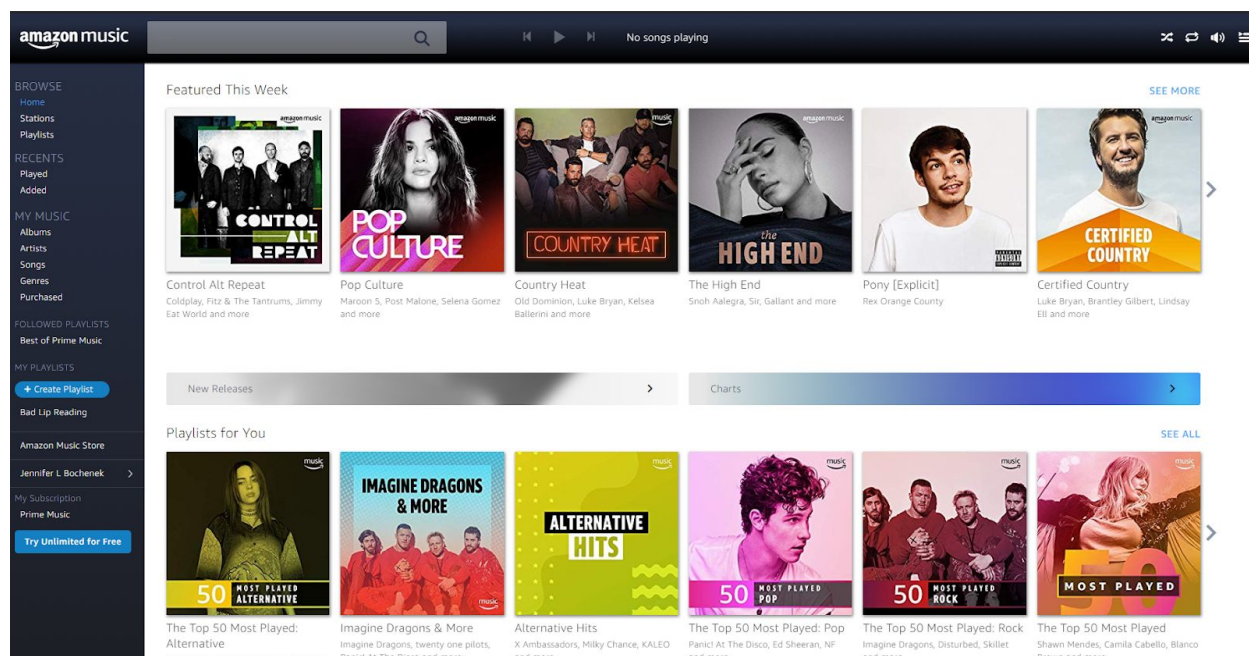


Figure 3a. Screenshot of Prime Music homepage from a PC using Chrome

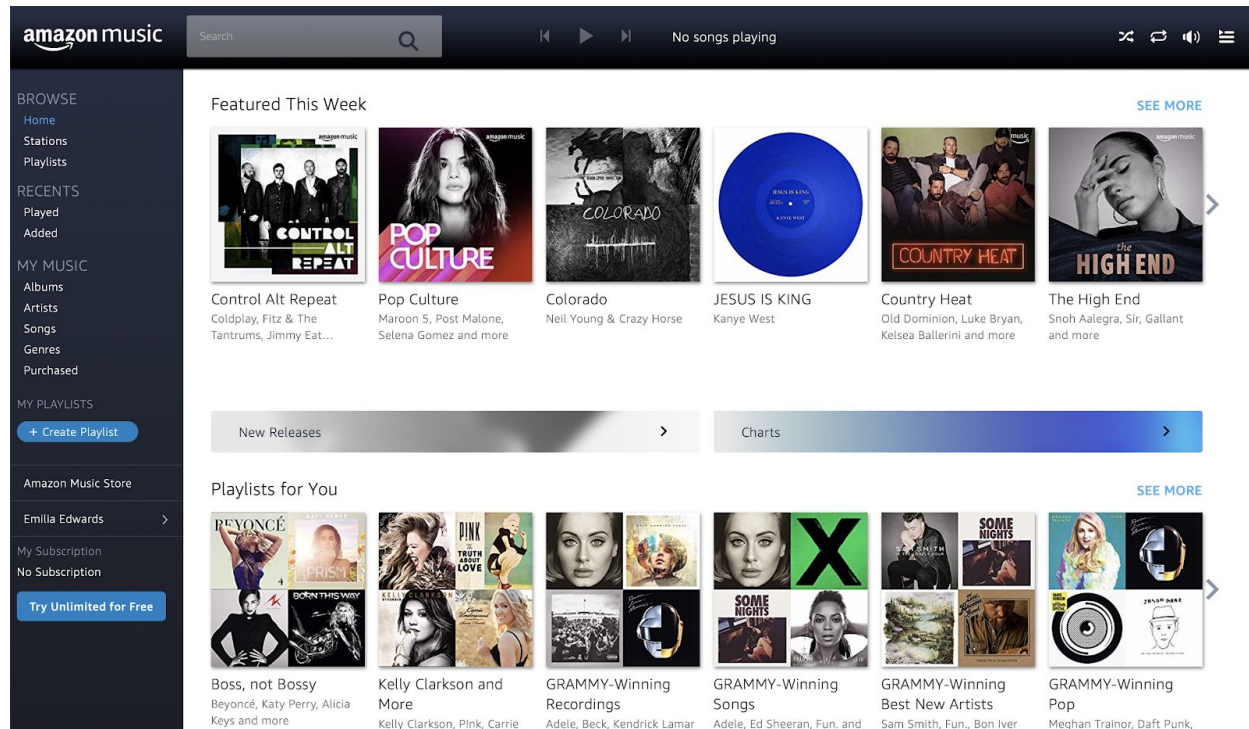


Figure 3b. Screenshot of Prime Music homepage from a Mac using Safari

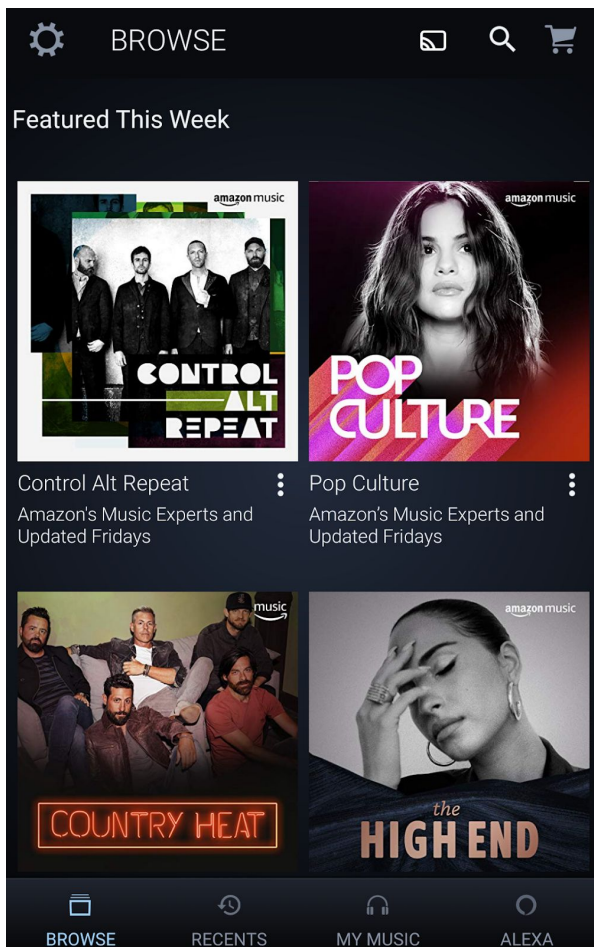


Figure 3c. Prime Music app on an Android Device running Android 10

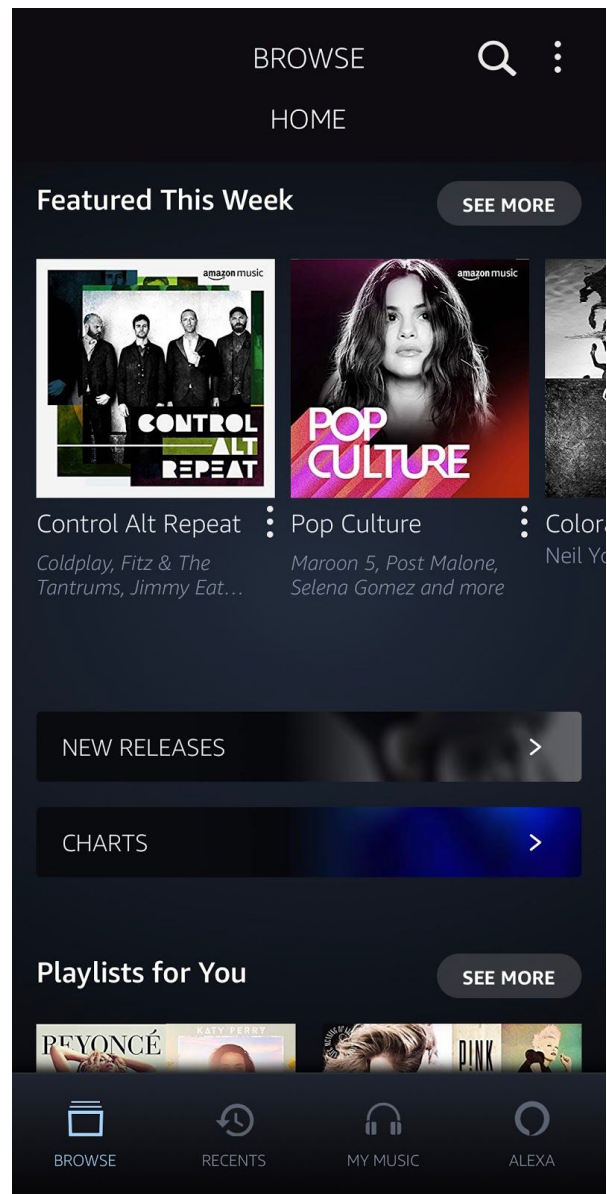


Figure 3d. Prime Music app on an Apple Device running iOS 13

Pandora

<https://www.pandora.com/>

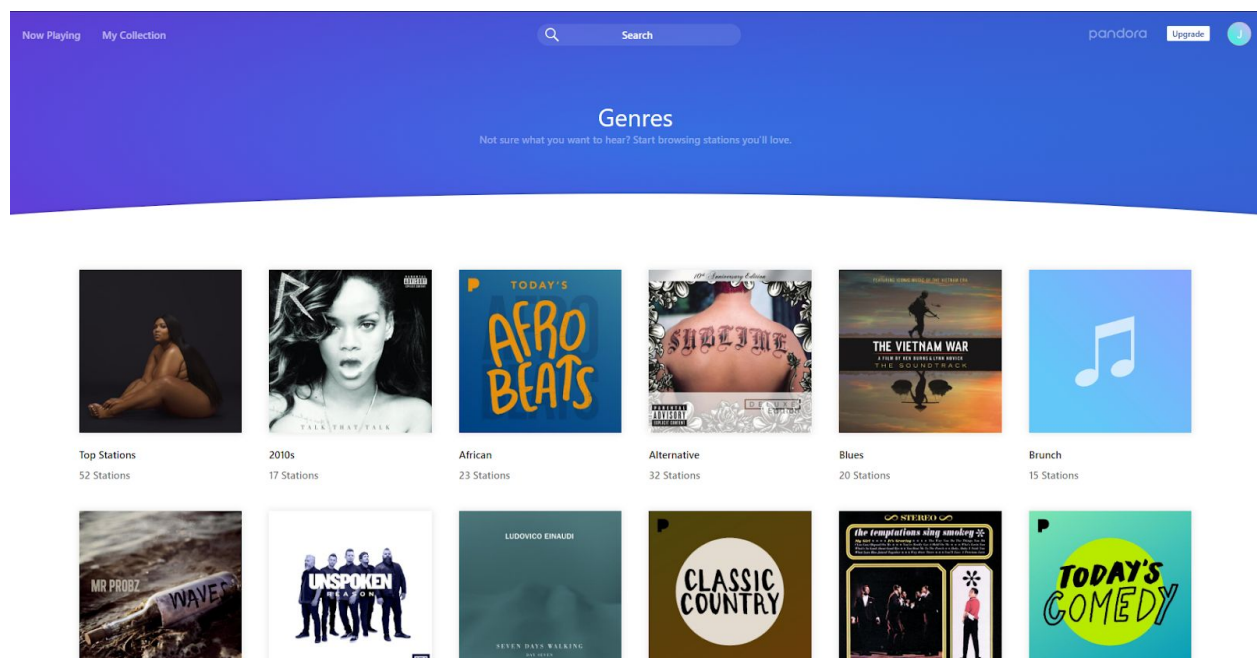


Figure 4a. Screenshot of Pandora Music homepage from a PC using Chrome

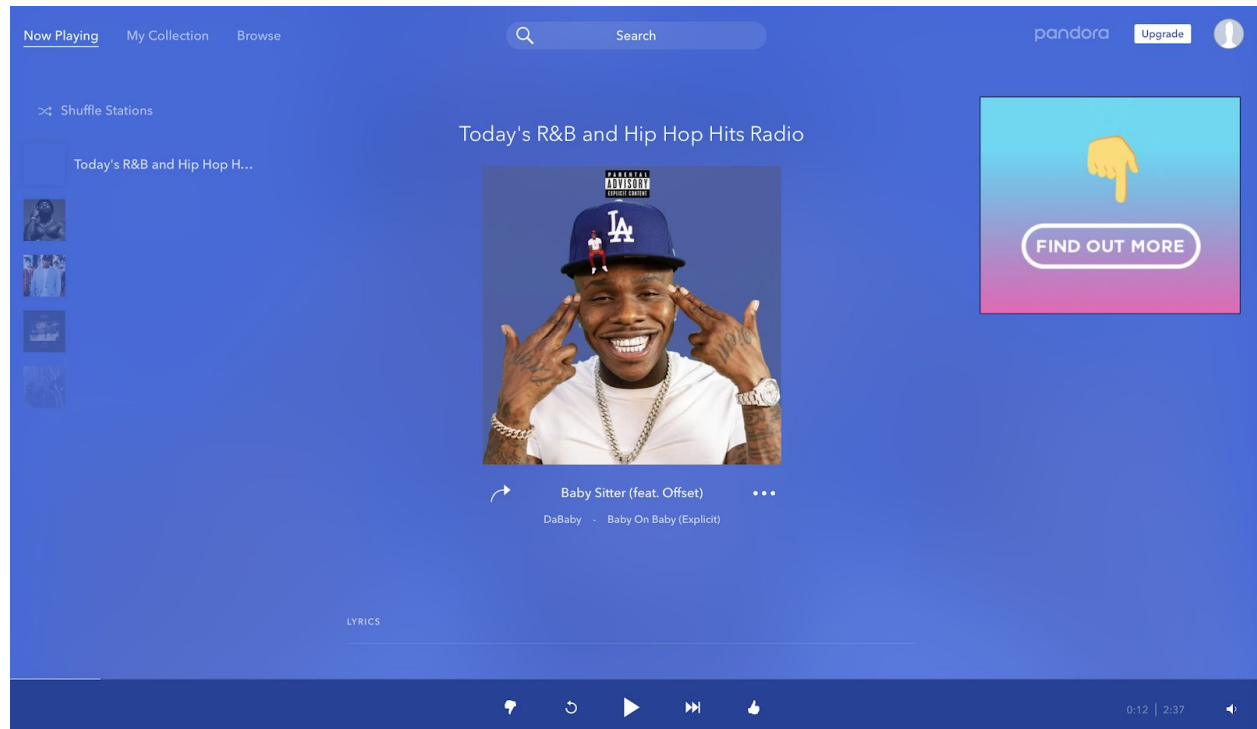


Figure 4b. Screenshot of Pandora Music homepage from a Mac using Safari

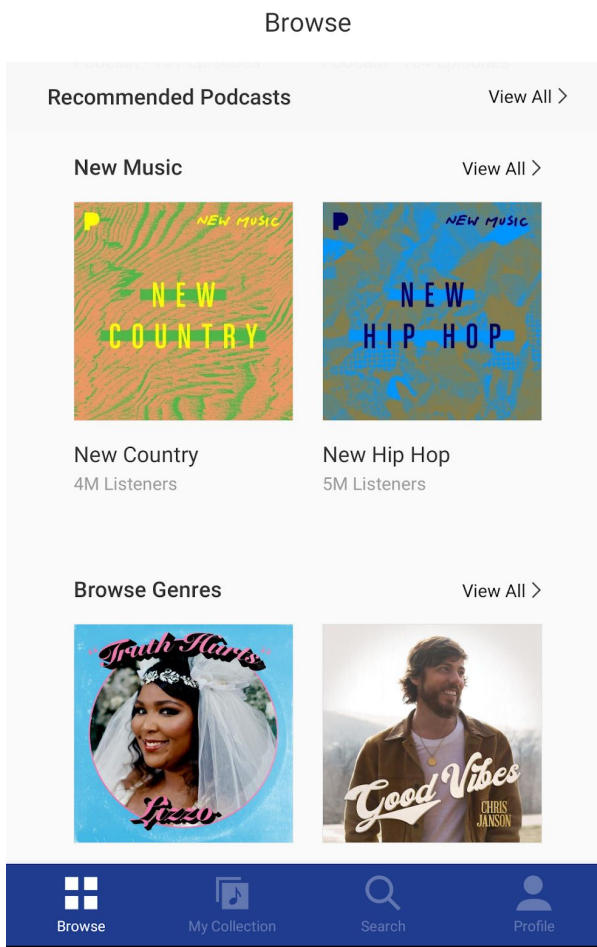


Figure 4c. Pandora Music app on an Android device running Android 10

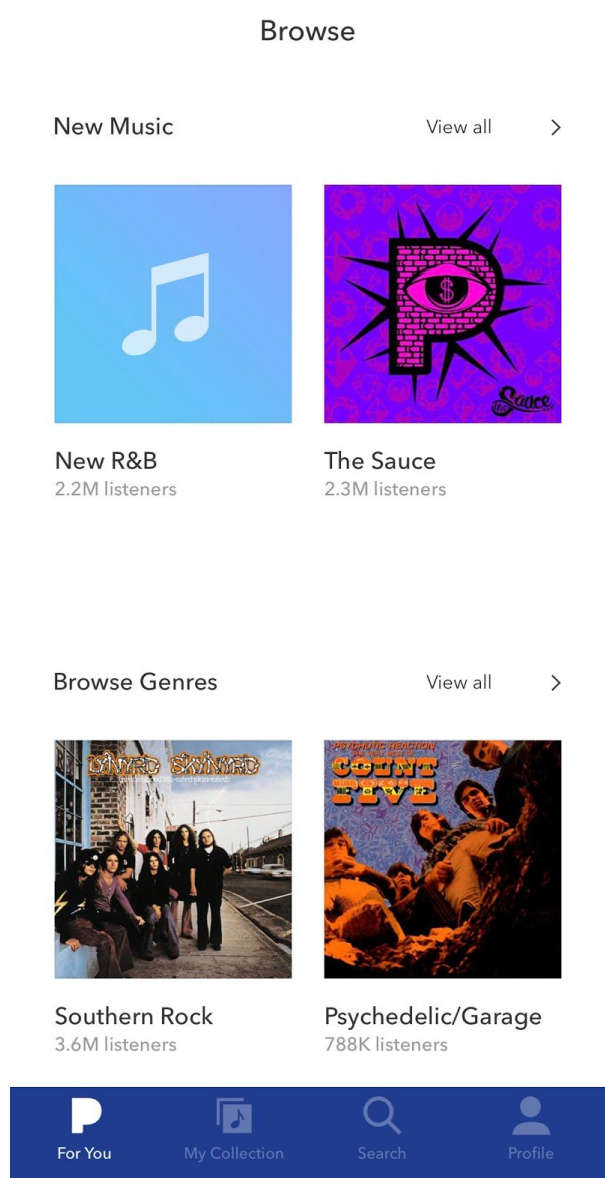


Figure 4d. Pandora Music app on an Apple Device running iOS 13