Step 1: Self-observation and self-interview

Your Demographics

Approximate age	24
Gender	Male
Occupation	Student
Nationality	Chinese

These items are not compulsory, only complete them if you are comfortable with providing this information. If not, then just leave them blank.

Self-Observation
(state how and why interacting with music management-related information collection; give a step-by-step description of your actions; use photos, screenshots, etc. as appropriate)

Date, day of week	August 23, 2024
Time	7:30 PM
Location (e.g., my bedroom)	My Living room

Self-Interview
(use question and answer format)

Q1: How do you organize your music collection?

A1: I mostly organize my music through playlists and albums. I create different playlists for various moods or activities, like "Workout Tunes," "Chill Vibes," and "Study Sessions." I also group albums by genre or artist, which makes it easy to find exactly what I want to listen to.

Q2: How do you usually acquire and access your music?

A2: I get most of my music from streaming services like Spotify and Apple Music. I usually add new songs to my collection based on recommendations from the platforms or suggestions from friends. Occasionally, I stumble upon new tracks on YouTube or social media and then add them to my streaming library. I also keep a few downloaded tracks, particularly older songs that I bought before streaming services were around.

Q3: What do you do with your collection, especially when it comes to sharing music with friends?

A3: I really enjoy sharing music with friends, usually by sending them playlists or links to specific songs. We often chat about music, and I'm always eager to share my latest finds—they do the same with me. Sometimes, we even create collaborative playlists where everyone can contribute their favorite tracks. I also occasionally share music clips on social media.

Q4: When does a song become part of your collection? What makes it "yours"?

A4: A song becomes "mine" when I add it to one of my playlists or my music library. It's not just about adding it, though—if a song resonates with me emotionally or connects to a particular memory, it feels like it truly belongs in my collection.

Q5: Is there a difference between the music you listen to and the music that's considered "yours"?

A5: Absolutely. There are songs I enjoy listening to but don't necessarily add to my collection, like background music in a café or tracks I'm still exploring. A song only becomes part of "my" music when I really connect with it or feel it fits with my taste.

Q6: What genres of music do you listen to and consider part of your collection?

A6: I'm mainly into pop, rock, and indie music—these make up most of my collection. However, I do enjoy listening to classical music or jazz from time to time, but I don't usually consider them part of my core collection.

Q7: How do you discover and acquire new music?

A7: I find new music through recommendations on streaming platforms, shares on social media, and suggestions from friends. Sometimes, I actively search for new tracks in certain genres, while other times, I just stumble upon something cool. Friends and family also introduce me to new songs. I typically add a few new tracks to my collection each week.

Q8: What formats and sources do you use for your music?

A8: Most of my music comes from streaming platforms like Spotify and Apple Music, but I also have a few legacy formats like CDs and MP3 files that I downloaded back in the day. These are usually rare tracks or albums I bought before streaming became popular. Occasionally, I listen to the radio or find new music on YouTube. Depending on the mood or situation, I might use different sources—for example, YouTube for live performances and streaming platforms for everyday listening.

Q9: Do you have a specific way of organizing or searching through your music collection?

A9: I mostly organize my music through playlists that are categorized by mood, activity, or genre. I also tag some songs by artist or album name to make it easier to find specific tracks. This setup helps me quickly find what I'm in the mood to listen to.

Q10: How big is your music collection? Do you ever find songs in your collection that you forgot you added?

A10: My collection includes a few thousand songs spread across dozens of playlists and albums. Every now and then, I do find a song in a playlist that I forgot I added, especially if it's a playlist I haven't listened to in a while.

Q11: How do you store and listen to your music?

A11: I primarily use Spotify and Apple Music on my phone to store and listen to my music. All my songs are easy to access and manage through these apps. I also use my computer for organizing playlists and albums. As for hardware, I typically listen to music on my phone, tablet, computer, or smart speaker. Occasionally, I'll watch music videos or concert recordings that go along with the songs I like.

Q12: When do you usually listen to your music?

A12: I mostly listen to my music when I'm by myself, like during my commute, while working, or when I'm relaxing. I also play music when I'm hanging out with friends, usually picking songs that everyone enjoys. I listen to different genres depending on the occasion—for instance, upbeat music for working out and softer tunes for winding down.

Q13: How do you share your music with others?

A13: I typically share my music by sending playlists or links to songs directly to friends. Sometimes, I share songs on social media or play music at gatherings to set the mood.

Q14: Do you create or record your own music? If so, how do you share it?

A14: I occasionally dabble in creating my own music, mostly as a hobby. I use music production software to record and edit my tracks. Sometimes I share them with close friends, but mostly it's just for my own enjoyment.

Q15: Is there anything else about your music collection habits that stands out?

A15: Besides everything I've mentioned, I often revisit my collection to reorganize or update my playlists. This helps keep my collection fresh and ensures I always have the right music for my current mood.

Summary

(what have you learned about your own methods and motivations with respect to music management-related information?)

1. Personalized Playlist Organization

- **Activity-Based Playlists:** I organize my music by creating playlists that are tailored to specific activities, such as "Workout Tunes" for exercising and "Study Sessions" for focused work. This approach ensures that my music enhances whatever activity I'm engaged in.
- **Mood-Based Playlists:** In addition to activities, I create playlists based on my moods, like "Chill Vibes" for relaxing. This allows me to easily access music that aligns with how I'm feeling at any given moment.
- **Genre and Artist Grouping:** Beyond playlists, I also group albums by genre or artist, which helps me quickly find the type of music I'm in the mood for.

2. Emotional and Memory-Based Attachment

- **Emotional Resonance:** A song becomes part of my core collection when it resonates with me emotionally, making it feel personally significant.
- **Memory Association:** Songs that are tied to specific memories or moments in my life also become integral to my collection, serving as a soundtrack to my personal experiences.
- **Differentiation of Music:** There is a clear distinction between music I simply enjoy and music that I feel is "mine"—the latter is defined by a deeper emotional connection.

3. Diverse Methods of Music Discovery

- **Platform Recommendations:** I discover new music through the recommendation algorithms of streaming services like Spotify and Apple Music. These platforms often introduce me to songs that fit my existing tastes.
- **Social Influences:** Friends and social media play a significant role in my music discovery. I often explore and add songs that are shared with me by others.
- **Personal Exploration:** Sometimes I actively search for new music or stumble upon it accidentally on platforms like YouTube. These moments of discovery add to the diversity of my collection.
- **Selective Addition:** Despite the variety of discovery methods, I only add songs to my collection if they align with my personal taste or evoke an emotional response.

4. Balancing Digital Convenience with Nostalgic Value

- **Streaming as the Primary Source:** Streaming platforms are my go-to for accessing and managing my music due to their convenience and vast libraries.
- **Legacy Formats:** Despite the prevalence of streaming, I maintain a collection of CDs and downloaded MP3 files, which hold sentimental value and represent a connection to my past.
- **Nostalgia vs. Convenience:** This balance reflects my appreciation for both the ease of access that streaming provides and the nostalgic value that physical formats hold.

5. Proactive and Dynamic Collection Management

- **Regular Reorganization:** I frequently revisit and reorganize my playlists to ensure they remain relevant to my current mood and life circumstances. This practice helps keep my collection fresh and reflective of my evolving tastes.
- **Updating Playlists:** By continually updating my playlists, I ensure that my music collection evolves with me, providing a dynamic and personalized listening experience.
- **Mood and Experience Reflection:** The way I manage my collection is deeply connected to my current emotional state and experiences, allowing my music library to be a true reflection of where I am in life.

6. Emotion-Driven and Personal Management Practices

- **Emotion-Centered Approach:** My music management is primarily driven by emotion rather than strict categorization. This allows my collection to be fluid and adaptable.
- **Personal Reflection:** My music collection serves as a mirror to my personal journey, evolving as I grow and change. This personalized approach ensures that my music remains meaningful and relevant to me.
- **Living Collection:** I view my music library as a living entity that grows and shifts with me, rather than as a static archive of songs. This perspective ensures that my collection always feels fresh and connected to who I am at any moment.

Step 2: Interview and Observation

Demographics

Pseudonym	Steven
Approximate age	24
Gender	Female
Occupation	Student
Nationality	Chinese

Only provide this information as long as the participant has given you explicit permission: explain it is fine to not provide these details.

Interview and Observation

If the participant has provided consent, then you can adapt the interview to be mixed in with an observation of a relevant activity (e.g., creating a playlist; finding a song to share with someone else; etc.)

(use a question and answer format – although you can adapt this to include observations; questions asked in Step 2 can be revised; summarize responses rather than giving a full transcript; include direct quotes for any particularly significant responses; use screenshots / photos / sketches as appropriate, with permission)

1. How do you usually organize your music collection?

- **A1:** Honestly, I'm pretty casual about it. I like to organize my music based on moods or activities. For example, I have a "Chill Time" playlist for when I want to relax in the evening, and a "Workout Boost" playlist for when I need some energy at the gym. Sometimes I'll organize by genre, like having a playlist just for rock, but most of the time, I just throw songs into whatever playlist feels right.

2. Which tools or platforms do you use to manage your music collection?

- **A2:** I mostly use Spotify because it's great for discovering new music, and it's easy to manage playlists. I also use Apple Music, mainly for buying albums or songs I really want to keep in high quality. And I occasionally use YouTube, especially for watching music videos or live performances.

3. How do you usually discover new music?

- **A3:** Most of the time, I rely on Spotify's "Discover Weekly" playlist. Every Monday, it drops new songs based on what I've been listening to, and I almost always find something I like. Friends also recommend songs, which is great because they sometimes know my taste even better than I do. Plus, I'll come across new tracks on social media—sometimes I'll see a post or a story with a song that catches my ear.

4. What are your criteria or habits for adding new music to your collection?

- **A4:** I'm pretty spontaneous about it. If a song resonates with me or has a catchy melody, I'll add it to my collection right away. Sometimes it's the lyrics that grab me, other times it's just the overall vibe of the song. I don't really have a strict set of rules—if I like it, it goes in.

5. How do you usually share music with others?

- **A5:** I usually share music through WhatsApp or WeChat, especially when I find a song that I think a friend will love. We often exchange recommendations like it's some sort of treasure hunt. Occasionally, I'll also share my Spotify playlists on Instagram, especially if I've curated something I'm really proud of.

6. What devices do you typically use to play music?

- **A6:** My phone is my go-to, especially when I'm out or at the gym. At home, I prefer using my laptop connected to speakers for better sound quality. Sometimes, when I'm winding down, I'll watch music videos on my tablet, usually on YouTube.

7. How important is sound quality to you? Would you choose specific platforms or devices for better audio quality?

- **A7:** Sound quality is pretty important to me, especially when I'm listening to high-quality recordings or favorite albums. I'll buy lossless versions of songs on Apple Music and play them through good headphones or speakers. But for everyday listening, Spotify's quality is good enough—its convenience often outweighs the need for perfect sound.

8. Do you manage your music across multiple platforms? If so, how do you handle syncing between them?

- **A8:** Yeah, I've got music on both Spotify and Apple Music. Syncing between them can be a bit of a hassle. I've used Soundiiz to sync playlists, but sometimes it doesn't match songs correctly, so I still have to tweak things manually.

9. What features would you like future music management tools to offer?

- **A9:** I'd love it if future music management tools were smarter—like, they could recommend music based on my mood or what I'm doing, and even automatically create playlists for me. Also, syncing across platforms should be simpler, so I don't have to manually adjust everything when I share a playlist with friends who use different services.

10. In what situations do you most often listen to music?

- **A10:** I'm pretty much always listening to music—while working, at the gym, driving, you name it. When I'm working, I like to have some mellow background music to help me focus. At the gym, I need something with a strong beat to keep me going. And when I'm at home, I usually go for something relaxing, like chill tunes or jazz.

11. Do you think your music management system is efficient? Do you see room for improvement?

- **A11:** Overall, it works fine, but there's definitely room for improvement. Cross-platform syncing is still a pain—it's time-consuming to keep everything consistent. I'd love a solution that automatically syncs everything across platforms without me having to lift a finger.

12. Are there any music management activities you find particularly complex or time-consuming? If so, which ones?

- **A12:** Yeah, syncing playlists across different platforms is definitely time-consuming, and organizing older songs that I haven't listened to in a while can be a bit of a chore. After I'm done, I always feel like I have to double-check everything to make sure nothing's missing, which is kind of a hassle.

13. Is there anything you want to do with your music that current systems don't support?

- **A13:** I really wish there was an easier way to manage music across platforms—like, if I create a playlist, it would automatically work on any platform my friends use, without me having to manually adjust it. Also, I think the recommendation systems could be smarter, maybe by considering my current mood or activity instead of just my listening history.

Summary of [Pseudonym]'s behaviour
(what have you learned about their methods and motivations with respect to music management -related information??)

`Overview`

The interview and observation provided valuable insights into Steven's strategies and motivations regarding music management. Steven primarily relies on digital platforms such as Spotify and Apple Music to curate his music collection. His approach is shaped by a strong preference for convenience, personalization, and maintaining high audio quality. The following analysis explores Steven's music management practices and the underlying motivations that guide his approach.

`Music Management Practices`

Playlist Organization:
Steven organizes his music through playlists, which he carefully curates based on specific moods, activities, or events. For example, he has a "Chill Time" playlist for evening relaxation and a "Workout Boost" playlist designed to energize his exercise sessions. This playlist-based method allows Steven to access music that aligns with his current needs efficiently, enhancing his overall listening experience.

Platform Utilization:
Steven primarily uses Spotify for everyday music listening, favoring its effective recommendation algorithms and user-friendly playlist management. He also utilizes Apple Music to purchase and store high-quality audio files, especially those he wishes to keep long-term. Additionally, Steven occasionally uses YouTube to watch music videos and live performances, indicating an appreciation for the visual aspects of music.

Discovery of New Music:
Steven frequently discovers new music through Spotify's "Discover Weekly" feature, which he finds highly reflective of his musical preferences. He also values recommendations from friends, which play a significant role in expanding his music library, supplemented by occasional discoveries through social media platforms.

Music Sharing Practices:
Sharing music is an integral part of Steven's interaction with his social network. He regularly shares tracks via messaging platforms such as WhatsApp and WeChat, particularly when he finds songs that resonate with his friends. Furthermore, Steven enjoys showcasing his curated playlists on Instagram, especially when he feels his selections are particularly well-crafted.

Cross-Platform Management:
Managing music across both Spotify and Apple Music presents challenges, particularly in synchronizing playlists between platforms. To address this, Steven uses tools like Soundiiz, though the process often requires manual adjustments, indicating a need for more seamless cross-platform integration.

Device Usage and Audio Quality Preferences:
Sound quality is a priority for Steven, especially when listening to high-fidelity recordings. He prefers Apple Music for these sessions, paired with high-quality headphones or speakers to ensure an optimal audio experience. For everyday listening, he finds Spotify's sound quality sufficient. Steven primarily uses his smartphone for music playback but also frequently listens through a laptop connected to speakers when at home.

Motivations Behind His Practices

Convenience:
Steven's preference for Spotify is largely motivated by the platform's convenience, particularly in discovering and organizing music. The ease of use, combined with Spotify's intuitive interface and sophisticated recommendation features, aligns with his desire for an efficient and enjoyable music experience.

Personalization:
Steven's meticulous organization of playlists reflects his strong preference for a personalized listening experience. He carefully curates his music to align with specific moods and activities, ensuring that his collection is consistently tailored to his emotional or situational context.

Commitment to Quality:
Steven's use of Apple Music for purchasing high-quality audio files demonstrates his commitment to maintaining a music library that meets his standards for sound quality. This behavior underscores his preference for owning and preserving music that he values highly, both in terms of audio fidelity and long-term accessibility.

Social Engagement:
Music sharing is a significant form of social engagement for Steven. It allows him to share enjoyable tracks and strengthens connections within his social network, enhancing the overall music experience through shared discovery and discussion.

Efficiency:
While Steven appreciates the flexibility offered by multiple platforms, the complexities associated with managing and synchronizing playlists across these platforms highlight his need for greater efficiency. He seeks tools and systems that simplify these processes, reducing the time and effort required to maintain a cohesive and well-organized music collection.

Conclusion

Steven's approach to music management is characterized by a deliberate balance of convenience, personalization, and a focus on quality. His methods reveal a strong desire to curate a music collection that is both highly organized and easily accessible, tailored to a variety of moods and activities. However, the challenges he faces with cross-platform management underscore a critical need for more integrated and efficient solutions in future music management tools.

Summary differences and similarities in behavior between Step 1 and Step 2

(what are the differences from and similarities to your own behaviours?)

Similarities Between Step 1 and Step 2:

Playlist Organization:

Mood and Activity-Based Playlists: Both Steven and I prioritize organizing music through playlists that cater to specific moods or activities. We each have playlists tailored for relaxation, exercise, and other specific contexts, indicating a shared preference for using music to enhance different aspects of our daily lives.

Use of Digital Platforms:

Spotify as a Primary Tool: Both of us rely heavily on Spotify for discovering and managing our music collections due to its convenience, effective recommendations, and user-friendly interface. This shows a common appreciation for the platform's ability to streamline music discovery and playlist management.

Music Discovery:

Social Influence and Recommendations: We both value recommendations from friends and social media as key methods for discovering new music. This highlights a shared reliance on social circles and digital platforms to expand our music libraries.

Sharing Music:

Social Sharing Practices: Both Steven and I enjoy sharing music with friends through messaging apps and social media. This similarity underscores our mutual appreciation for music as a social experience and a way to connect with others.

Device Usage:

Smartphone as a Primary Device: Both of us primarily use our smartphones for music playback, whether on the go or at home, showing a common preference for the convenience and portability of mobile devices.

Differences Between Step 1 and Step 2:

Approach to Music Organization:

Steven's Casual Approach vs. My Structured Organization: While Steven tends to organize his music casually, often adding songs spontaneously to whatever playlist feels right, I am more deliberate in my organization, often categorizing music by genre or artist in addition to mood and activity. This difference reflects a variance in how much structure we each prefer in managing our collections.

Sound Quality Prioritization:

Steven's Emphasis on High-Fidelity Audio: Steven places a higher priority on sound quality, going as far as to purchase lossless versions of songs on Apple Music for optimal listening. In contrast, I am generally content with the standard quality offered by streaming platforms, only occasionally prioritizing high-quality audio for specific tracks or albums.

Cross-Platform Management:

Steven's Use of Multiple Platforms: Steven actively manages his music across both Spotify and Apple Music, dealing with the complexities of syncing between them. In contrast, I primarily use a single platform (Spotify) for most of my music needs, avoiding the challenges of cross-platform management.

Music Management Tools:

Steven's Use of Third-Party Tools: Steven uses tools like Soundiiz to sync playlists across platforms, even though it requires manual adjustments. I, on the other hand, do not engage with such tools, as my music management is more centralized and doesn't require syncing across different platforms.

Engagement with Legacy Formats:

Steven's Maintenance of Legacy Formats: Steven maintains a collection of CDs and high-quality MP3 files, reflecting a strong attachment to legacy formats for certain songs or albums. In contrast, I have mostly moved away from physical formats, relying almost entirely on digital streaming platforms for my music collection.

Conclusion

While Steven and I share several similarities in our approach to music management—particularly in our use of playlists, digital platforms, and social sharing—there are distinct differences in how we organize our collections, prioritize sound quality, and manage music across multiple platforms. These

differences highlight varying levels of structure, technological engagement, and attachment to audio quality and legacy formats in our respective approaches to managing our music collections.

Step 4: Summary of user needs
Summary of User Needs for a Music Management Application

Based on the findings from Steps 1 through 3, this report summarizes the core user needs for a new music management application. The goal of this application is to help users more efficiently manage their music collections. The following features and interaction designs are derived from personal interviews, observations of Steven, and daily usage records.

1. Personalized Playlist Creation and Management

- **Background and Rationale**: Both Steven and I prefer to organize our music through playlists, typically categorized by specific moods, activities, or music genres. The application should provide easy-to-use tools that enable users to create and manage playlists tailored to their needs.
- **Functional Requirements**:
    o Intuitive playlist creation and editing tools.
    o Options to categorize playlists by mood, activity, or music genre.
    o Support for adding multiple tags to songs for flexible playlist generation.
- **Interaction Design**:

    o Users can create playlists by dragging and dropping songs, or have playlists automatically generated based on historical listening habits and selected tags.

2. Cross-Platform Synchronization

- **Background and Rationale**: Steven encountered synchronization difficulties when managing music across multiple platforms (e.g., Spotify and Apple Music), highlighting the need for seamless cross-platform synchronization to reduce manual effort.
- **Functional Requirements**:

    o Integration with major music streaming platforms (e.g., Spotify, Apple Music, YouTube).
    o Automatic synchronization of playlists, music libraries, and user preferences.

- **Interaction Design**:

    o Users can link accounts from different platforms and manage their entire music collection through a single interface, with synchronization handled automatically in the background.

3. High-Quality Audio Management

- **Background and Rationale**: Steven's need for high-quality audio files indicates that the application should cater to users who prioritize sound quality, offering an optimal audio management experience.
- **Functional Requirements**:

    o Support for storing and playing high-resolution audio files.
    o Options to download or purchase lossless versions of songs.

- **Interaction Design**:

    o Users can switch between standard and high-resolution audio settings based on their device and context, ensuring a personalized and optimized listening experience.

4. Smart Music Discovery and Recommendations

- **Background and Rationale**: In Steps 1 and 2, both Steven and I relied on platform-provided recommendations (e.g., Spotify's "Discover Weekly") to find new music. The application should offer personalized music recommendations based on user behavior, mood, and activity.
- **Functional Requirements**:

    o AI-driven recommendation system that provides personalized music suggestions based on listening history, mood, and activity.
    o Integration of social recommendations, allowing users to discover music shared by friends.

- **Interaction Design**:

    o Users can receive personalized recommendations in a "Discover" section and quickly add newly discovered music to their playlists or library.

5. Enhanced Social Sharing Features

- **Background and Rationale**: Sharing music is an important aspect of music management for both Steven and me. The application should simplify the process of sharing music across multiple platforms, enhancing the social experience.
- **Functional Requirements**:

    o One-click sharing options for songs and playlists across social media and messaging apps.
    o Collaborative playlist features, allowing multiple users to contribute and edit songs in real time.

- **Interaction Design**:

    o Users can share music directly from the app and customize how shared content is presented, such as naming and describing playlists.

6. Efficient Music Organization and Search Tools

- **Background and Rationale**: The contrast between my systematic approach to organizing music and Steven's more spontaneous method suggests that the application should provide flexible and powerful organizational tools to meet diverse user needs.
- **Functional Requirements**:

  - Advanced search options that allow users to filter by genre, mood, artist, or activity.
  - Tagging system to help users efficiently organize and retrieve music.

- **Interaction Design**:

  - Users can quickly search and organize their music collections using a simple search bar or advanced filtering options.

7. Offline Access and Local File Integration

- **Background and Rationale**: Steven's use of locally stored music files indicates that the application should support offline access and integration of local music files, catering to traditional music formats.
- **Functional Requirements**:

  - Support for importing and managing local music files within the app.
  - Offline mode that allows users to access downloaded music and playlists without an internet connection.

- **Interaction Design**:

  - Users can easily import local files and include them in playlists, with offline access managed through a dedicated section of the app.

Conclusion

In summary, the music management application should feature a diverse and user-friendly design to meet the core needs identified in Steps 1 through 3. By providing support for personalized playlist creation, cross-platform synchronization, high-quality audio management, smart recommendations, enhanced social sharing, efficient organization, and offline access, the application will offer users a powerful and convenient solution for managing their music collections, thereby enhancing their interaction with their music.

Step 5: Critiques of an existing system supporting music management

Analysis of Spotify

In this analysis, I have chosen Spotify as the subject of study. Spotify is a widely popular music streaming service that supports users in discovering, playing, and managing their music collections. Spotify is highly regarded for its vast music library, personalized playlists, and powerful music discovery features. This evaluation will assess how well Spotify meets the user needs identified in Step 4, including playlist creation, cross-platform synchronization, high-quality audio management, intelligent music recommendations, social sharing, efficient organization, and offline access. Additionally, I will highlight key usability issues related to Spotify's interface, functionality, overall design, and user experience.

Personalized Playlist Creation and Management

- **User Need Support**: Spotify performs excellently in allowing users to freely create and manage personalized playlists. Specifically, users can easily add songs to playlists through drag-and-drop or by using the "Add to Playlist" feature. Spotify also offers a "Create Playlist" option, enabling users to customize playlists based on mood, activity, or music genre. Furthermore, Spotify automatically generates playlists based on users' listening history, fulfilling the need for flexible playlist creation.
- **Usability**: The process of creating and managing playlists is simple and user-friendly. However, Spotify currently does not support multi-tag functionality, which limits the flexibility of playlist creation, as songs cannot appear in multiple playlists based on different criteria.

Software Interaction

- **Positive Aspects**: Spotify's interaction design is generally intuitive, with a predominantly dark theme. On a black background, visual elements such as album artwork, playback controls, and lyric displays stand out more vibrantly. The black interface provides a high-contrast background for these contents, making the visual effects clearer and more appealing, thereby enhancing the overall user experience. Users can easily browse their music library, create playlists, and use the search function. The navigation bar is straightforward, allowing users quick access to their music library, playlists, search interface, and personal settings. Additionally, Spotify's playback controls are logically arranged, enabling users to pause, play, skip, and adjust volume with ease.
- **Usability Issues**: When handling a large number of playlists or an extensive music library, Spotify's navigation and interface interactions can become complex, especially when users are trying to quickly find or organize music. Users might feel overwhelmed by the operation load. Although Spotify provides basic filtering and sorting functions, it lacks advanced interaction options, such as batch operations or more refined

music management tools, which could pose challenges for users managing large amounts of content and increase the learning curve.

Cross-Platform Synchronization

1. Support: Spotify offers excellent cross-platform synchronization, enabling   users to effortlessly access their music library and playlists on a wide range of devices, including smartphones, tablets, computers, and smart speakers. This seamless integration ensures that users can switch between devices without any interruptions to their listening experience.Users only need to log in with one account to quickly retrieve their related music. Spotify's synchronization is automatic, ensuring that users' music collections remain consistent across all devices, fully meeting the user needs identified in Step 4 for cross-platform synchronization.
2. Usability Issues: Although Spotify's in-platform synchronization is stable, its integration with other music platforms (such as Apple Music) is limited, which is a significant drawback for users who manage music across multiple services. Additionally, when using different platforms, inconsistencies in UI layout across devices may occur, leading to a disjointed user experience when switching between devices.

Icon Design

- **Positive Aspects**: Spotify's icon design is unified, simple, and easy to recognize. Icons for play, pause, skip, and volume control are positioned logically and are relatively intuitive to use. These icons are clearly designed, allowing users to quickly recognize them, which aligns with most users' visual habits and helps users quickly understand and use the functions.
- **Usability Issues**: Despite the overall positive design, Spotify's icons sometimes lack sufficient customization options. For instance, the design of playlist and social sharing icons is somewhat uniform, and users cannot modify or customize these icons according to personal preferences. Additionally, during collaborative playlist management and social sharing, the function prompts for icons and buttons may not be sufficiently clear, potentially causing confusion for new users or those unfamiliar with the feature. Moreover, users cannot quickly jump to a specific part of a track using the progress bar, which is not intuitive for users who want to quickly navigate to a particular section of a song.

Visual Rigidity vs. Approachability

- **Visual Rigidity**: The use of straight lines and sharp angles in Spotify's square design can give the interface a more rigid and formal appearance. This rigidity might make the UI feel cold, overly rational, or even stiff. In contrast, rounded icons and softer edges typically convey a sense of warmth and friendliness, enhancing user comfort during interaction.

- **Lack of Approachability**: Rounded designs are often perceived as more natural and inviting, helping to establish a stronger emotional connection with users. Rounded icons can reduce visual harshness, making the interface feel more human and approachable. In some cases, Spotify's square design might be perceived as too formal or lacking in warmth, which could diminish the emotional engagement users feel with the platform.

Enhanced Social Sharing Features

- **User Need Support**: Spotify integrates well with social media platforms, allowing users to share songs, playlists, and listening activity through apps such as Instagram, Facebook, Snapchat, and WhatsApp. Leveraging YouTube's vast user base and various sharing methods, along with engaging interactions, helps increase user stickiness (the tendency for users to stay and actively participate). This is crucial for a product's success, especially in a competitive market. Additionally, Spotify offers collaborative playlist functionality, allowing multiple users to add and edit songs in real-time, supporting social interaction and shared music experiences.
- **Usability**: Spotify's music sharing features are generally user-friendly, and users can customize the content and presentation of their shares. However, managing the collaborative playlist interface can sometimes be confusing, especially when multiple users are editing simultaneously, which may lead to conflicts or chaos. Additionally, sharing content on less popular apps might not be as smooth.

Conclusion

Spotify is a powerful and versatile music streaming service that performs excellently in many aspects of music management, such as personalized playlist creation, cross-platform synchronization, intelligent music discovery, and social sharing. However, it has shortcomings in areas such as multi-tag support, integration with other platforms, lossless audio support, and advanced search functionality. Addressing these usability issues could further enhance Spotify's effectiveness as a comprehensive music management tool, providing users with a more seamless and enjoyable music management experience.