

COMPX324 Phase III

Group members:

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URL for prototype:

<https://www.figma.com/design/zFh2vJR6BHv8cl6sSgi4pL/Vibrary?node-id=0-1&t=Gyygq7KRQkgHSQ4R-1>

Step 1: Merge the individual Phase II projects into an agreed Phase III group project

a) A SWOT table for the Phase II project of each group member

Katherine	
Strengths	<ul style="list-style-type: none">• An ability to share across multiple social media platforms• Connects multiple music platforms together so everything is in one place• Recommends songs and can access songs across all types of platforms such as spotify, youtube music, soundcloud• Simple layout• Efficient categorisation features, allowing users to create custom tags and playlists.
Weaknesses	<ul style="list-style-type: none">• Labels can be easier to understand• Some of the buttons and things aren't implemented/goes nowhere• Can't download songs
Opportunities	<ul style="list-style-type: none">• Expanding to support more file types, such as podcasts or audiobooks, could broaden the user base.• Could expand to integrate AI tools to the system• Could include a download or offline mode for users to listen to music without internet or cellular data.
Threats	<ul style="list-style-type: none">• Competitors like Apple Music and Spotify offer built-in organisation tools, limiting the app's appeal.

Ethan	
Strengths	<ul style="list-style-type: none">• You can send messages to friends on the app.• Easy to navigate due to clear icons and navigation bar.• Option to sync libraries from other music management systems so users can organise their entire music

	collection on a single app.
Weaknesses	<ul style="list-style-type: none"> • Can only share songs and playlists within the app, no option for other social media such as facebook or instagram.
Opportunities	<ul style="list-style-type: none"> • To implement sharing between other social media. • Add more layout customisation features to improve user experience. • Add a larger variety of filtering options.
Threats	<ul style="list-style-type: none"> • Other music platforms that have a bigger audience already. • More niche apps that cater to specific user goals better.

Jason	
Strengths	<ul style="list-style-type: none"> • Variety of listening modes, such as "DJ mode ", "driving", "fitness" and others which can meet the music needs of different users in different scenarios
Weaknesses	<ul style="list-style-type: none"> • The Listening mode and Settings interface provides a large number of options and modes which can be a bit too complex for users
Opportunities	<ul style="list-style-type: none"> • Social music platform integration
Threats	<ul style="list-style-type: none"> • If VIP features are restricted too much, it may lead to the loss of non-member users, especially if competitors offer more free or premium services. • Copyright issues: Music copyright is always a challenge for music platforms, and without sufficient resources invested in acquiring copyright, there may be a risk of lack of content or copyright disputes.

Feihong	
Strengths	<ul style="list-style-type: none"> • Can filter between languages • Can sort music based on alphabet, date • Lots of customisation features • Can view downloaded songs • Nice UI design
Weaknesses	<ul style="list-style-type: none"> • Some screens can be simplified • Need more explanation for each button

	<ul style="list-style-type: none"> • Need more complete features
Opportunities	<ul style="list-style-type: none"> • Integration with social media platforms for music sharing • Expansion to support more diverse music genres and languages • Opportunity for AI-powered music recommendations
Threats	<ul style="list-style-type: none"> • Competitors with more established music platforms • Potential negative feedback if the system fails to meet user expectations • Dependency on third-party APIs

Jacky	
Strengths	<ul style="list-style-type: none"> • Simple layout, clean • Good customisation features • When using iron for the first time, users can find the files they need entirely based on Iron. • There is a menu interface, the user has more aspects of use.
Weaknesses	<ul style="list-style-type: none"> • Simplify labels • Icons can be more relevant • The recommended music interface can be changed to play directly by clicking without jumping to the page. • Favourites and Collect can be combined without having to make too many pages.
Opportunities	<ul style="list-style-type: none"> • Combine favourites • Have a settings • Add offline downloads of songs so users can use the software even when they don't have Internet access. • Add other users' comments on songs to increase the interaction between platform users.
Threats	<ul style="list-style-type: none"> • Other competitors like spotify and apple • In contrast to other software, we don't target all age groups • Most of the software has the function of mv to give users a better experience

Evie	
Strengths	<ul style="list-style-type: none"> • Simplified interface with large fonts, making it accessible

	<p>for elderly users with declining vision.</p> <ul style="list-style-type: none"> • Voice command feature aids users with limited dexterity, like those with arthritis. • Offers offline access, making it usable without consistent internet connectivity. • Personalisation features, like music reminders, help maintain user engagement.
Weaknesses	<ul style="list-style-type: none"> • Potential confusion about menu options, such as “Library,” “Recommended,” and “Quick Play.” • Unclear confirmation messages after actions, which can leave users unsure about next steps. • Playlist creation process might need to be more automated, as some users expected automatic song addition. • Limited feature set might not appeal to more tech-savvy users looking for advanced options.
Opportunities	<ul style="list-style-type: none"> • Growing demand for technology that caters to the aging population. • Potential for partnerships with retirement homes or organisations focused on elder care. • Ability to expand the product to include more assistive features like hearing aid compatibility. • Customisable features could attract a niche market within the elderly community.
Threats	<ul style="list-style-type: none"> • Competition from mainstream apps like Spotify or Apple Music that may offer similar but more complex features. • User reluctance to adopt new technology, even if designed to be user-friendly. • Technological changes could leave the system outdated if not updated regularly.

Linmiao Li	
Strengths	<ul style="list-style-type: none"> • Shares with social media
Weaknesses	<ul style="list-style-type: none"> • Too much buttons, not a clean design
Opportunities	<ul style="list-style-type: none"> • To combine music collections
Threats	<ul style="list-style-type: none"> • Look like wangyiyun (a chinese music platform)

**b) A description of the agreed Phase III project and its target users:
showing which parts are derived from which Phase II projects**

The agreed project is a music management system that combines key strengths and opportunities from all SWOT analyses. The system is designed to be user friendly, allows music sharing across various platforms, and is highly customizable. Our target audience is towards a younger demographic between 16-30 year olds.

Our agreed phase 3 project is called 'Vibrary'. Vibrary is a music management system that helps users access their music, organise their music and share their music. Our target audience is 16-30 year olds as this age demographic is highly engaged with music platforms and values music management tools. They are more tech-savvy, more active on social media and prefer personalised tools for managing and sharing their music. This system provides solutions for casual listeners who prefer simplicity, as well as advanced users who want more control over organising their music collections.

The key features that we are combining from our phase 2 projects align with the needs of our target audience.

These features include:

- Linking between multiple music platforms (derived from Katherine and Ethan's projects): Vibrary integrates with popular music platforms like Spotify, YouTube Music, and SoundCloud (users can choose which to connect to), allowing users to manage all their music in one place. This eliminates the need to switch between different apps to access music.
- Recommends songs and can access songs across all types of platforms such as Spotify, YouTube Music, and SoundCloud (derived from Katherine and Ethan's projects): the system provides personalised music recommendations across the integrated platforms.
- Sharing across multiple social media (derived from Katherine, Ethan, Linmiao, Jacky, Feihong and Jason's projects): Our target audience values the ability to socialise through music. Sharing music through social media apps is an important part of this.
- Simple interface (derived from all projects): A minimalist design makes it easy to navigate through various functions
- Filtering between languages (derived from Feihong's project): Our system would improve by offering the system in different languages. By not limiting our system to just one language, we will reach a wider audience.
- Offline access/ can download songs (derived from Evie's project): Users can download music for offline listening, ensuring they can access their favourite songs even when they are without an internet connection

- Advanced sorting options (derived from Feihong and Katherine's projects):
The system has advanced sorting options that allow users to sort their music alphabetically, by date added, artist, genre or other custom categories.

c) A new scenario and associated primary persona that represents the core functionality of the merged project

Scenario:

Max Smith is a 24 year university student and listens to music frequently and juggles his music collection across multiple platforms like Spotify and YouTube Music. Between commuting to university, working part-time, and hanging out with friends, music plays a big role in his daily routine. He loves discovering new songs and sharing his favourites on social media but finds it frustrating to switch between platforms to manage playlists.

After downloading Vibrary, it automatically suggests new songs based on his listening habits across both platforms, and Max easily adds them to custom playlists that he sorts by genre, alphabet, and artist.

He loves sharing music with friends and shares his latest playlist directly to Instagram using Vibrary's sharing feature. Since he studies in different languages, he switches Vibrary to Spanish to practise even more. On his train rides, he goes to his offline music and listens to it because there's no signal in the train.

Primary persona:

Name: Max Smith

Age: 24 years old

Occupation: Student, part-time restaurant assistant

Quote: "I love discovering new music and sharing it with my friends, but juggling between Spotify and YouTube Music is a hassle".

Description: Max Smith is a 24 year old university student who balances his busy academic life with a part-time restaurant assistant job. Living in the city, Max is always on the go and relies heavily on music to get through his day. He enjoys discovering new tracks, creating playlists, and sharing his music with friends on social media. He is tech-savvy and active across multiple platforms. He primarily uses Spotify and YouTube Music but finds it frustrating to manage his music across different apps.



d) Selection and justification of our chosen prototyping environment

We selected Figma as our prototyping environment for 'Vibrary' due to its easy to use design tools and the ability for all group members to collaborate and work on the project at the same time. This is an important aspect as to why we have chosen to use Figma because its real time collaboration means we are able to quickly iterate and improve on designs and gather feedback and implement it a lot quicker than if only one person were to work on it at a time. Figma also provides robust features for creating interactive prototypes, allowing us to simulate user flows and test the functionality of our music management system which means we can make sure that the final product will offer a good user experience.

Another reason why we chose Figma is for its interactive prototyping capabilities which will enable us to create dynamic, clickable prototypes that simulate the full user journey through the system, 'Vibrary'. This means we can test various user flows, interactions, and navigation early in the design phase, ensuring the system is intuitive and meets the needs of our target audience. This is important because it helps us catch potential design issues easier and improve on them.

Additionally, Figma's versatility and cloud-based nature ensure that all team members, regardless of their physical location or device, can access the project and contribute seamlessly. This is especially beneficial for distributed teams or situations where team members may need to work remotely. With Figma, our design assets and progress are constantly synced, reducing the risk of miscommunication or version control issues, which are common challenges in collaborative projects.

Step 2: Construct a Computer-based Horizontal Prototype

a) A brief summary of the target user group for the system you are designing and the music collection behaviours that your design supports

Our target user group for Vibrary consists of individuals aged 16-30 who frequently use music platforms and are seeking features that simplify music management and sharing. These users often juggle multiple platforms like Spotify, YouTube Music, and SoundCloud, seeking a more efficient way to manage their collections in one place. They are also active on social media and appreciate tools that allow for easy sharing of their musical discoveries with friends.

Vibrary is designed to support a range of music collection behaviours. It offers cross-platform management, allowing users to access and organise their music from different sources without switching between apps. The system also provides personalised music recommendations, helping users discover new songs based on their listening habits across platforms.

For users who value organisation, Vibrary includes advanced sorting options, enabling them to customise their libraries by genre, artist, and other categories. Additionally, the system supports offline listening, which is essential for users on the go, allowing them to download music for playback without an internet connection. Finally, Vibrary's social sharing feature lets users easily share their favourite playlists and songs across popular social media platforms, further enhancing their musical experiences.

b) Explain how your interface *appearance* and *functionality* are designed so as to be appropriate for these target users

The interface appearance and functionality are designed to be appropriate for our target users who are 16-30 year olds.

Appearance

Minimalist and Clean Layout

The app features a clean and simple design, which allows users to quickly navigate between playlists, discovery features, and settings without being overwhelmed. This minimalist design caters to younger users who prefer straightforward interfaces that prioritise ease of use. By keeping visual elements clear and uncluttered, Vibrary ensures a smooth user experience.

Customisable Appearance

Vibrary includes customisation options like dark mode and notification settings, enabling users to tailor their experience according to their preferences. This feature

is especially appealing to users aged 16-30, who often expect apps to offer personalisation options that enhance their interaction with the interface.

Clear Visual Hierarchy

The interface is designed with a clear visual hierarchy, where key elements such as “Playlists,” “Discover,” and “Downloads” are prominently placed for quick access. Younger, tech-savvy users, who value efficiency, can easily locate and utilise the most important functions. The large fonts and accessible icons further ensure that the interface remains easy to navigate for a wide range of users, including those with visual impairments.

Functionality

Cross-Platform Integration

Vibrary seamlessly integrates popular music platforms like Spotify, YouTube Music, and SoundCloud, allowing users to manage all their music in one app. This cross-platform functionality is a key feature for tech-savvy users who frequently juggle multiple streaming services. By consolidating all their music into one place, Vibrary simplifies the music management process for its target audience.

Cross-Platform Playlist Creation and Management

Vibrary supports the creation of playlists that include songs from different platforms. This functionality is particularly appealing to users who enjoy creating custom playlists, as it enables them to mix tracks from various services, such as Spotify and SoundCloud, into a single playlist. The ability to manage playlists across platforms offers flexibility that users in this age group seek in a music management tool.

Offline Download and Management

Users can download music for offline access, ensuring that they can listen to their favourite tracks even when they are without an internet connection. This feature is particularly valuable for users who commute, travel, or spend time in areas with poor connectivity. Additionally, Vibrary’s download management system allows users to track the progress of their downloads, giving them greater control over their offline music library.

Step 3: Test the Prototype with People

Introduction

The purpose of this user testing session was to evaluate the usability, user experience, and functionality of the Vibrary prototype system. By observing participants as they completed key tasks, we aimed to analyse their interactions, identify any difficulties they encountered, and gather their feedback on the interface design. The data collected from this test provides valuable insights into the strengths and areas for improvement within the system, guiding the next iteration of development.

Test Plan

Participant Demographics

- Participant A: 28-year-old female, university student, frequent user of music streaming applications.
- Participant B: 33-year-old male, engineer, occasional user of music streaming services.

Test Location

The test was conducted in a quiet, distraction-free meeting room. Participants used their personal laptops to complete the tasks, allowing them to interact with the system in an environment similar to their typical use.

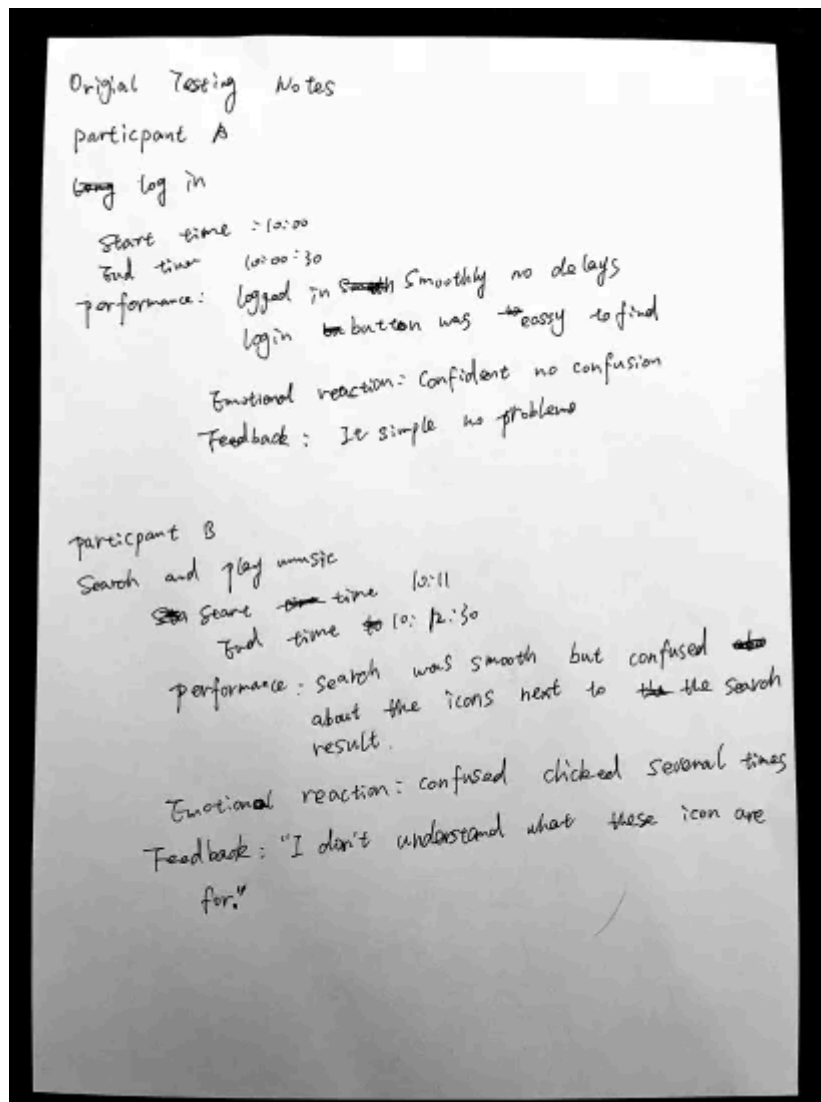
Participants were asked to complete the following tasks:

1. Log in: Enter their credentials to log in to the Vibrary system.
2. Search and Play Music: Use the search function to find and play a specific song.
3. Create and Manage a Playlist: Create a new playlist, add several songs, and then edit or delete content within the playlist.

Each participant's test lasted approximately 20 minutes, with about 15 minutes for task execution and 5 minutes for feedback collection and discussion.

Analysis

- Task Completion: Both participants successfully completed all assigned tasks, demonstrating that the core functions (log in, search, play, and playlist management) were fully operational.
- Time Performance: Participant B spent more time on the "Create and Manage Playlist" task, suggesting potential complexities in the playlist management feature that might require further simplification or guidance.



Qualitative Results

Participant A's Feedback

- Task Completion Observations:
 - Log in: Participant A encountered no difficulties and completed the task in 30 seconds.
 - Search and Play Music: The task was completed in 1 minute and 20 seconds, but she noted that the "close search" button was not easily visible, which caused confusion when trying to exit the search function.
 - Create and Manage Playlist: This task took 3 minutes and 30 seconds. Participant A found the playlist management feature confusing, particularly regarding how to save or edit changes made to the playlist.
- User Comments:
 - Positive Feedback: "The interface is overall simple, and the log-in and search functions are easy to use."

- Negative Feedback: "The close button for the search field is not prominent, and the playlist management feature is not intuitive when trying to save edits."

Participant B's Feedback

- Task Completion Observations:
 - Log in: Completed in 25 seconds. Participant B mentioned that the log-in button was not very prominent.
 - Search and Play Music: The task was completed in 1 minute and 10 seconds. He expressed confusion about the icons next to search results (platform selection).
 - Create and Manage Playlist: This task took 4 minutes and 45 seconds. He commented that the system did not provide sufficient feedback after saving changes to the playlist, which left him unsure if the action had been completed successfully.
- User Comments:
 - Positive Feedback: "The overall system operation is smooth, and the search function works well."
 - Negative Feedback: "The log-in button is not noticeable enough. The platform icons were unclear, and there was no confirmation when saving a playlist."

Key Issues - Positive and Negative

Positive Aspects of the Design

Clean Interface Design:

- Issue: Both participants appreciated the simplicity of the interface, stating that key functions were easy to find and use. This was particularly evident with the log-in and search features, which were executed smoothly.
- User Comment: Participant A: "The interface is clean and intuitive, and I didn't face any major issues while using the log-in or search functions."
- Strength: The straightforward design reduces cognitive load and allows users to quickly access core features without confusion.

Smooth Search Functionality:

- Issue: Both participants found the search functionality to be responsive and efficient.

- User Comment: Participant B: "The search feature was very fast and easy to use."
- Strength: A responsive search feature enhances the user experience by allowing users to quickly find and play the content they want.

Negative Aspects of the Design

Search Field Close Button is Not Visible:

- Issue: Participant A struggled to locate the close button after searching for a song, leading to confusion when trying to exit the search interface.
- User Comment: Participant A: "The close button in the search bar is not obvious, which made exiting the search a bit tricky."
- Impact: A non-visible close button hinders the user's ability to smoothly navigate away from the search function.
- Improvement Suggestion: The close button should be made more prominent, or an "X" icon should be added to the search bar for easier exit.

Distinction Between Downloads and Playlists is Unclear:

- Issue: Both participants expressed confusion over the similarity between the "Downloads" and "Playlists" sections of the interface, making it difficult to differentiate between the two.
- User Comment: Participant A: "The Downloads and Playlists sections look very similar, and it's hard to tell them apart."
- Impact: This can lead to misinterpretation of features, making navigation less intuitive.
- Improvement Suggestion: Use distinct colours, labels, or icons to better differentiate between Downloads and Playlists.

Lack of a User Center:

- Issue: Participant A noted that the system lacks a user centre or profile management area, which prevents users from managing their accounts or personal content.
- User Comment: Participant A: "There's no user centre, so I can't manage my account or see my playback history."
- Impact: This limits personalization and account control, which could diminish the overall user experience.
- Improvement Suggestion: Add a "User Center" where users can manage their personal information, view history, and adjust settings.

Color Scheme Not Suited for a Music App:

- Issue: Participant A mentioned that the colour scheme of the interface feels more suited to a reading or book app rather than a music application.
- User Comment: Participant A: "The colours feel more like a book app than a music app."
- Impact: A misaligned colour scheme can negatively affect users' initial perceptions of the app and may not reflect its purpose effectively.
- Improvement Suggestion: Revise the colour scheme to incorporate more vibrant, music-oriented colours that align with the app's theme.

Insufficient Action Feedback:

- Issue: Participant B expressed concern about the lack of confirmation feedback when saving playlists or making changes. He was unsure if the action had been completed.
- User Comment: Participant B: "There was no feedback when saving the playlist, so I wasn't sure if it worked."
- Impact: Lack of action feedback can cause users to repeat actions or become unsure about their interactions.
- Improvement Suggestion: Implement confirmation messages or visual cues, such as a checkmark or a success message, to confirm actions like saving or deleting.

Conclusion

The user testing session highlighted several strengths of the Vibrary prototype, particularly its clean interface and responsive search functionality. However, the test also revealed some key areas for improvement, including the need for clearer visual cues, enhanced differentiation between certain features (such as downloads and playlists), and better action feedback mechanisms. These insights provide valuable guidance for the next stage of development, ensuring that user experience is prioritised and refined in future iterations.

Step 4: Refine Prototype

Issue: The platform connection process is complicated

Justification: In platform-connected interfaces (e.g. YouTube, SoundCloud, Spotify), users may find the process more fragmented and cumbersome. Consider consolidating all platform connectivity steps into one interface, or adopting a step-by-step process with progress bars that let users know where they are at and make it more intuitive.

Issue: Lack of Visual Cues for Interactivity

Justification: Some interactive elements, such as icons for connecting to YouTube or adding songs to playlists, could benefit from hover states or animations to signify that they are clickable. This will enhance the overall user experience by making the interface more intuitive.

Issue: User habits are not fully considered

Justification: Different user groups have different usage habits, especially on music platforms, users may have specific operation paths. For example, some users may like to quickly browse and create playlists, while others prefer personalization and precise search. In order to meet the needs of different types of users, you can consider adding some customization options, such as allowing users to adjust the layout or display mode of the interface, and providing shortcut operation options. This can enhance the user's personalised experience and make the interface more flexible.

Issue: Not enough personalised recommendations

Justification: In the music discovery section, users can currently only search or browse by categories such as artist, genre or album, but there is a lack of personalised recommendations based on user habits and preferences. With the increase of users' use time, the system can provide more personalised recommendation content according to their playing habits and preferences. For example, algorithms analyse a user's play history to suggest songs or playlists they might like. Personalised recommendations can not only increase user satisfaction, but also increase user stickiness, making them more willing to use the app for a long time

Issue: Insufficient boot process for new users

Justification: Some of the operations and functions in the UI may not be intuitive for first-time users. While some of the process has been streamlined, there is no clear onboarding experience. Adding some beginner steps or tips, especially when using for the first time, can help users get started faster. For example, a short tutorial can pop up when the user first enters, or some dynamic prompt (such as highlighting important buttons) can guide the user through key actions. This can not only reduce the learning cost of the user's first use, but also enhance the overall experience of the user.