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OPSC7311- POE ReadMe (Final Part)

STUDENT NAME: SHIVANI NAIDU
STUDENT NUMBER: ST10084788
BCA3, GROUP 2

VARSITY COLLEGE | Westville

Project Title

Bangmul – Watched It!

Introduction/ Motivation

Bangmul is an entertainment app inspired by the global phenomenon of Korean dramas, also known as K-Dramas. This project is developed as part of the OPSC7311 module, where I embarked on a journey to explore the exciting world of app development. Bangmul goes beyond academic borders by bridging the gap between theoretical knowledge and real-world application. This project for the OPSC7311 module has provided me with an opportunity to apply the concepts and skills learned in the classroom to a practical and meaningful endeavour.

Through the development of Bangmul, I have delved into the realm of app development, gaining hands-on experience in designing, coding, and implementing a functional and user-friendly application. This practical experience has allowed me to explore the intricacies of software development, understand the challenges involved, and apply problem-solving techniques to overcome them.

The app, although still in its development stage, empowers users to curate their watchlist, create time sheet entries for each show, and track their viewing time. By setting minimum and maximum watch time limits, users can strike a balance and stay mindful of their screen time.

Bangmul seamlessly integrates Firebase, a powerful platform by Google, to elevate the user experience. Firebase Authentication ensures secure user login and account management. Leveraging Firebase Storage, the app allows users to store and retrieve images, enriching their profiles and show entries. Firebase Firestore serves as a reliable and scalable database, facilitating efficient data storage and retrieval for user-generated content.

As an avid fan of K-Dramas, I have always been captivated by their unique storytelling, compelling characters, and the emotional rollercoaster they take viewers on. The passion and dedication of the actors, writers, and production teams have made K-Dramas a global sensation, captivating audiences from diverse cultures around the world.

The Korean Wave, also known as "Hallyu," has witnessed an unprecedented surge in popularity, spreading the influence of K-Dramas far beyond the borders of South Korea. With their distinct blend of romance, comedy, drama, and cultural elements, K-Dramas have successfully captured the hearts of millions, transcending language and cultural barriers.

Driven by my love for K-Dramas and a deep fascination with app development, I set out to create Bangmul. The word "Bangmul" translates to "Entertainment" in Korean, symbolizing the essence of this app - to bring the joy and excitement of K-Dramas to viewers worldwide.

Build Status: Completed

Please note that Bangmul is currently in the prototype stage, showcasing a simplified design and the implementation of essential features. As a prototype, it provides a glimpse of what the full-fledged app will offer in the future. The focus at this stage is to demonstrate the core functionalities and gather valuable feedback from users to shape the app's development path. While the current version of Bangmul may have limited features, it sets the foundation for an exciting and comprehensive K-Drama companion app that will continue to evolve and expand its capabilities.

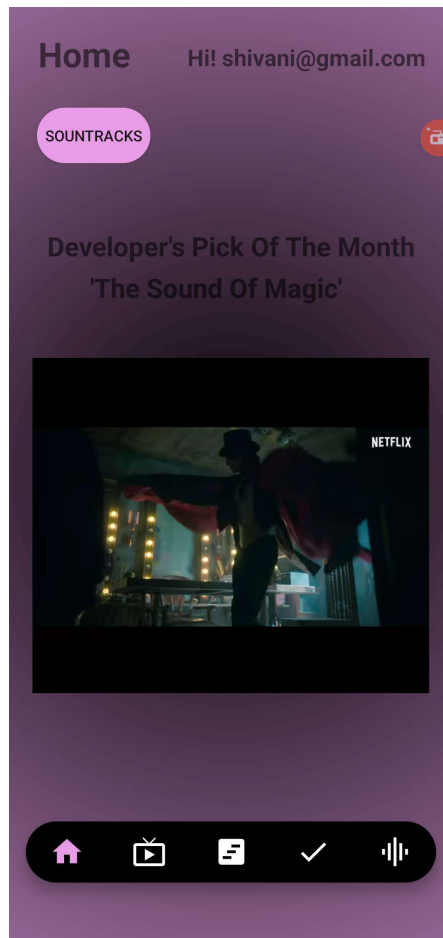# Changes Made Based On The Lecturer's Feedback

1. **Design**: Some changes of the application design include the better alignment of components on screen, as well as improved display layouts. The backgrounds of the Login and Register screens have also changed.

2. **Kotlin**: The application is now done in Kotlin.

3. **Filter**: Users can now use a date range filter to track their total watch time against the max and min hours that they have set for themselves. This date range filter consists of spinner, whereby the user can select a month that they would like to view their relevant data for.

4. **Graphing**: Based on the month that the user selects in the previous feature, the application will display a pie chart to the user with their total watch time, min, and max hours.

New Features

Feature 1 - Developer's K-drama Of The Month

This feature offers the user a personally chosen K-drama by the developer. As the development team, understand that a trailer is worth a thousand words, so Bangmul has integrated an implementation of the Android YouTube Player right within the app. With a simple tap, the user can dive into a captivating trailer that showcases the essence and allure of the featured K-Drama

Why is this feature so extraordinary? Not only does it allow the users to discover exceptional K-Dramas handpicked by experts/the Bangmul team, but it also provides users with a glimpse into the essence of each show through captivating trailers.

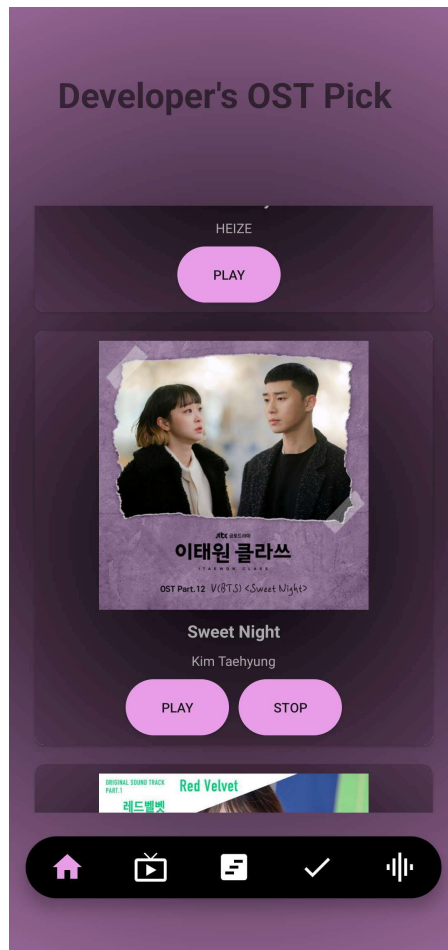The screenshot above demonstrates the Developer's K-drama of the month feature.

Feature 2 – OST Playlist

The other feature that has been added to Bnagmul is the K-Drama Original Soundtracks (OSTs) feature. With this feature, users can immerse themselves in the enchanting melodies that have become an integral part of the K-Drama experience.

In the realm of K-Dramas, music holds tremendous power. It evokes emotions, sets the mood, and transports viewers to the heart of each story. With our OST Playlist, we've carefully curated a collection of famous OSTs from fan-favorite K-Dramas, ensuring that users can relive those unforgettable moments anytime, anywhere.

To provide users with the utmost convenience and accessibility, all the songs have been uploaded, in high-quality MP3 format, along with their beautiful song covers, to Firebase storage. This means that users can seamlessly access and enjoy these iconic OSTs directly through the app.

The OST Playlist feature is a gateway to pure bliss, enabling users to indulge in the beauty of K-Drama music anytime they desire.

The screenshot above demonstrates the K-drama OST playlist.

Key Features of Bangmul

1. **User Authentication**: Bangmul incorporates Firebase Authentication, allowing users to securely create and manage their accounts. Users can register using their email and password.

2. **Show Tracking**: The app enables users to add their favourite K-Dramas to their watchlist. They can create a personalized collection of shows they intend to watch or are currently watching. This feature helps users keep track of their progress and discover new shows to explore.

3. **Time Sheet Entries**: Bangmul allows users to create time sheet entries for each K-Drama they watch. Users can record details such as the timesheet name, description, and duration spent watching the show. This feature helps users maintain a log of their viewing habits and track their entertainment hours effectively.

4. **Minimum and Maximum Watch Time**: Users can set minimum and maximum watch time preferences in Bangmul. This feature assists in managing their viewing duration and ensures a balanced approach to their K-Drama consumption. Users will now also be able to view a pie

chart which gives them information about their total watch time and their max and min goals.

5. **Firebase Integration**: Bangmul leverages Firebase as the backend platform, enabling seamless data storage, retrieval, and synchronization across devices. Firebase offers real-time database capabilities, ensuring that users' data remains up to date and accessible from any device.

6. **Firebase Storage**: The app utilizes Firebase Storage to securely store and retrieve user-uploaded images, such as show posters or timesheet photos. This allows users to customize their profiles and show entries with visual elements of their choice.

7. **Sleek and Intuitive Design**: Bangmul features a user-friendly and aesthetically pleasing interface. The app's design prioritizes simplicity, allowing users to navigate effortlessly and focus on their K-Drama experience.

8. **K-Drama Inspiration**: Bangmul draws inspiration from the global phenomenon known as the Korean Wave, where K-Dramas have gained immense popularity worldwide. The app aims to celebrate and provide a platform for K-Drama enthusiasts to engage with their favorite shows.

9. **K-drama of the month**: One of the app's standout features is the "Developer's Top Pick of the Month," where users can discover the most compelling K-Dramas carefully selected by the developers. This selection showcases an outstanding series released in the current month that has captured the developer's attention and left a lasting impression.

   To enhance the viewing experience, Bangmul offers an exciting opportunity for users to explore this top pick further. Through our app, users can access exclusive trailers of the selected K-Drama directly from YouTube. This integration seamlessly combines the convenience of Bangmul with the excitement of previewing captivating scenes, enticing viewers to delve deeper into their K-Drama journey.

   Bangmul's "Developer's Top Pick of the Month" feature provides a gateway for K-Drama enthusiasts to stay up to date with the latest trends, discover hidden gems, and ignite their passion for Korean television.

10. **OST (Original soundtrack playlist):** This feature allows users to discover an extraordinary collection of captivating songs from fan favourite K-Dramas, all in one place. Plus, users can enjoy the convenience of listening to the full songs directly within the app.

Bangmul Was Developed Using The Following Software:

- Android Studio (Electric Eel 2022.1.1)
- Firebase
- Microsoft Windows 11 OS

- Git (2.36.1) 64-bit
- GitHub

Bangmul Was Developed Using The Following Hardware:

- Processor: 11th Gen Intel® Core™ i5-11400H @2.70GHZ, 2688 Mhz, 6 Core(s), 12 Logical
- Processor - RAM: 8GB
- Disk Space Available: 319 GB

Software And Hardware Requirements To Run The Program:

- Windows 7 or higher
- Android studio (Electric eel 2022.1.1 or higher)
- Requires a 2.6 GHz or faster processor. Quad core or better recommended.
- Requires 1 GB of RAM or higher for load generation.
- Requires MAX 1 GB of hard disk space.

Please ensure that you have internet connection to test the application, as the application makes use of the online service – Firebase to store and retrieve information.

How To Compile And Run The Program

Method 1: Using the Android Studio Toolbar

- Open Android Studio and ensure you have the project files of Bangmul available.
- Click on the "Open an Existing Android Studio Project" option in the welcome screen.
- Navigate to the location where you have saved the Bangmul project files and select the project folder.
- Android Studio will load the project and perform necessary indexing and syncing processes.
- Once the project is fully loaded, locate the toolbar at the top of Android Studio.
- In the toolbar, locate and click on the "Run 'app'" button (usually a green triangle icon).
- Select the emulator you want to use from the available device options or create a new emulator if none exist.
- Android Studio will build the project and launch the emulator with the Bangmul app running.

Method 2: Using Keyboard Shortcut

- Open Android Studio and ensure you have the project files of Bangmul available.
- Press the keyboard shortcut combination Shift + F10 (Windows/Linux) or Control + R (Mac).
- Android Studio will build the project and display a list of available devices.
- Choose the emulator you want to use by clicking on it or create a new emulator if necessary.
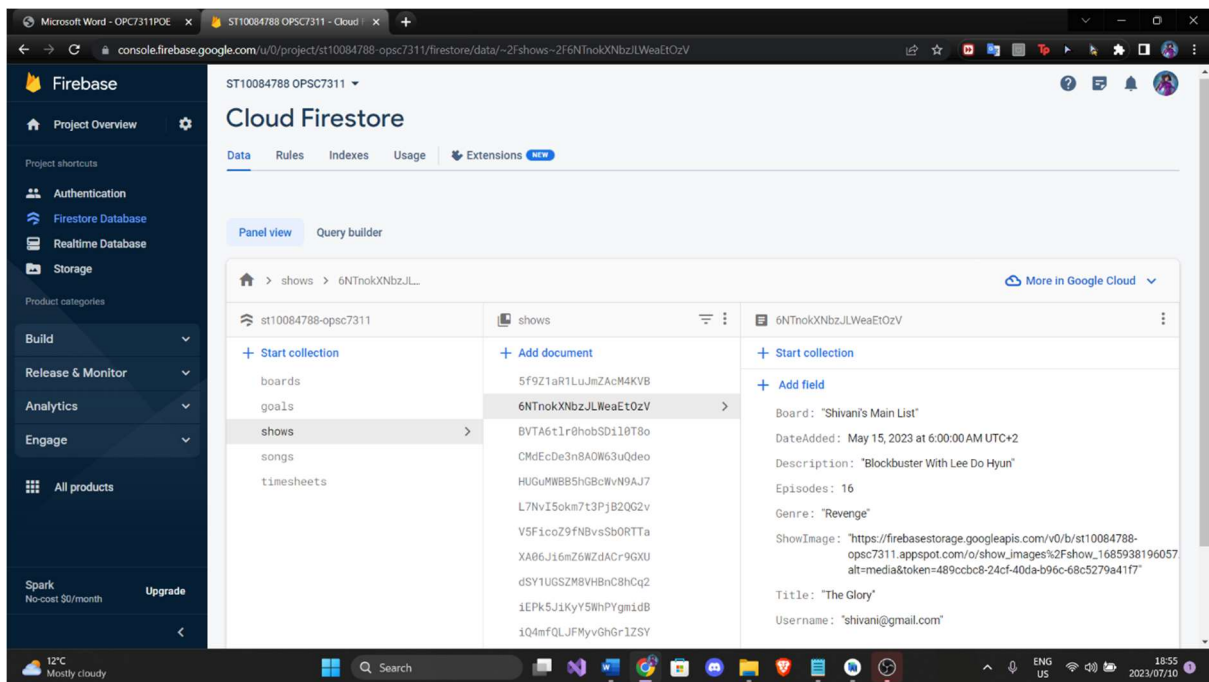- Android Studio will deploy the app to the selected emulator and launch it automatically.

Method 3: Using the APK file to install and run the Bangmul app on the Android Studio emulator

- Make sure you have the Bangmul APK file (debug version) available on your computer.
- Open Android Studio and launch the emulator you want to use.
- Drag and drop the APK file onto the emulator screen or the emulator window. Alternatively, you can right-click on the APK file and select "Open With" > "Emulator" to install it.
- The emulator will start installing the app from the APK file.
- Once the installation is complete, you should see the Bangmul app icon in the app drawer of the emulator.
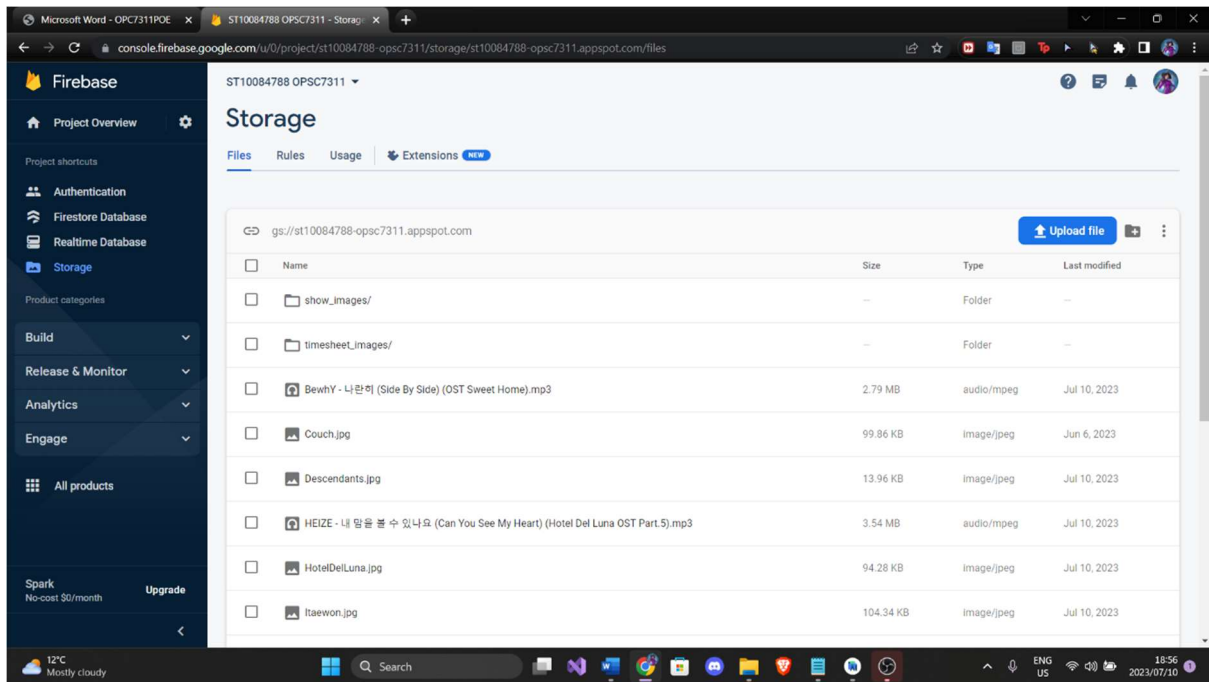- Click on the Bangmul app icon to launch it.

Once the app runs in the emulator, you may create or account or log into the test account.

Email address	Password
testuser@gmail.com	TestPassword23_

Firebase collections:

The screenshot above showcases the Firestore used by the Bangmul application

The screenshot above showcases the Storage account of the Bangmul application.

Frequently Asked Questions (FAQ)

Q: How do I create an account?

A: When you first launch the app, you will be presented with the splash screen and then the login in screen. In the login screen there is a button titled "Register", if you click on this, you will be brought to register screen where you can create an account.

Q: Can I use the same email address twice?

A: No, you will only be able to register your email address once.

Q: How do I add a show?

A: To create a show, you will need to navigate to the shows tab, on the shows tab, there will be an option to add a new show, once you click on this link, you will be redirected to the page that allows you to add a new show. Similar steps can also be followed to create a timesheet entry and a watch goal.

Q: For making a new timesheet entry, do I have to provide a picture?

A: No, it is optional. There is a default picture, however you can add a picture to your timesheet entry.

Q: How would I add pictures whilst using the app?

A: You will have to click the select image buttons, once that has been clicked, you will be given the choice to either select a picture from your gallery or you may take a picture with your camera.

Support

Developer name: Shivani Naidu

Developer email: shivanijw05@gmail.com

Contact number: 0743432766

Kanban Board

Link to kanban: https://github.com/users/ST10084788/projects/14/views/1

Code Attribution

Android Developers. (n.d.). *Create dynamic lists with RecyclerView*. [online] Available at: https://developer.android.com/develop/ui/views/layout/recyclerview.

Firebase. (n.d.). *Cloud Firestore Data model*. [online] Available at: https://firebase.google.com/docs/firestore/data-model.

Firebase. (n.d.). *Create a Storage Reference on Android*. [online] Available at: https://firebase.google.com/docs/storage/android/create-reference.