

Project YP ★

App development project

Creating, sharing and inspiring★



Created by Cheng Yu Yang and Meerab Khan

What it is

We're creating a mobile app platform for designing and sharing fake Yu-Gi-Oh and Pokémon concepts.

Goal: all in one mobile platform for Yu-Gi-Oh and Pokémon fans

Features

- Login system
- Explore character designs and concepts
- Create concepts quickly from a guide
- Upload and share concepts
- User profiles
- Navigation



Target Users

Who We're Designing For

- Anime, video game and TCG(trading card game) fans
- Artists and designers
- Game theorists
- Competitive players
- Collectors who want to showcase custom decks

Our technology

We are developing a Mobile application using Dart and Flutter Framework

Technology usage

- Android Studio
- Flutter framework
- Firebase
- Material Icons
- Pokemon Showdown API
- Yu-Gi-Oh cards API



Our data

Our data will be stored using



Data

- Users and login data
- User Profiles
- Pokemon concepts
- Pokemon images
- Yu-Gi-Oh card concepts
- Yu-Gi-Oh card images



Our Data

Here are our tables:

Users

id	username	password	email
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Pokémon

id	user_id	card_id	name	types	stats	abilities	dex	image
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Yu-Gi-Oh

id	user_id	card_id	name	attribute	types	level	stats	effect	image
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Cards

id	type
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Likes

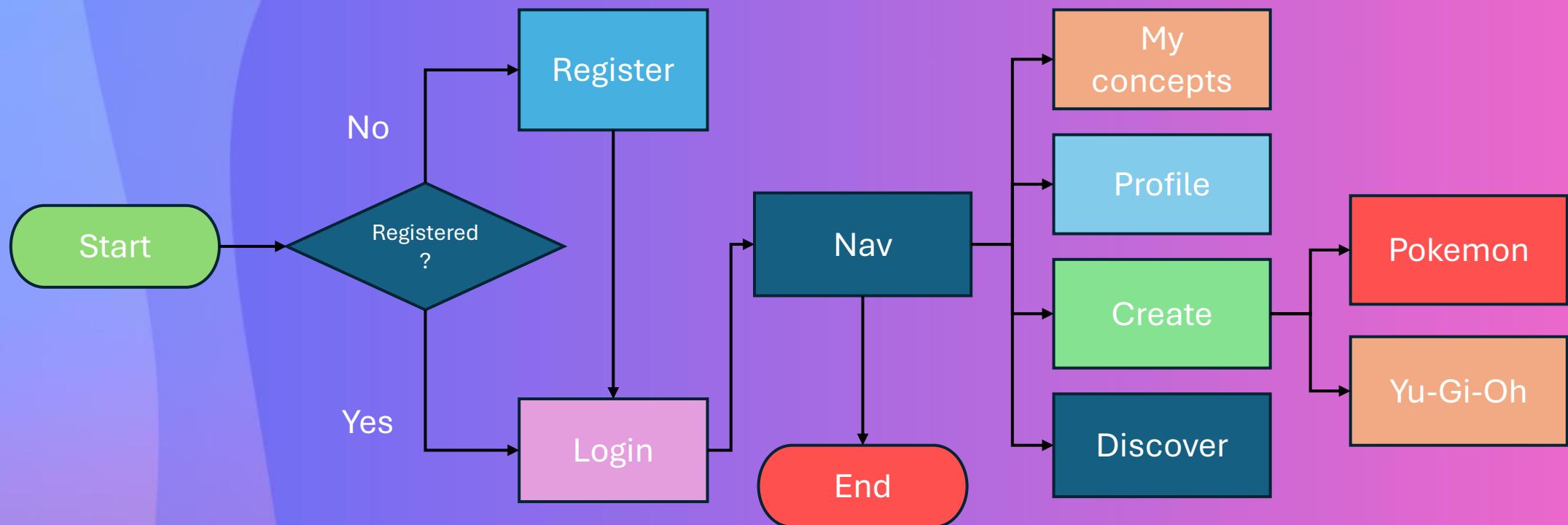
id	card_id	user_id
----	---------	---------

Comments

id	card_id	items
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Our flow

This is the basic flow of our application



Expected Functionality

Build #2 & #3

- Complete Authentication flow
- Implement database connections
- Real time likes, comments, and sharing
- Notifications and badges
- Advanced search and filters
- Improved UI
- i18n Internationalization

Feature Selection

- How did you determine which features to include and which to exclude from your project?

- Focused on core user interactions like viewing cards
- Prioritized features that demonstrate Firebase integration and state management
- Excluded advanced features (real-time chat, notifications) due to **time constraints**
- Decisions were guided by **course objectives**, not feature quantity

Team Work Division

How did you divide the work among your team?

Meerab

- Brainstorming ideas
- Merging ideas
- Powerpoint presentation #1 pages
- Project Aim
- Project Description
- Functional and non-functional requirements
- Document review

Planning

Cheng

- Brainstorming ideas
- Merging ideas
- Powerpoint presentation #1 design
- Powerpoint presentation #1 pages
- Presentation day #1
- User Stories
- Document review and revision

Team Work Division

How did you divide the work among your team?

Meerab

- Login page design
- Register page design
- Google Login page design
- Dashboard page design
- Concepts list page design
- Figma Prototype links

Designing

Cheng

- Color palette
- Create page design
- Profile page design
- Settings page design
- Logo design
- Figma Prototype links

Team Work Division

How did you divide the work among your team?

Meerab

- Create Firebase
- Create home view
- Pokemon and YuGioh detail's view
- Create splash screen
- Create profile view
- Create register view
- Create login view
- Yugioh API view
- Yugioh Model
- Merging views

Implementing

Cheng

- Getting dependencies
- Centralizing pages
- Centralizing dependencies
- Pokemon Model
- Pokemon Showdown Dex Fetch
- Pokemon Showdown Sprites Fetch
- Pokemon API View

Problem & Inspiration

What were some major difficulties you had to overcome during development?

Many fans love designing custom
Pokémon or Yu-Gi-Oh, but there is no
centralized platform.

Challenges

- Synchronizing Firestore data across multiple views
- Managing state updates when returning from detail pages
- Designing a scalable likes/comments data structure
- Handling Flutter widget lifecycle (initState, rebuilds)
- Debugging asynchronous Firebase calls
- API data parsing and model mapping

What Went Smoothly

What aspects of the project went more smoothly than expected?

- Firebase integration for likes and comments
- Designing the application for login and registration
- UI design consistency across Pokémon and Yu-Gi-Oh views
- Modular code structure made features reusable
- Using Firebase to store Users data and google sign in

Future Improvements

How can you improve your project in the future?

- Convert likes/comments to real-time listeners
- Add user profiles and avatars
- Implement pagination for large card lists
- Improve comment moderation (reporting, replies)
- Enhance UI animations and transitions
- Adding Internationalization
 - Adding more options to share cards with their image and app link

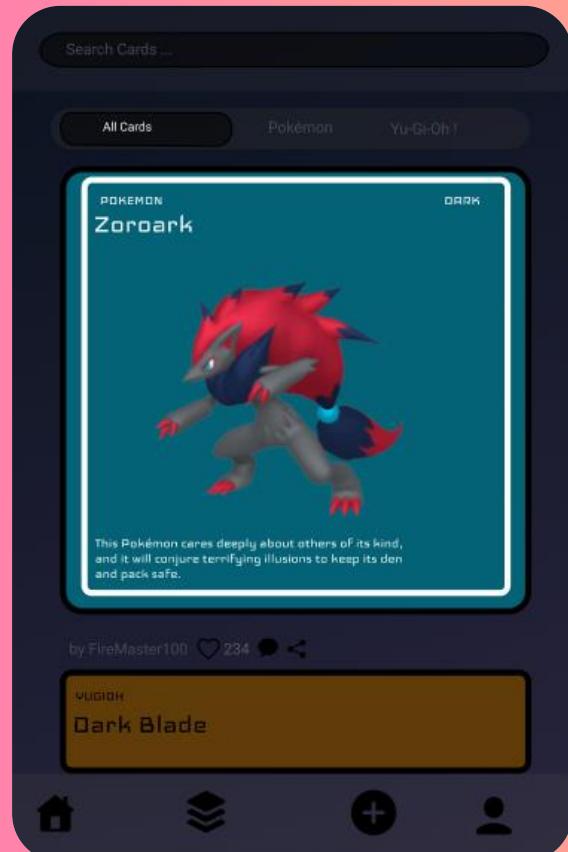
Git & Version Control

Did you use Git for version control? What was your learning experience?
How did you handle Git conflicts?

- Git was used for version control and working together on the same application
- Learned proper commit practices and branching
- Git helped track progress and recover from errors
- Conflicts were resolved by:
- Reviewing changes line-by-line
- Testing after conflict resolution

Our mock app

This is the mock app that was created in Figma



Link

<https://www.figma.com/proto/prpmVhX63HTDCU5kkE7uDo/Project-YP?page-id=0%3A1&node-id=2-2&p=f&viewport=-2667%2C869%2C1.17&t=3NmZGCYhuYLUw2Ru-1&scaling=min-zoom&content-scaling=fixed&starting-point-node-id=2%3A2>

Our repository

Our code will be developed with Git version control on this repository

<https://github.com/MEERABLK/project-yp>



Works Cited

<https://opengameart.org/>

<https://play.pokemonshowdown.com/sprites/home/>

<https://www.deviantart.com/gena97/art/Dark-Blade-913890766>

<https://www.smogon.com/dex/sv/formats/cap/>

<https://ygoprodeck.com/api-guide/>

https://www.google.com/search?q=ProgrammingKnowledge+how+to+setup+ssh+firebase&sca_esv=f85673565f5b1f98&sxsrf=AE3TifOWVX_ng_9oLFN4JsN9_OGF1RpXWg%3A1765150329874&ei=eQ42aeCANZmg5NoP597_uAU&ved=0ahUKEwigoYyz0ayRAxUZEfkFHWfvH1cQ4dUDCBE&uact=5&oq=ProgrammingKnowledge+how+to+setup+ssh+firebase&gs_lp=Egxnd3Mtd2l6LXNlcnAiLlByb2dyYW1taW5nS25vd2xI ZGdlIGhvdB0byBzZX R1cCBzc2ggZmlyZWJhc2UyBRAhGKABMgUQIRigATIFCEYoAFI8BFQkwNYthBwAXgBkAEAmAGiBKABkA-qAQU0LTMuMbgBA8gBAPgBAZgCBaACxw_CAg oQABiwAxjWBBhHmAMAiAYBkAYIkgcFMS40LTSgB7QOs gcDNC00uAfBD8IHBTItNC4xyAcdgAgA&sclient=gws-wiz-serp#fpstate=ive&vld=cid:48035ad2,vid:ndlCRoLogWA,st:0

<https://pub.dev/packages/geolocator>

https://pub.dev/packages/share_plus

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Thank you for being a good audience

Have a good day ★

