



**School of Engineering and Technology  
Department of Computer Science & Engineering**

**Major Project on  
Mobile App Development using Flutter**

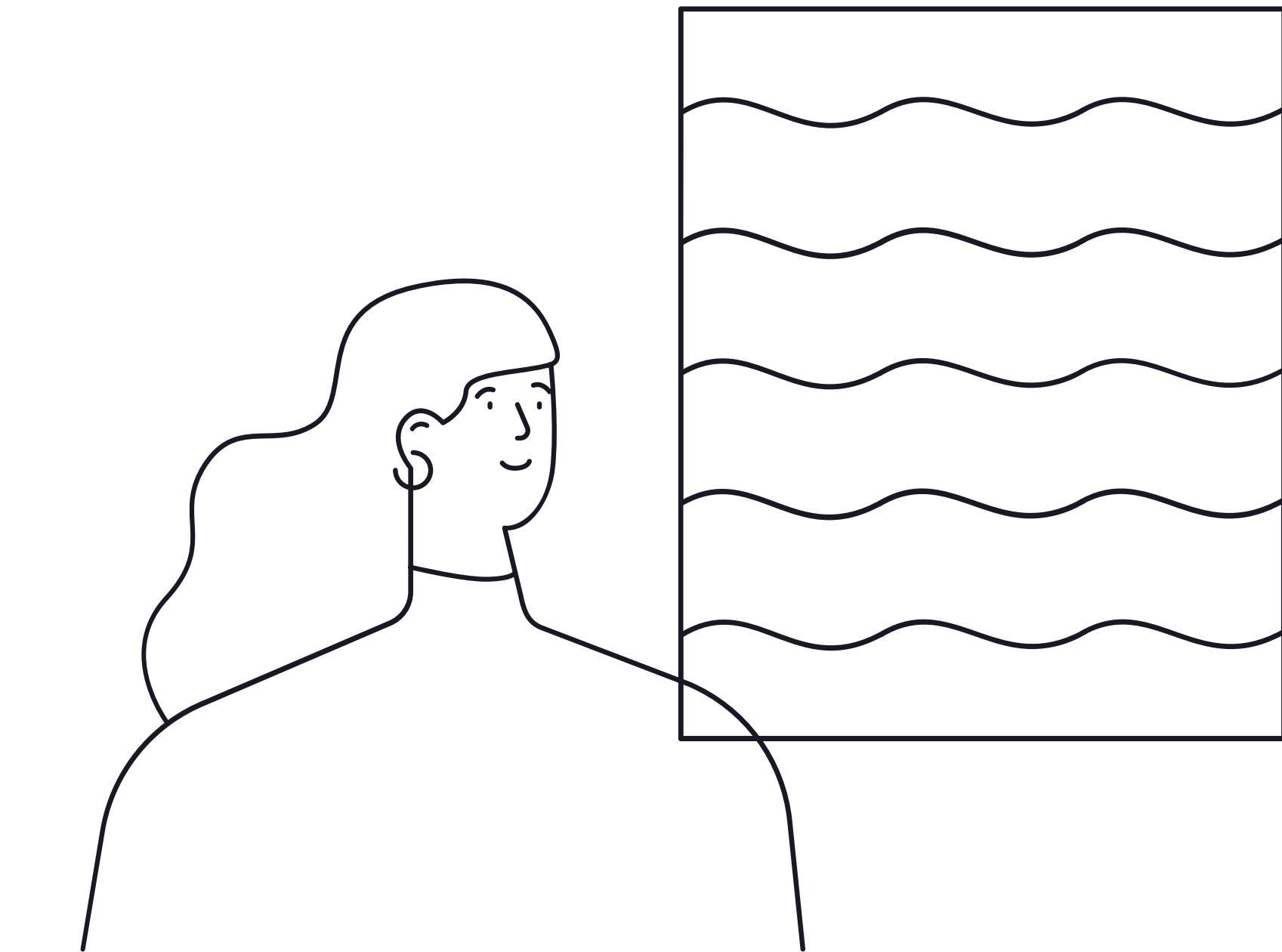
**UNDER THE SUPERVISION OF:  
DR. DILEEP KUMAR SINGH  
HEAD, JLU-SOET**

**PRESENTED BY:  
AMISHA DAS (2019BCA003)**

**Gametrax**

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# Introduction

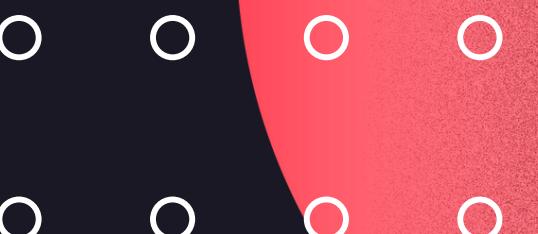
*Gametrax logo*



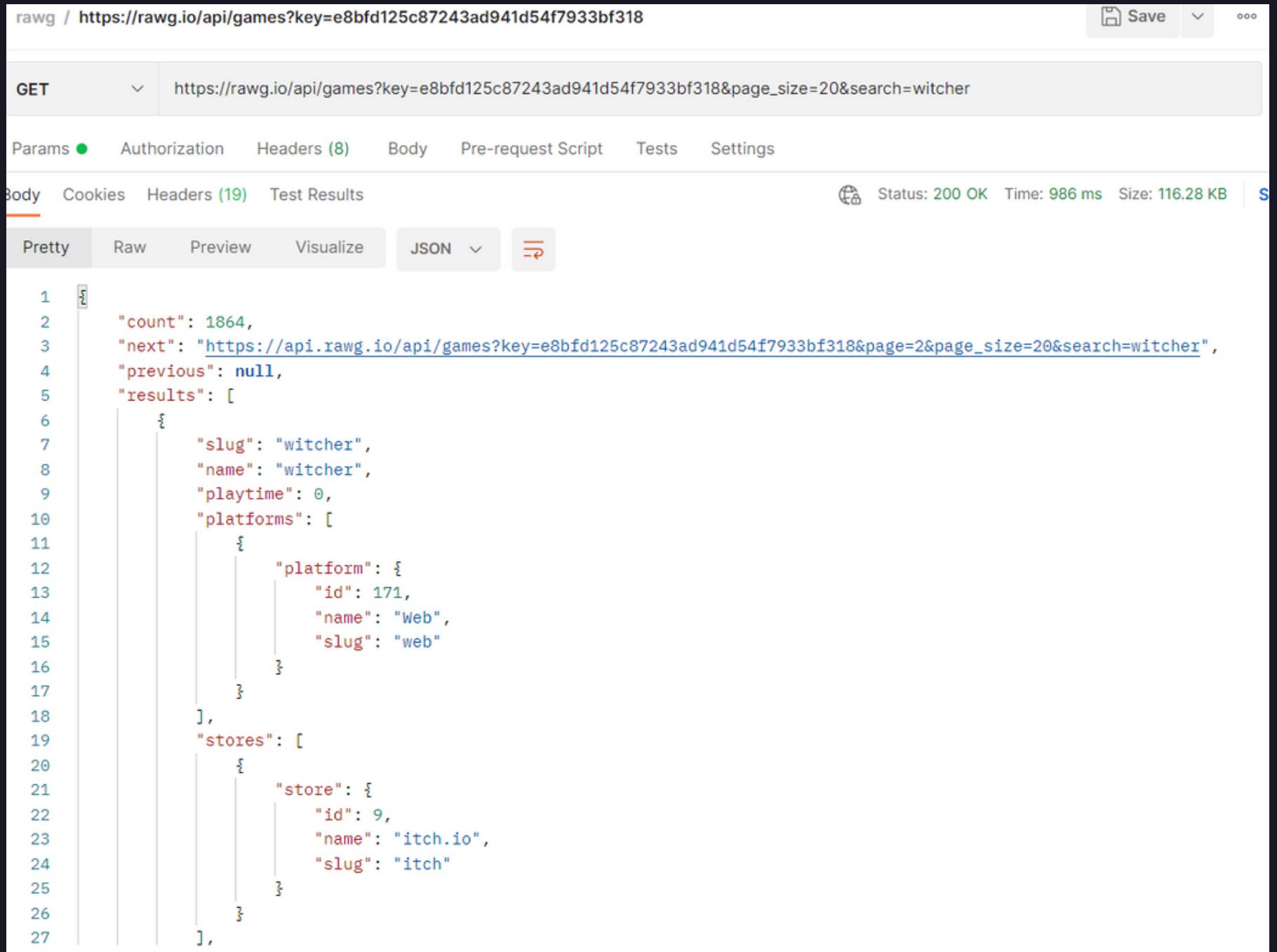
Gametrax

**GAMETRAX IS AN APP FOR HELPING GAMERS KEEP TRACK OF THEIR GAMES AND STAY UP TO DATE WITH GAMING NEWS AND INFORMATION.**

**USERS CAN SEARCH FOR LATEST GAMING INFORMATION AND NEWS ON THE APP**

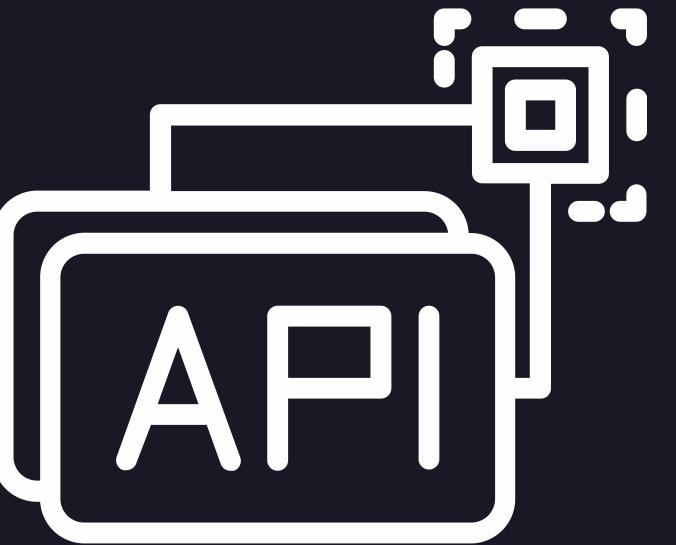


# EXISTING SYSTEMS

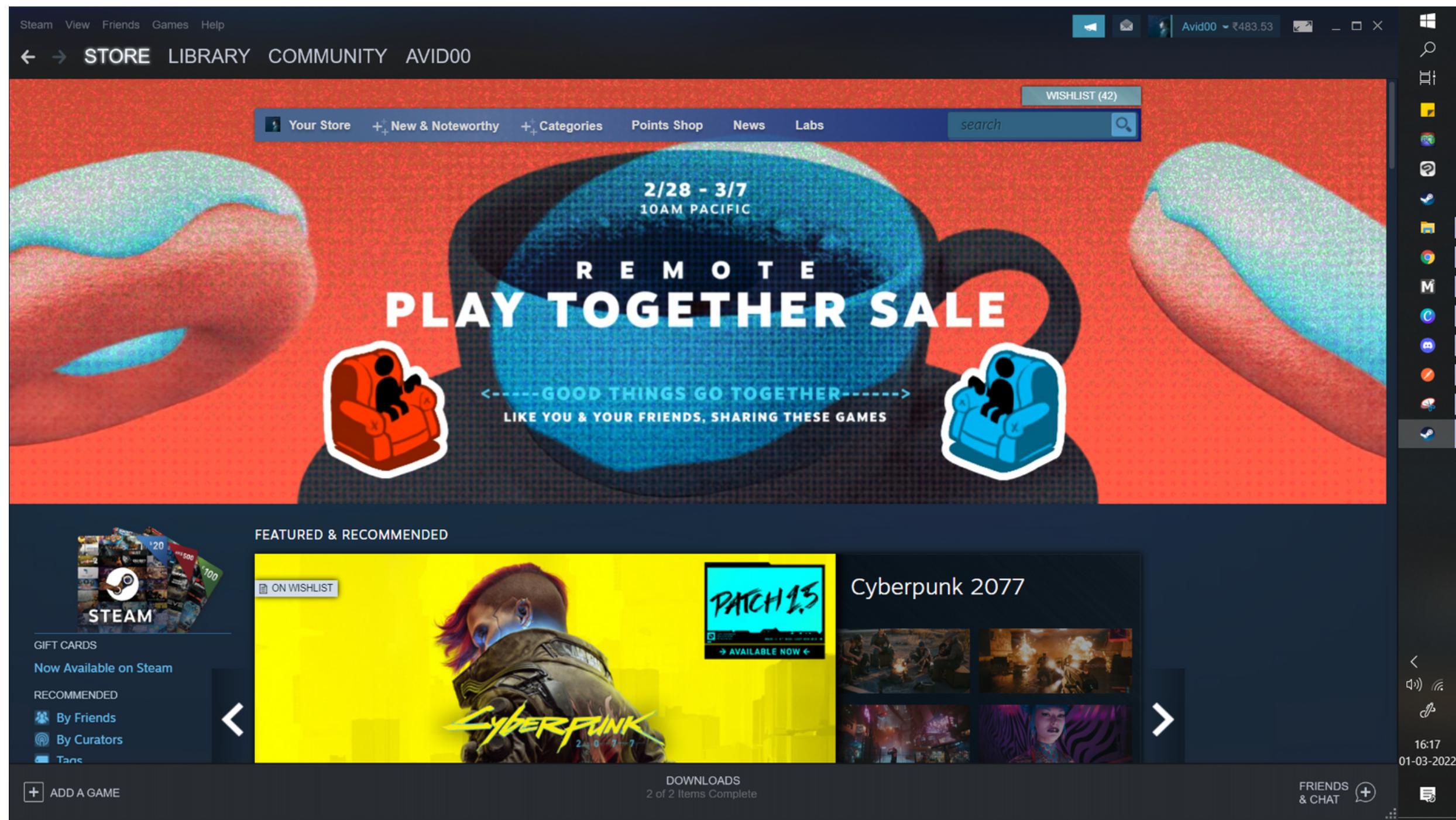


A screenshot of a Postman API request for rawg.io/api/games. The request is a GET to https://rawg.io/api/games?key=e8bfd125c87243ad941d54f7933bf318. The response status is 200 OK, time is 986 ms, and size is 116.28 KB. The response body is a JSON object with the following structure:

```
1  {
2      "count": 1864,
3      "next": "https://api.rawg.io/api/games?key=e8bfd125c87243ad941d54f7933bf318&page=2&page_size=20&search=witcher",
4      "previous": null,
5      "results": [
6          {
7              "slug": "witcher",
8              "name": "witcher",
9              "playtime": 0,
10             "platforms": [
11                 {
12                     "platform": {
13                         "id": 171,
14                         "name": "Web",
15                         "slug": "web"
16                     }
17                 },
18             ],
19             "stores": [
20                 {
21                     "store": {
22                         "id": 9,
23                         "name": "itch.io",
24                         "slug": "itch"
25                     }
26                 },
27             ]
28         ]
29     ]
```

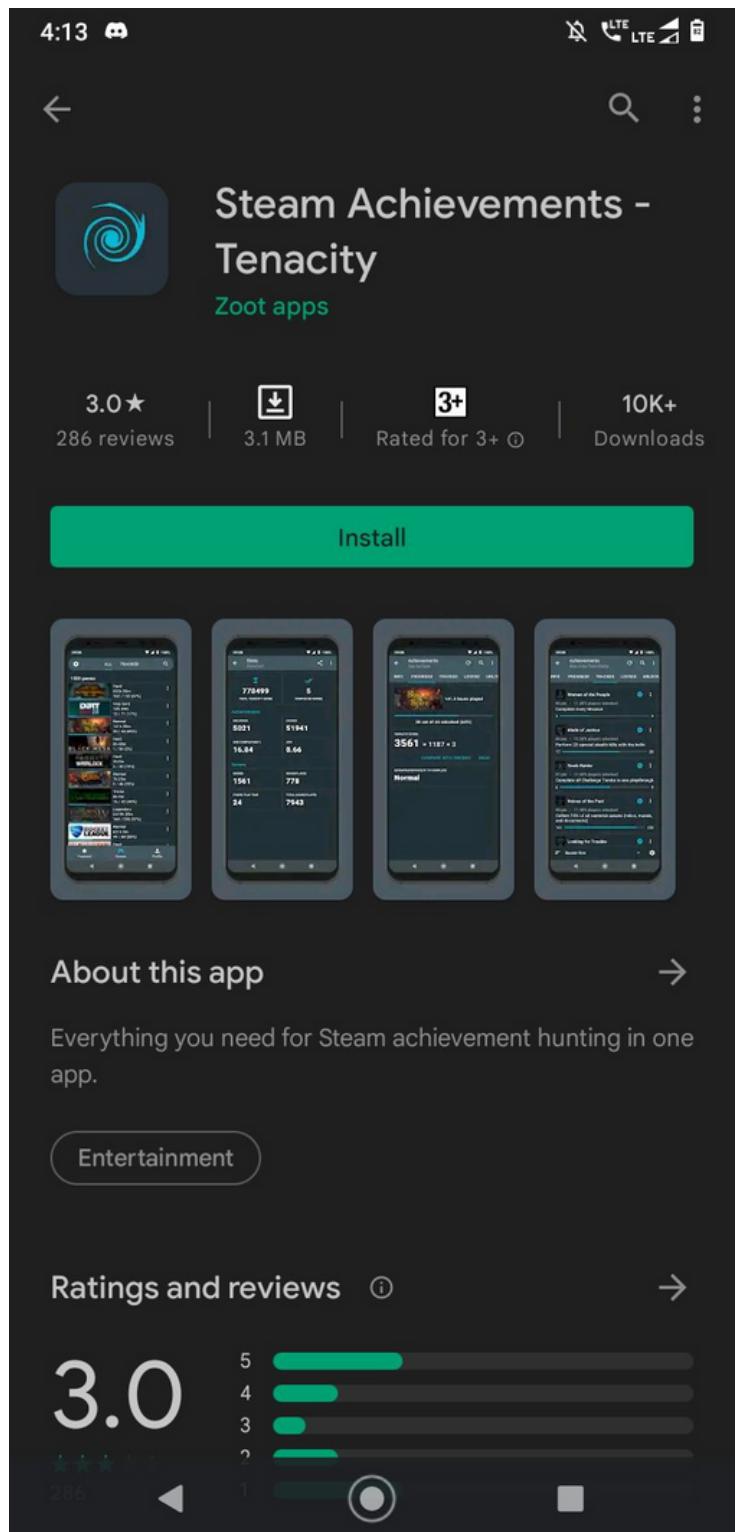


APIs are messy and difficult to access without keys and code for a layperson

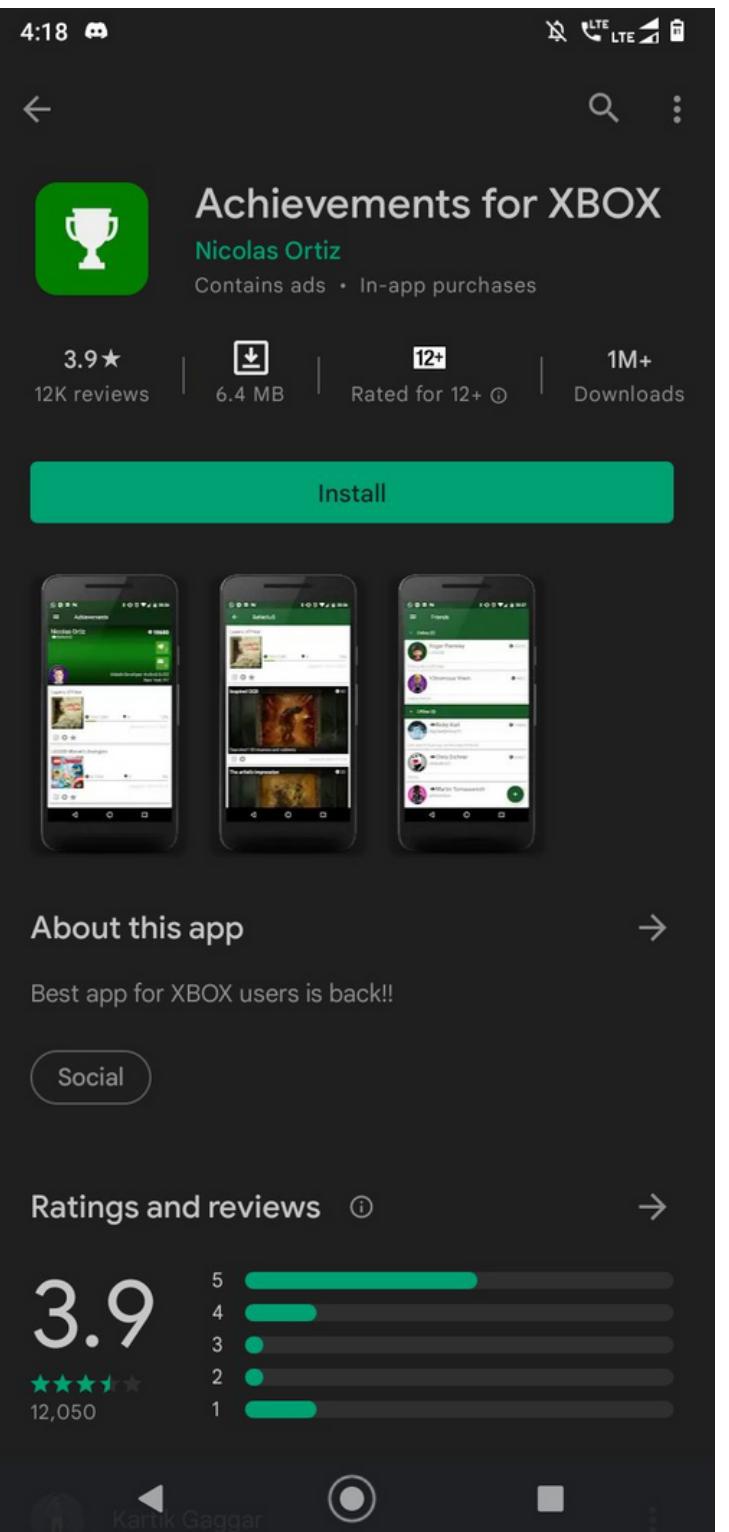


need to go to steam, other  
DRM or google to check  
prices for a game

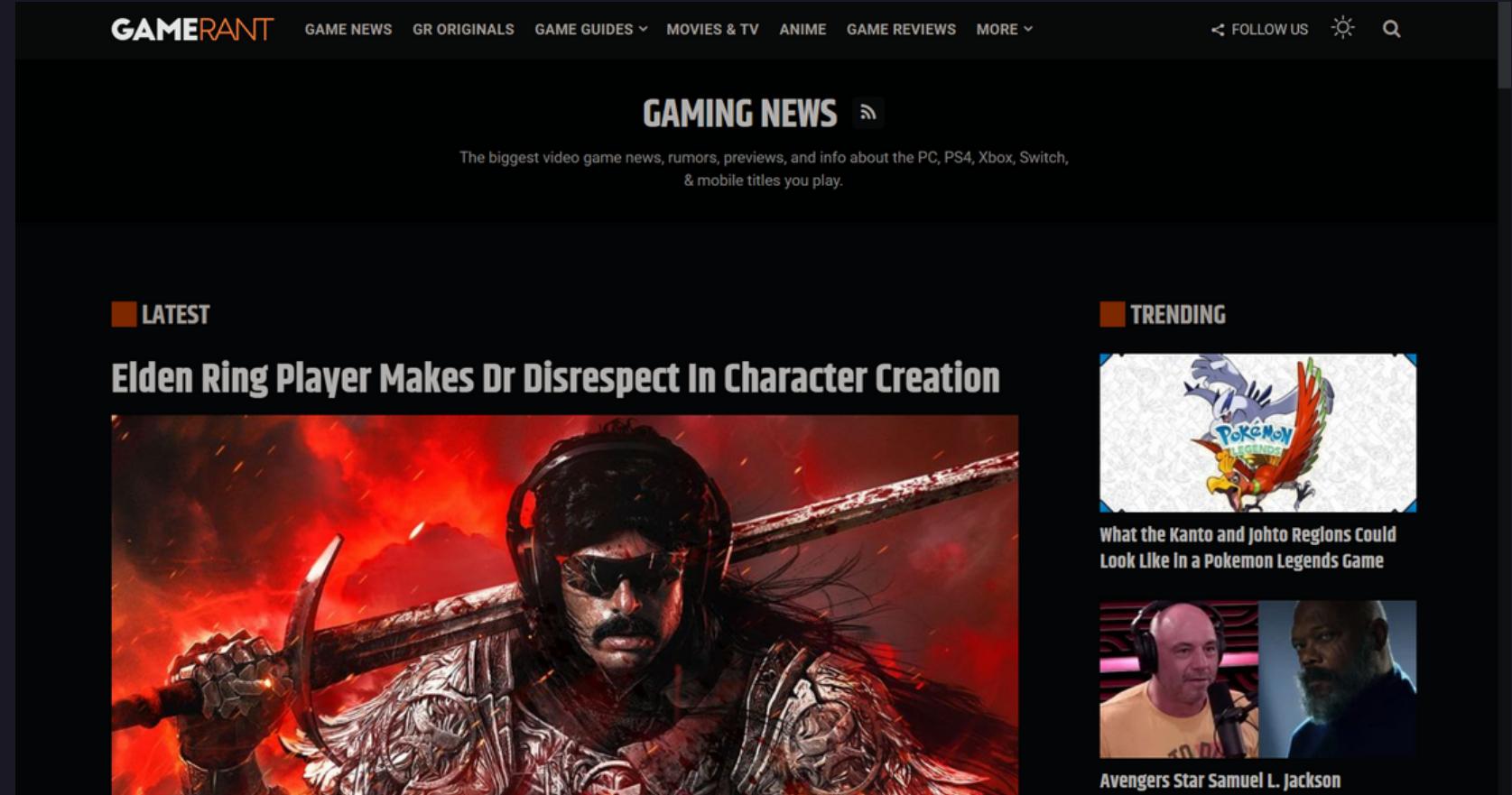
# Tracking Apps



tracks only steam  
achievements



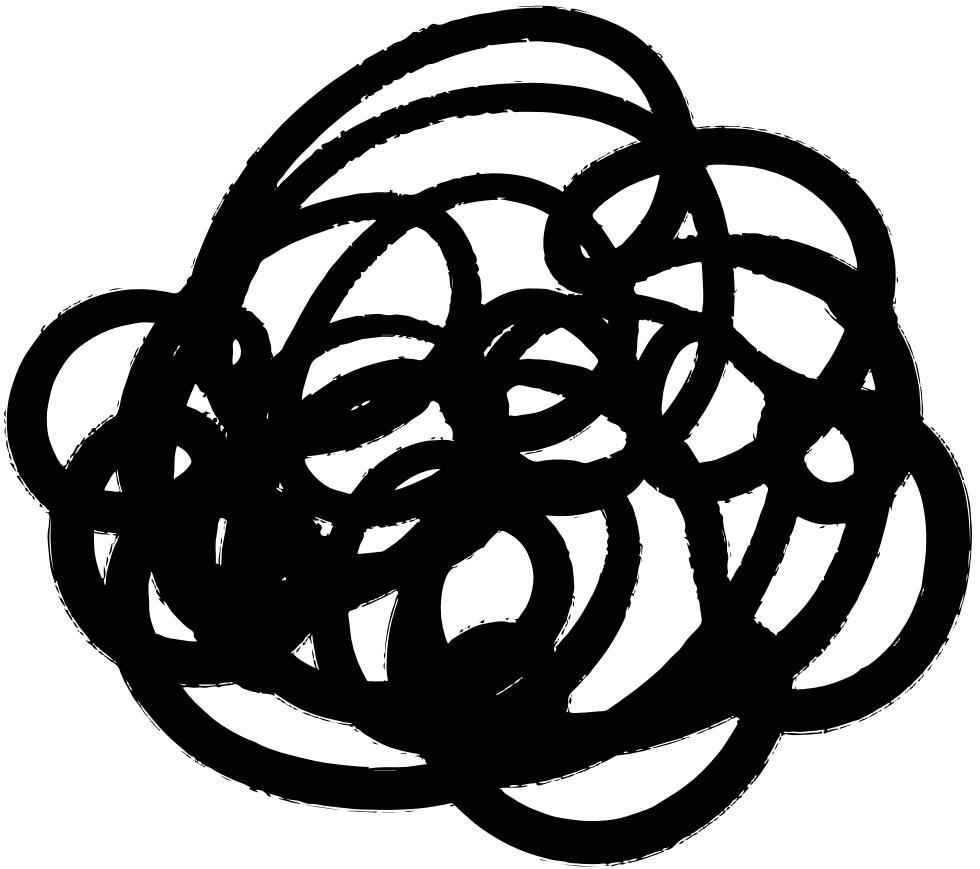
tracks only xbox  
achievements



No apps dedicated for  
gaming news, only websites

# IMPORTANCE & NEED OF PROJECT

- Available information is very annoying to find
- cannot store and make lists of everything in one place
- lack of cohesiveness
- different platforms for games





# SO MUCH INFORMATION TODAY



- too many consoles
- too many platforms
- too many news websites
- too many stores and too many different prices

# USERS

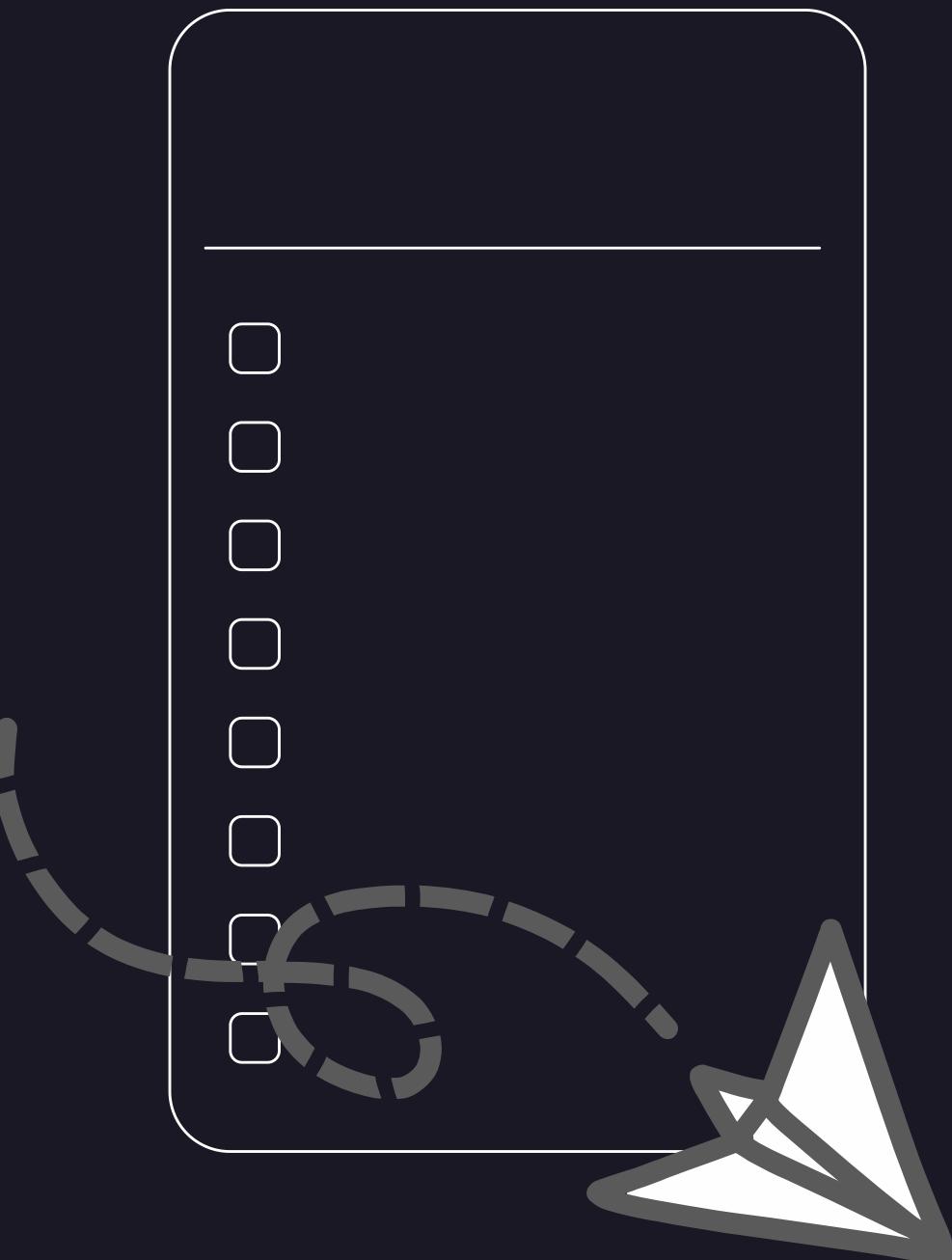


- gametrax can be used by anyone, of any age
- android smartphone users
- anyone who likes gaming and wants to maintain a record of their desired games

# FEATURES OF PROJECT

Gametrax is useful for gamers who:

- latest gaming news
- add games to lists and keep record
- compare prices for one game from different websites
- popular games to try
- be able to find prices for games on different platforms with just one button
- create a budget for games



# TOOLS AND TECHNOLOGIES USED

## Flutter & Dart

Flutter/Dart is used for coding  
Gametrax

Flutter is fast, clean and latest  
technology.





# Firebase

## Firebase

Firebase is used as the backend and DBMS for Gametrax

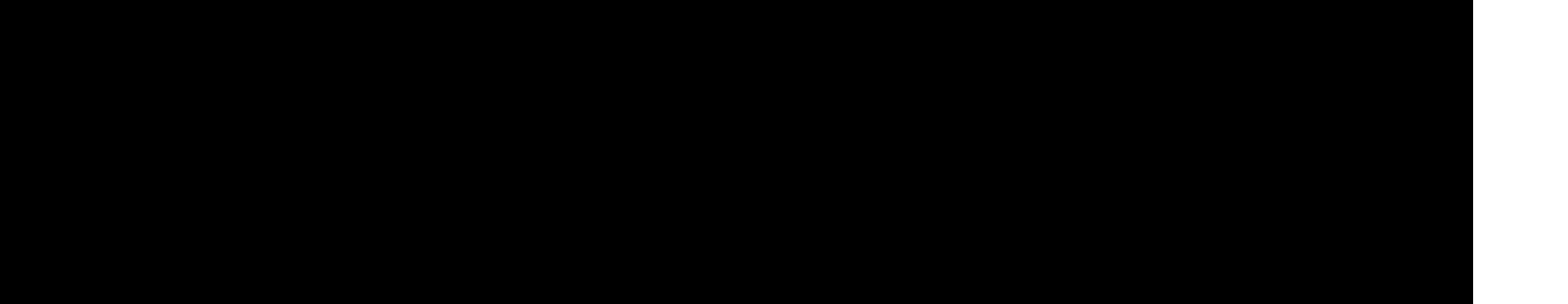
Firebase is very secure, does not require setting up as meticulously as other databases do

Cloud storage with very fast responses

Free for 1GB of data storage

# RAWG API

RAWG API will be used to get information regarding the games



**RAWG** Why RAWG API Pricing Terms Updates Use Cases [Become a patron](#) [Twitter](#) [Discord](#)

# Explore RAWG Video Games Database API

There are two types of companies: hoarders and givers. RAWG is the largest video game database and game discovery service. And we are gladly sharing our 500,000+ games, search, and machine learning recommendations with the world. Learn what the RAWG games database API can do and build something cool with it!

[Read documentation](#) [Get API Key](#)

RAWG

Search 488,835 games

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- [All time top 250](#)

All Games

Browse

## Popular in 2020

Order by: Popularity Platforms

Game	Platform	Popularity
Cyberpunk 2077	PC, PlayStation 4, PlayStation 5, Xbox One, Xbox Series X/S	67
Fall Guys: Ultimate Knockout	PlayStation 4, PlayStation 5, Xbox One, Xbox Series X/S	80
The Last of Us Part II	PlayStation 4, PlayStation 5, Xbox One, Xbox Series X/S	80
Black Mesa	PC, PlayStation 4, PlayStation 5, Xbox One, Xbox Series X/S	86
Mafia II: Definitive Edition	PlayStation 4, PlayStation 5, Xbox One, Xbox Series X/S	65
Ghost of Tsushima	PlayStation 4, PlayStation 5, Xbox One, Xbox Series X/S	85

A detailed view of a game entry on the RAWG API. The game is "Vampire: The Masquerade - Bloodlines 2".

Play full video

Windows, PlayStation 4, PlayStation 5, Xbox One, Xbox Series X/S

## Vampire: The Masquerade - Bloodlines 2

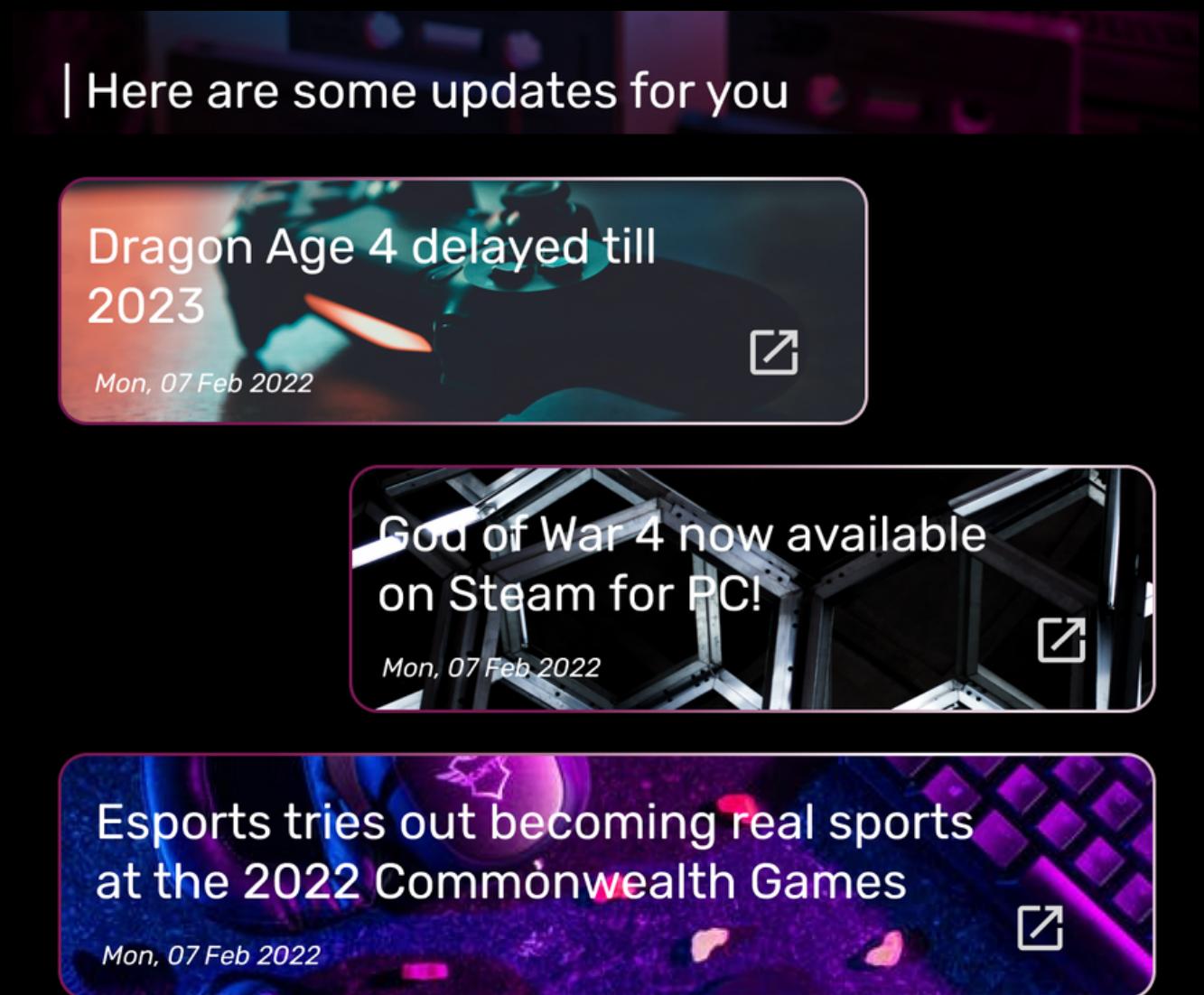
485 reviews

Release date: Dec 31, 2022

Genres: Action, RPG

Chart: #2 Top 2022

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# newsAPI

newsAPI will be used to get latest news about games on the homepage for the user to click



# priceAPI

priceAPI will be used to get the latest prices of the game from eBay, Amazon and Steam.

# SYSTEM/USER REQUIREMENTS

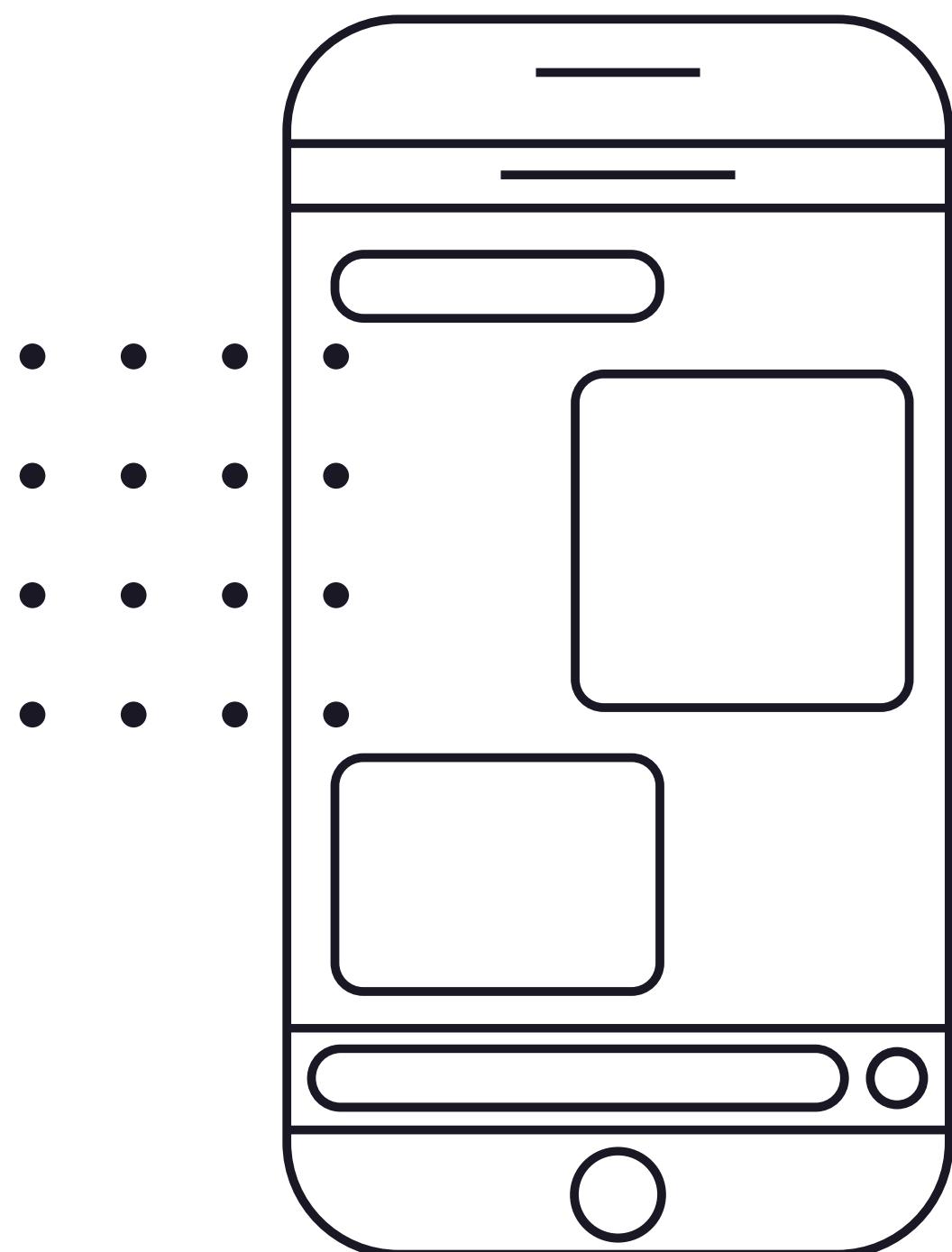
- System needs to be over Android (2.3) Gingerbread OS (seventh android version) on their smartphone to be able to run Gametrax.
- The user also needs to be aware of games and gaming media. This app will not be useful for someone who is not interested in gaming

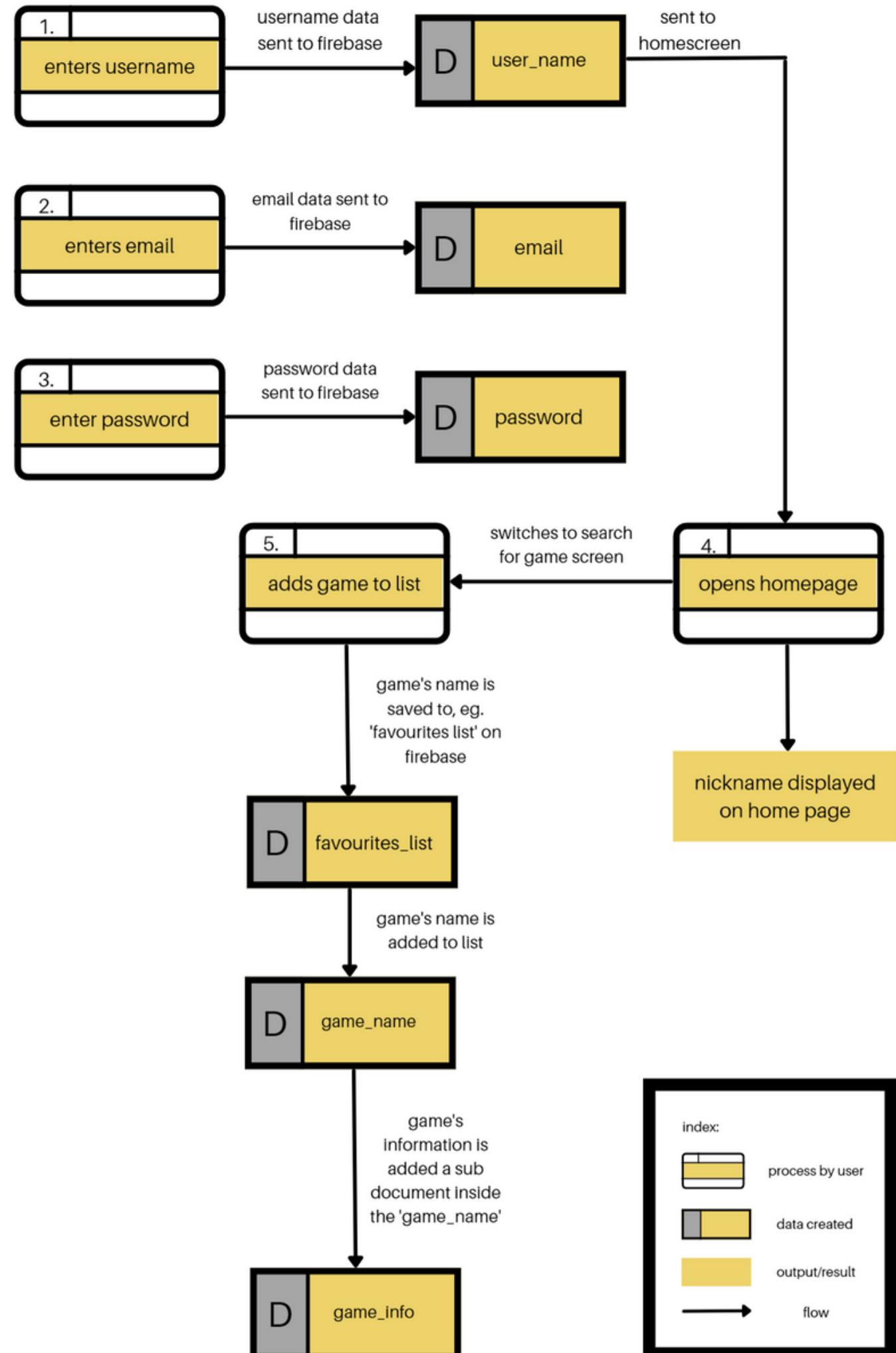


# DIAGRAMS

Following are the diagram created for development of Gametrax:

1. Data Flow Diagram
2. Sequence Diagram and
3. State Transition Diagram

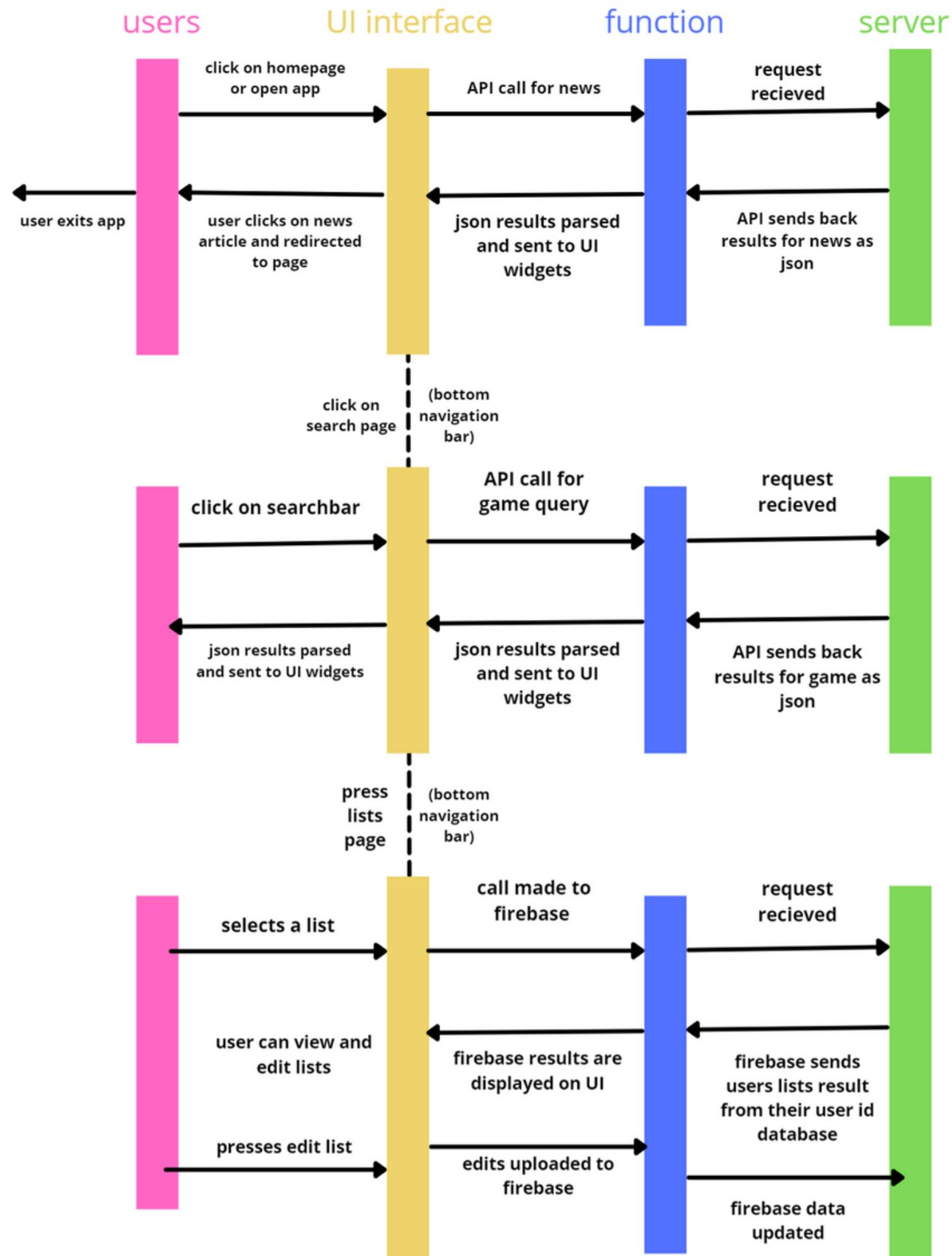




# Level 2

## Data Flow Diagram

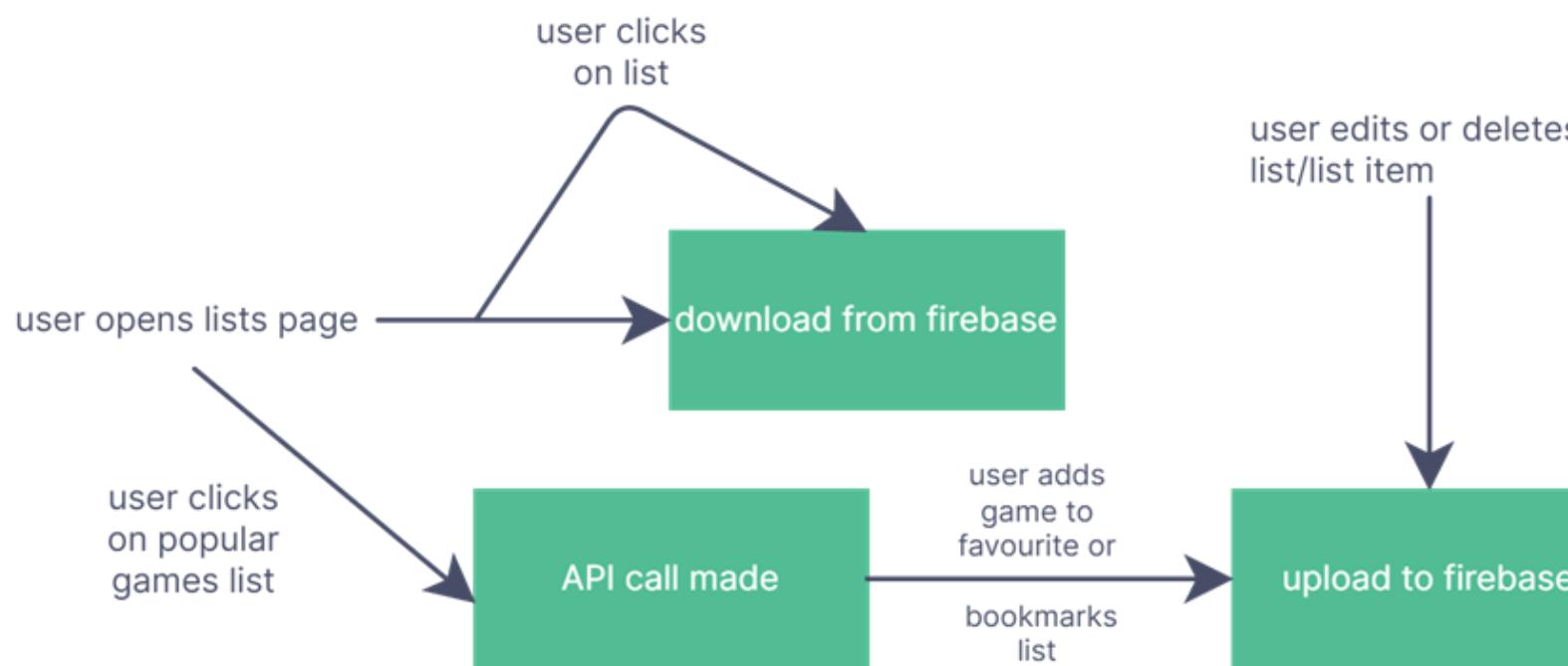
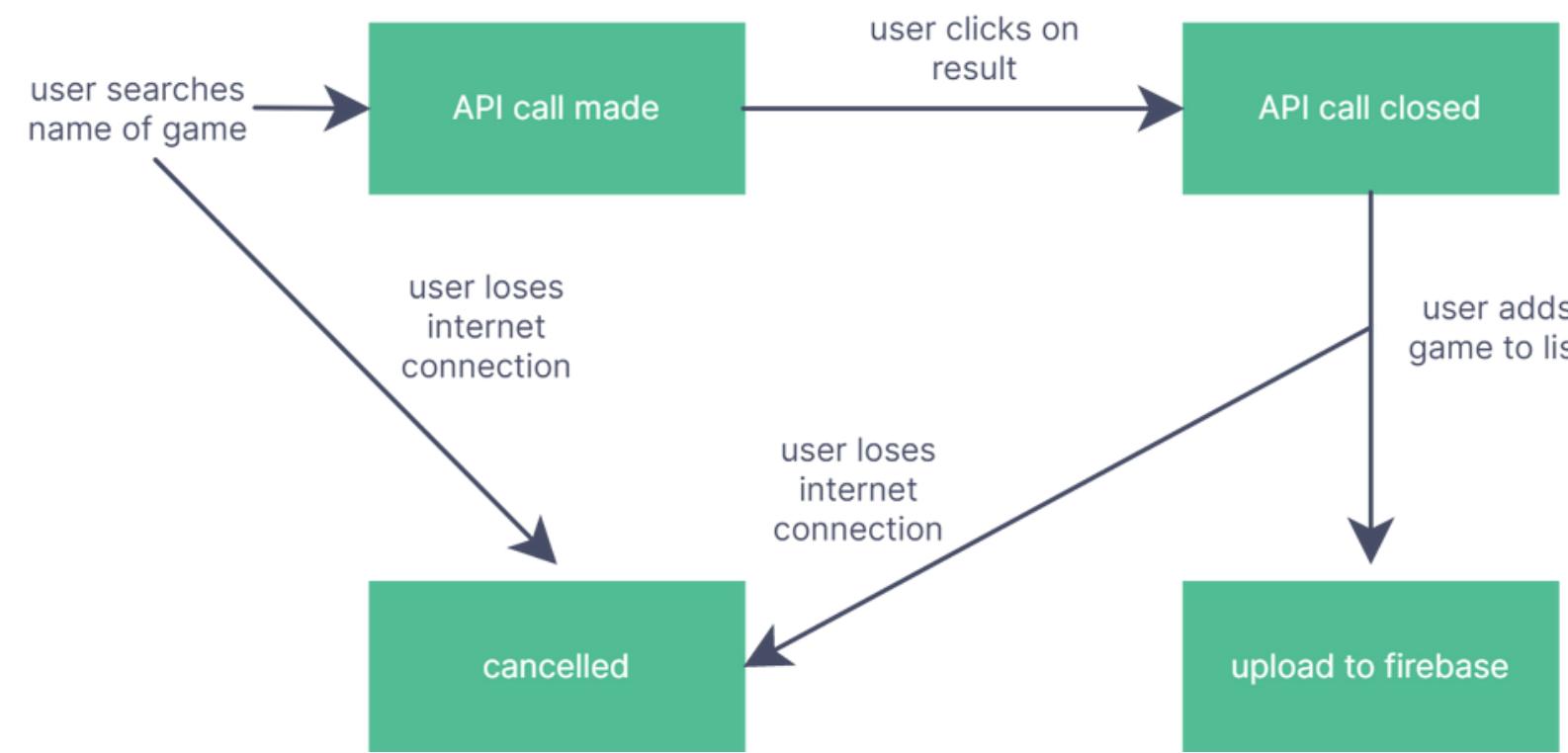
- there are 6 main data sets in the application right now
- and 5 main processes



# Sequence Diagram

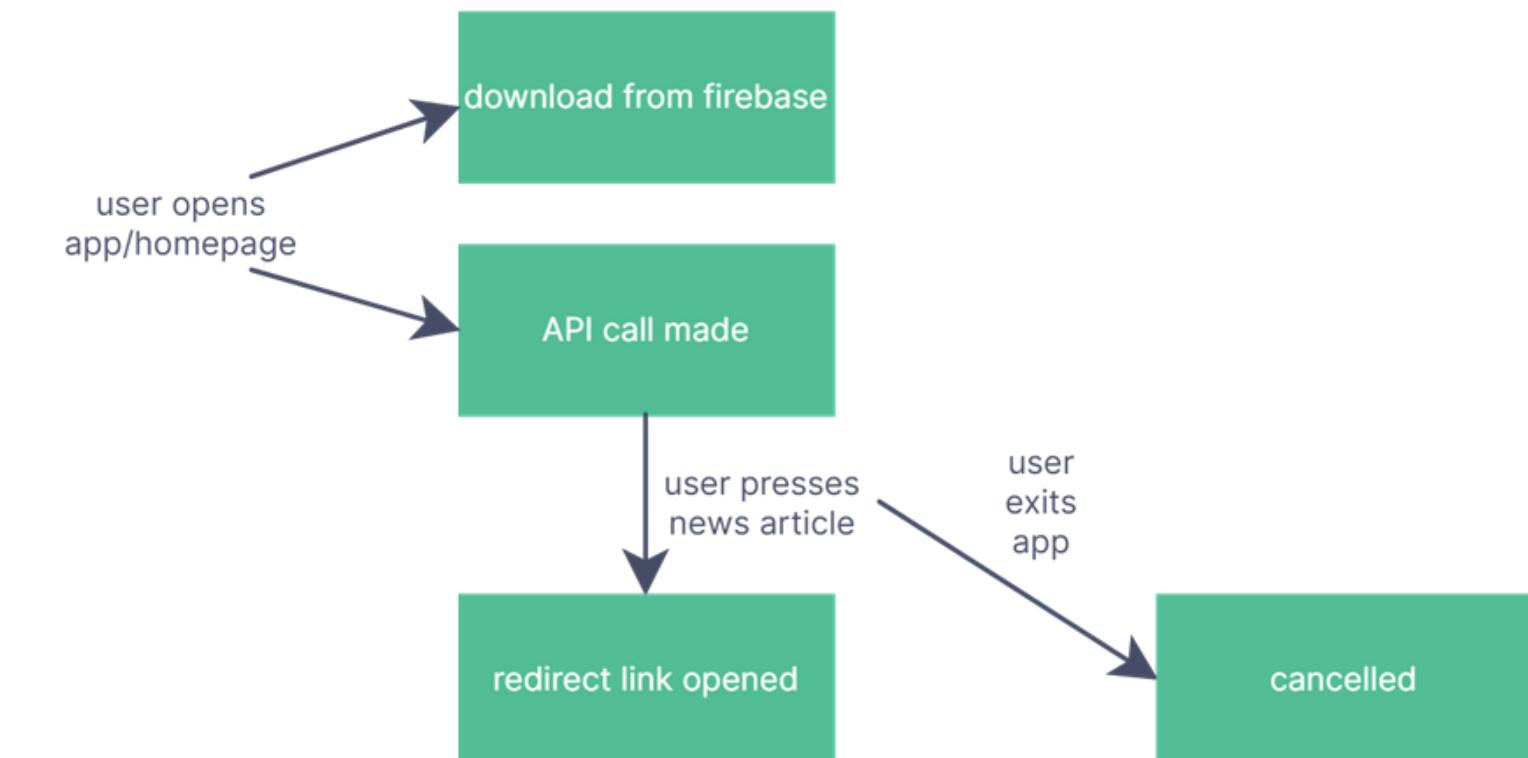
- There are 4 main interfaces
  1. users
  2. UI interface
  3. function
  4. server
- the 3 main modules currently in the app can be accessed by the bottom navigation bar (yellow , UI interface)

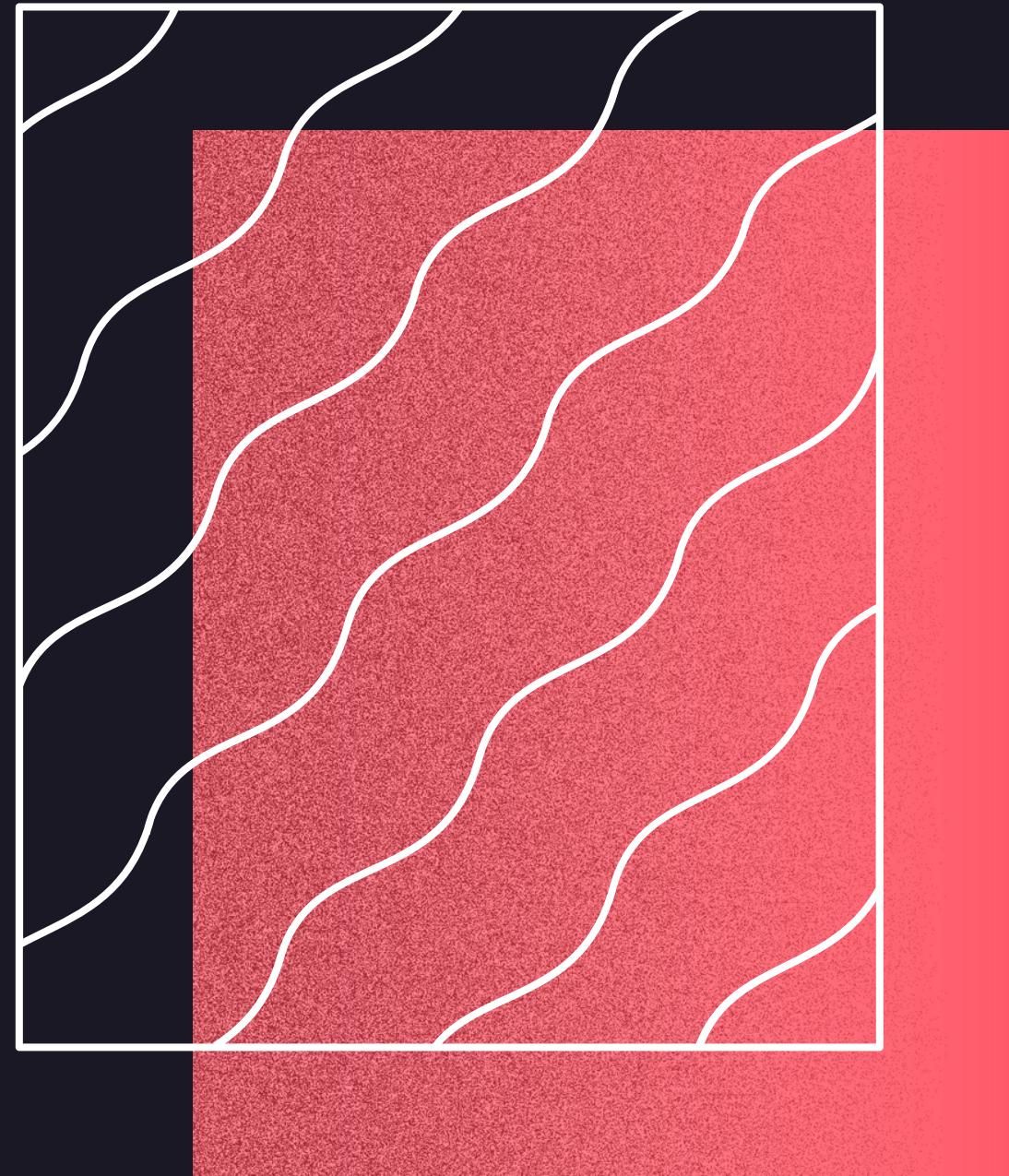
# State Transition Diagrams



**There are four main states that the classes be currently be in depending on where they are in the app**

1. API call made
2. API call closed
3. upload to firebase
4. download from firebase
5. redirect link opened
6. cancelled

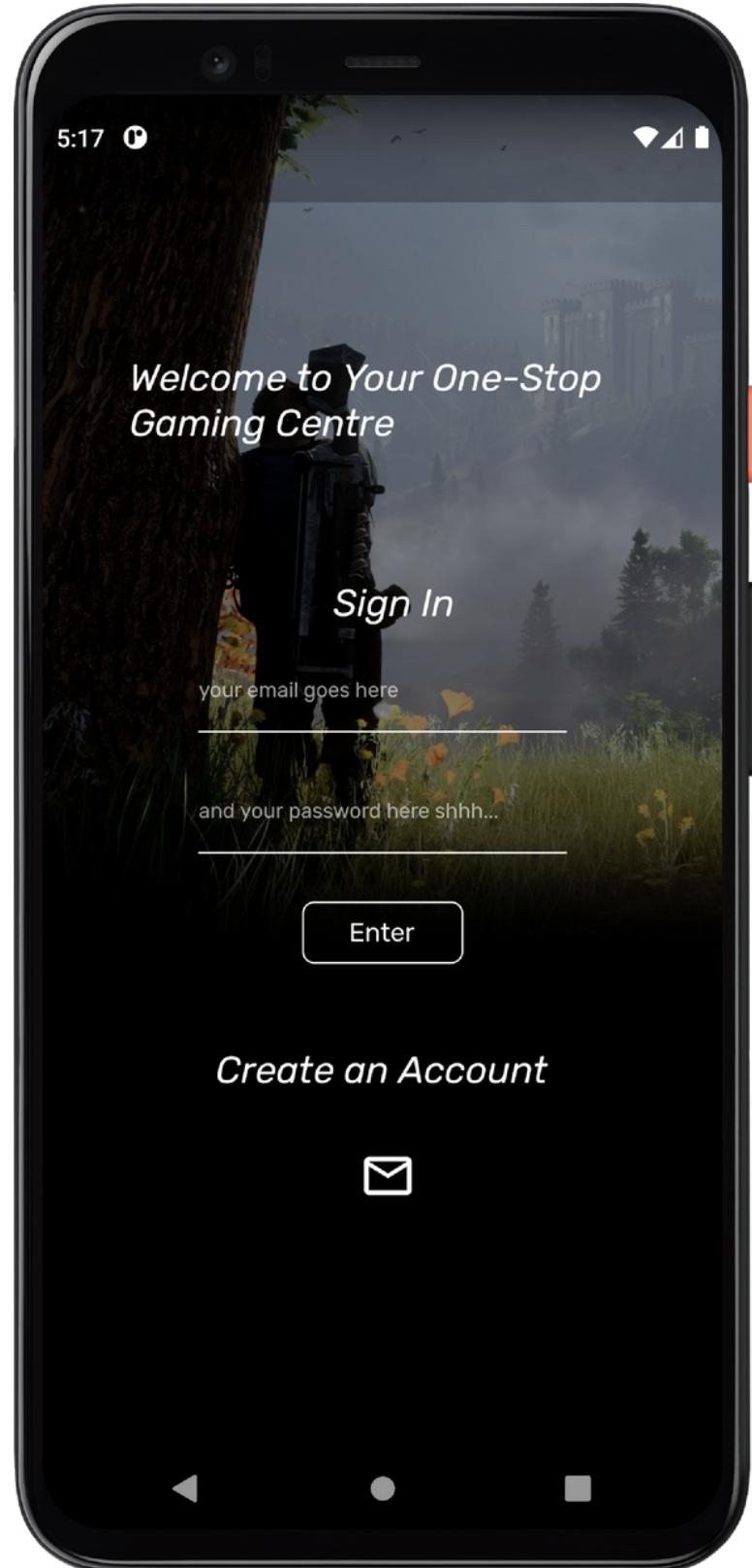




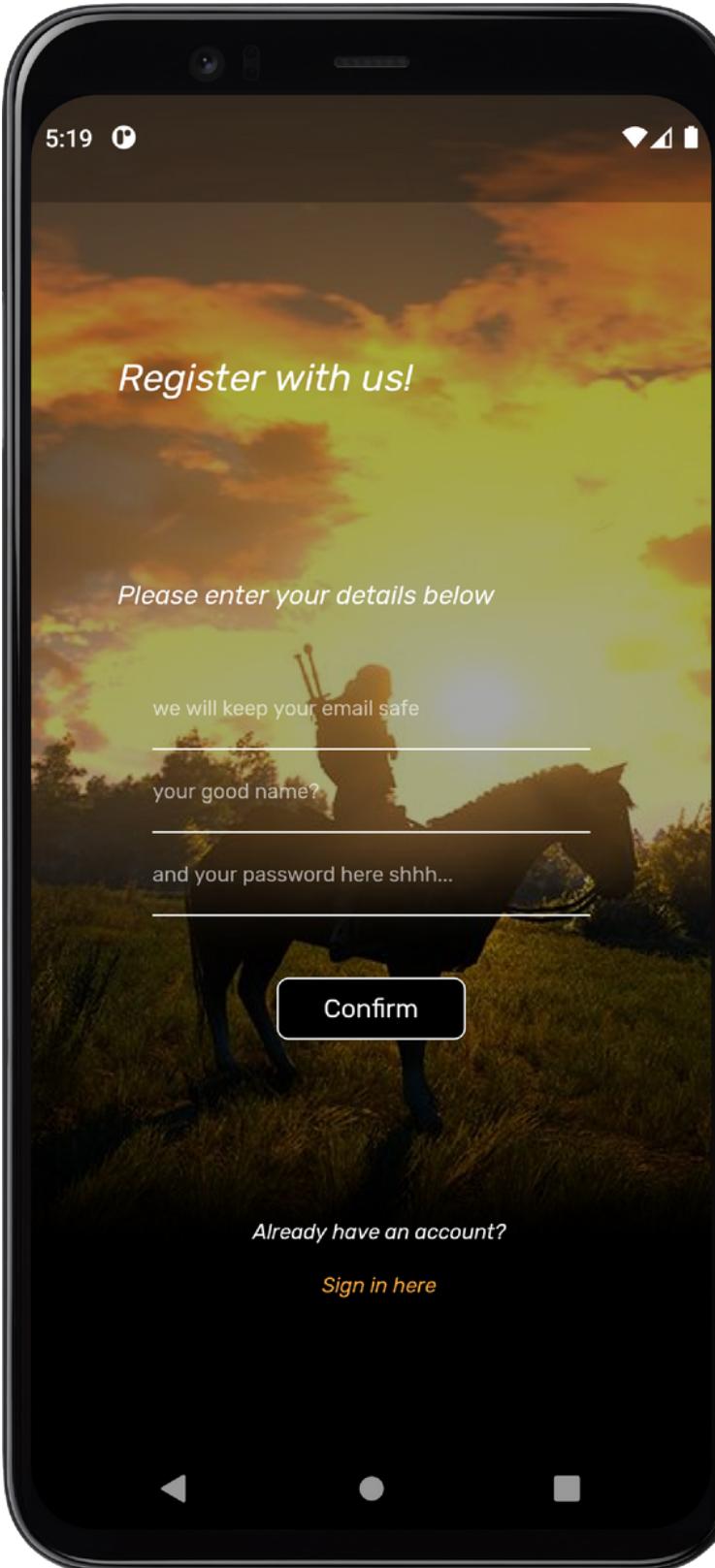
# SNAPSHOTS OF GAMETRAX

Following are the currently developed screens of the application

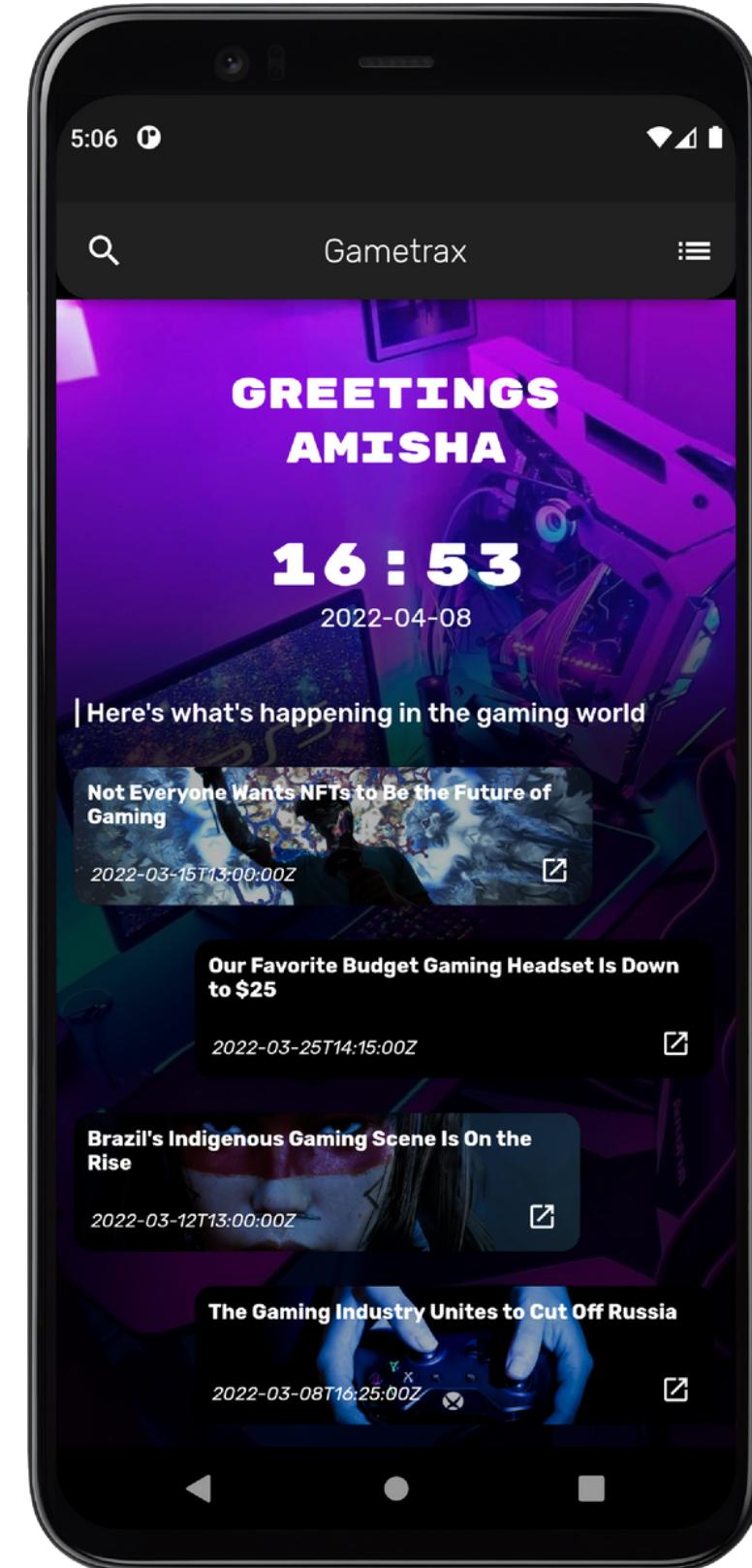
# Login Screen



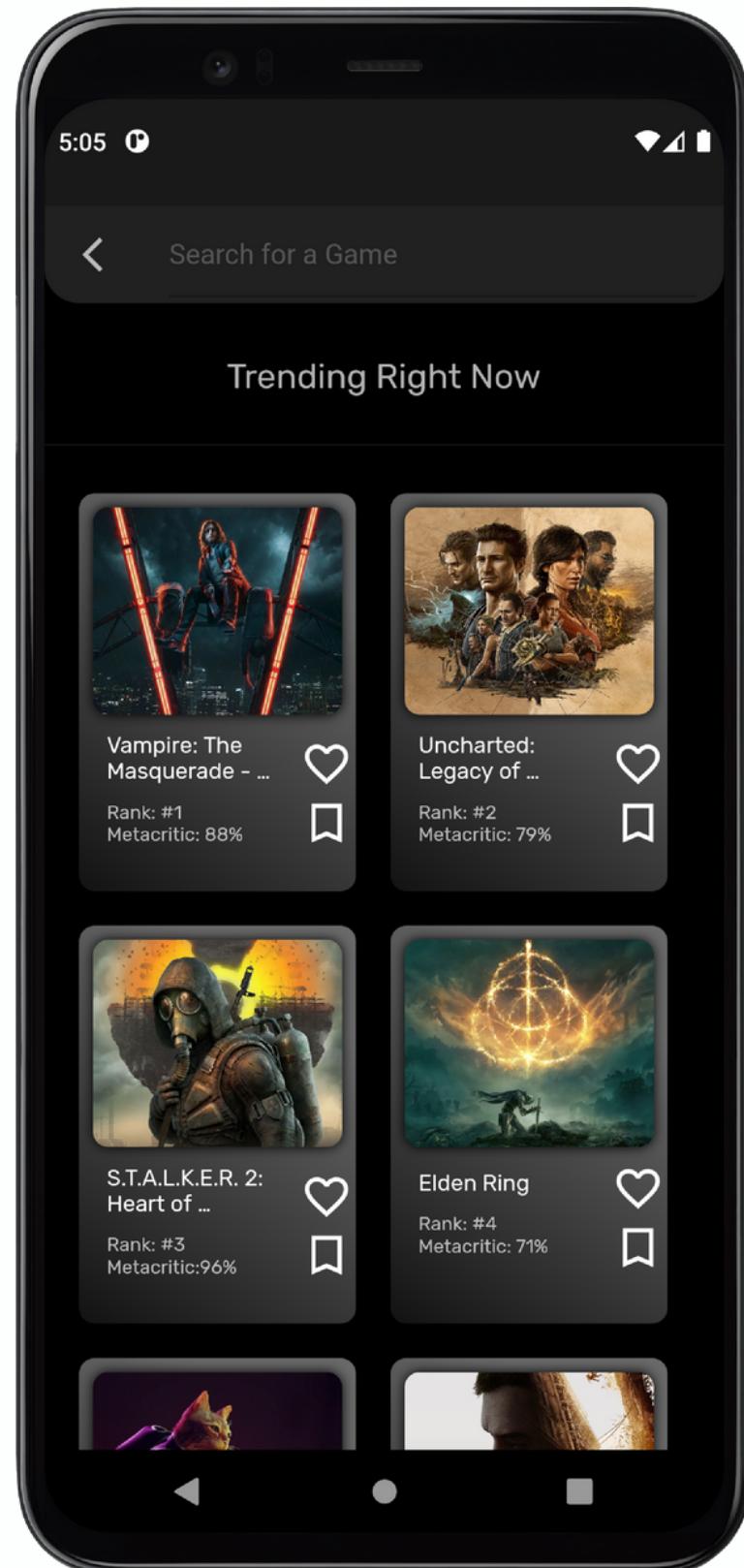
# Sign-up Screen



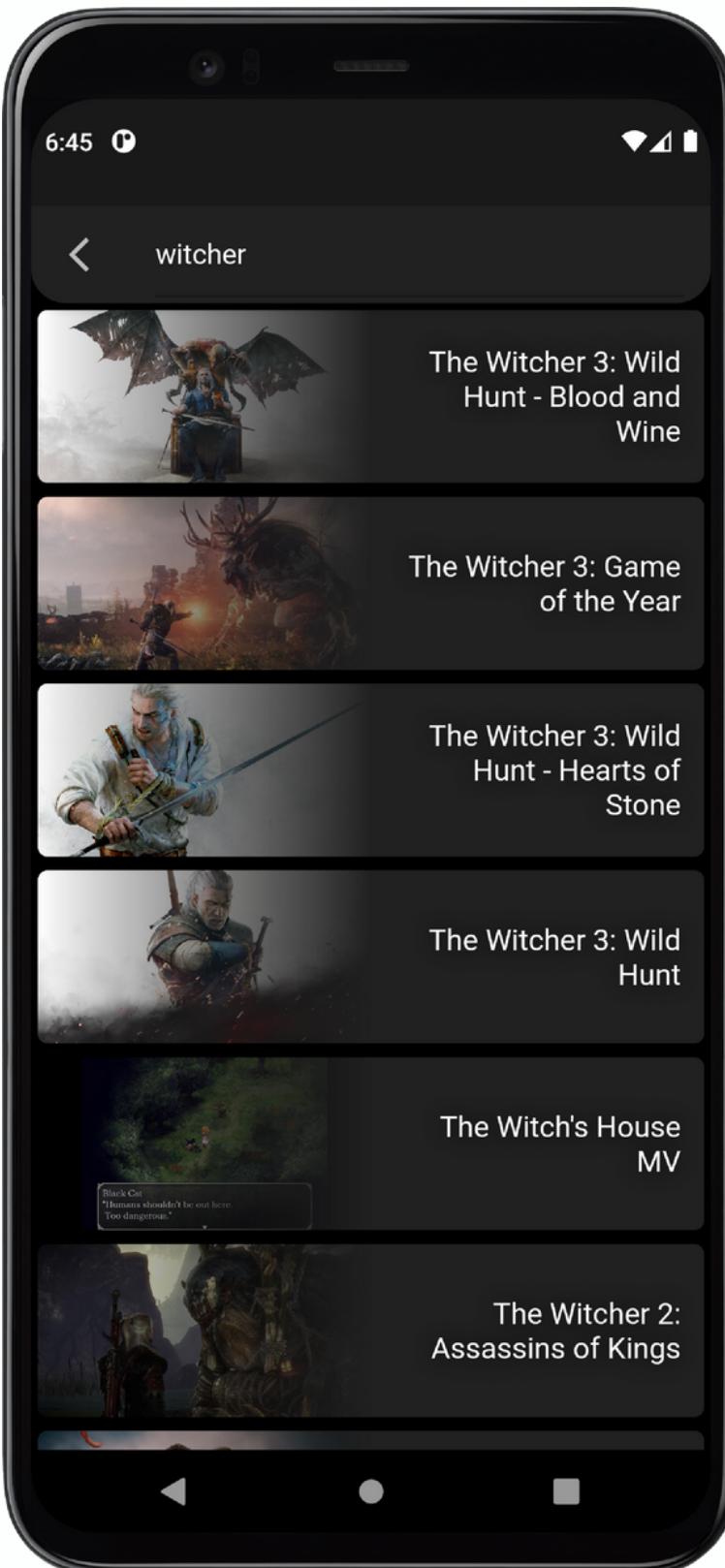
# Home Screen



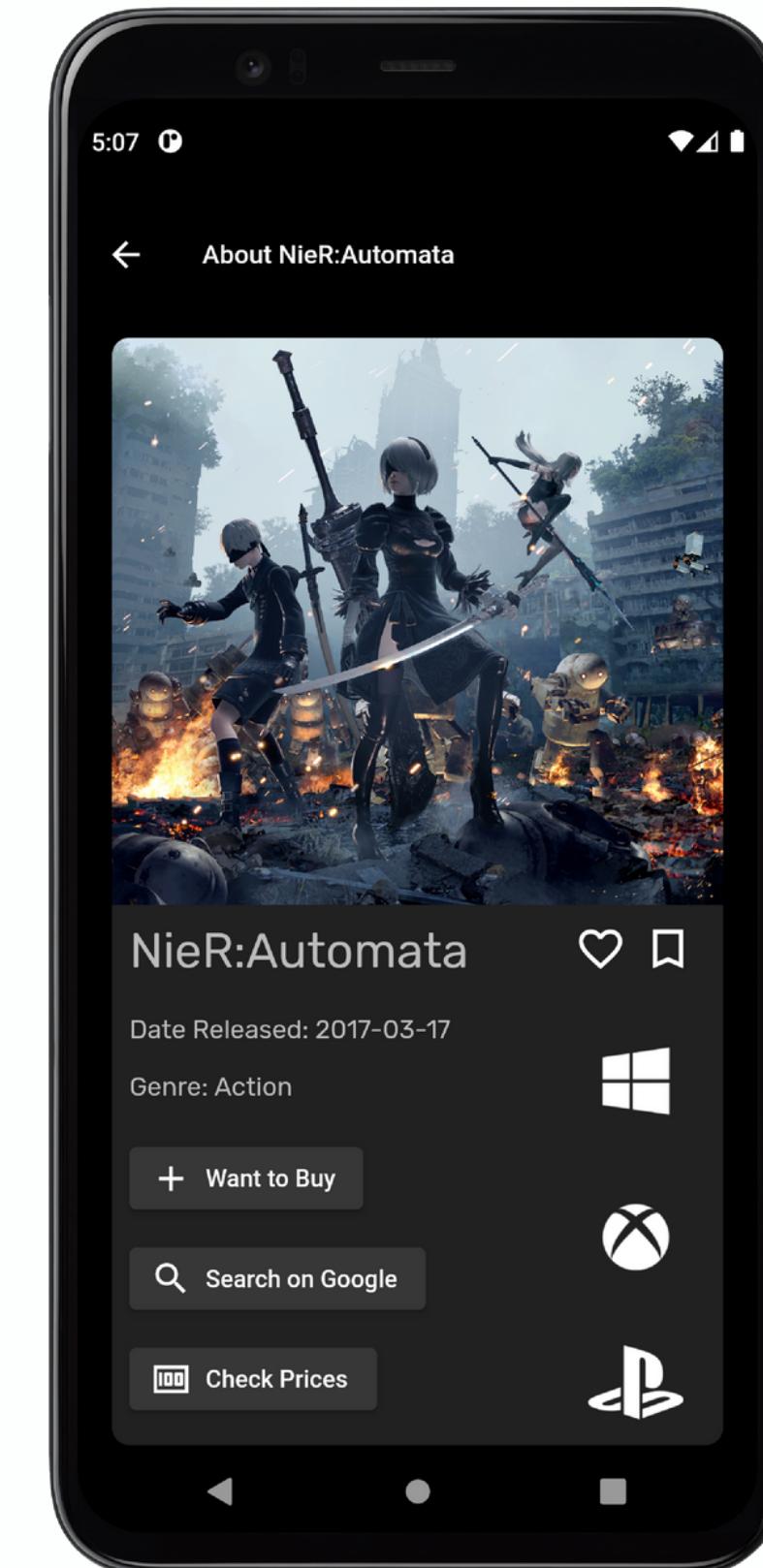
## Trending Games



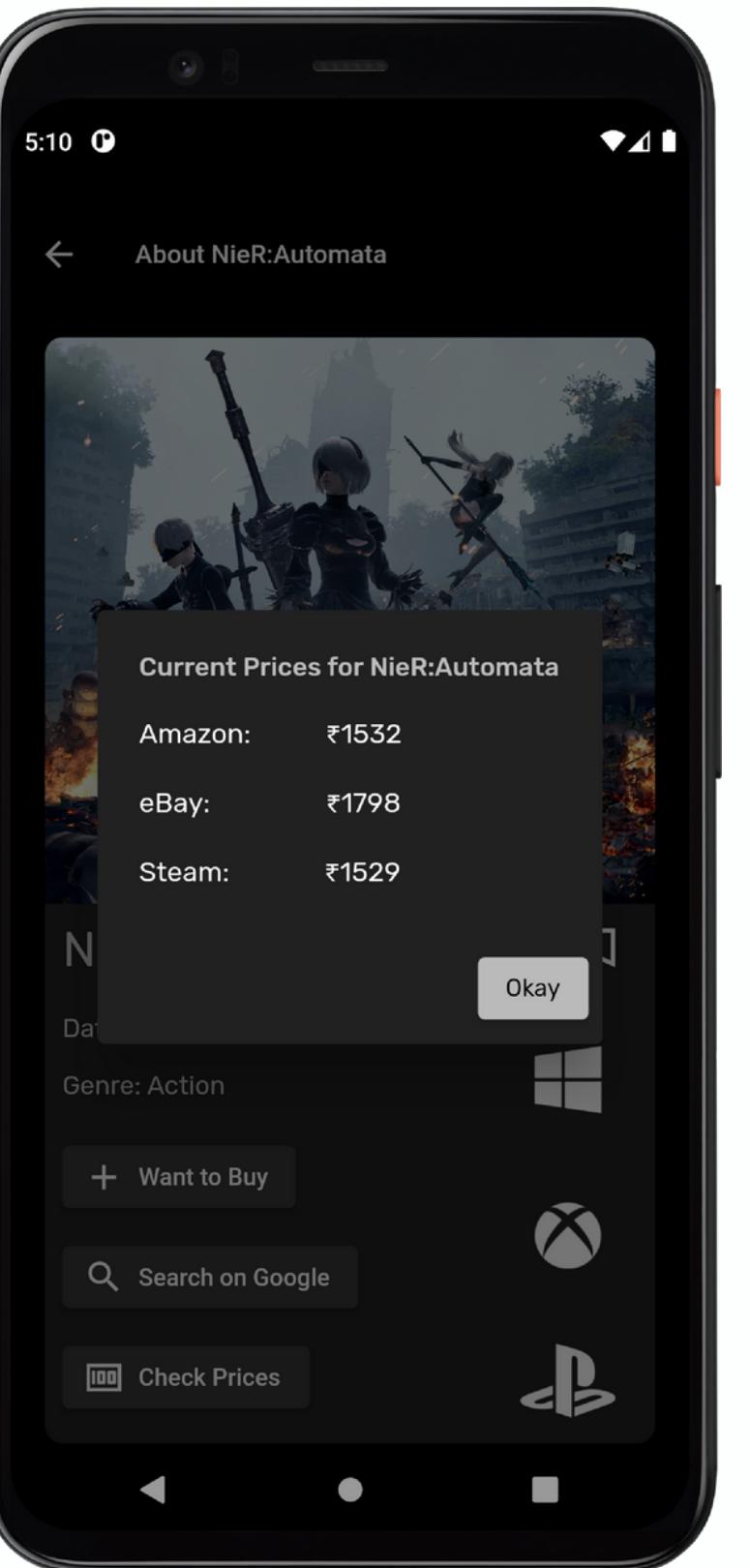
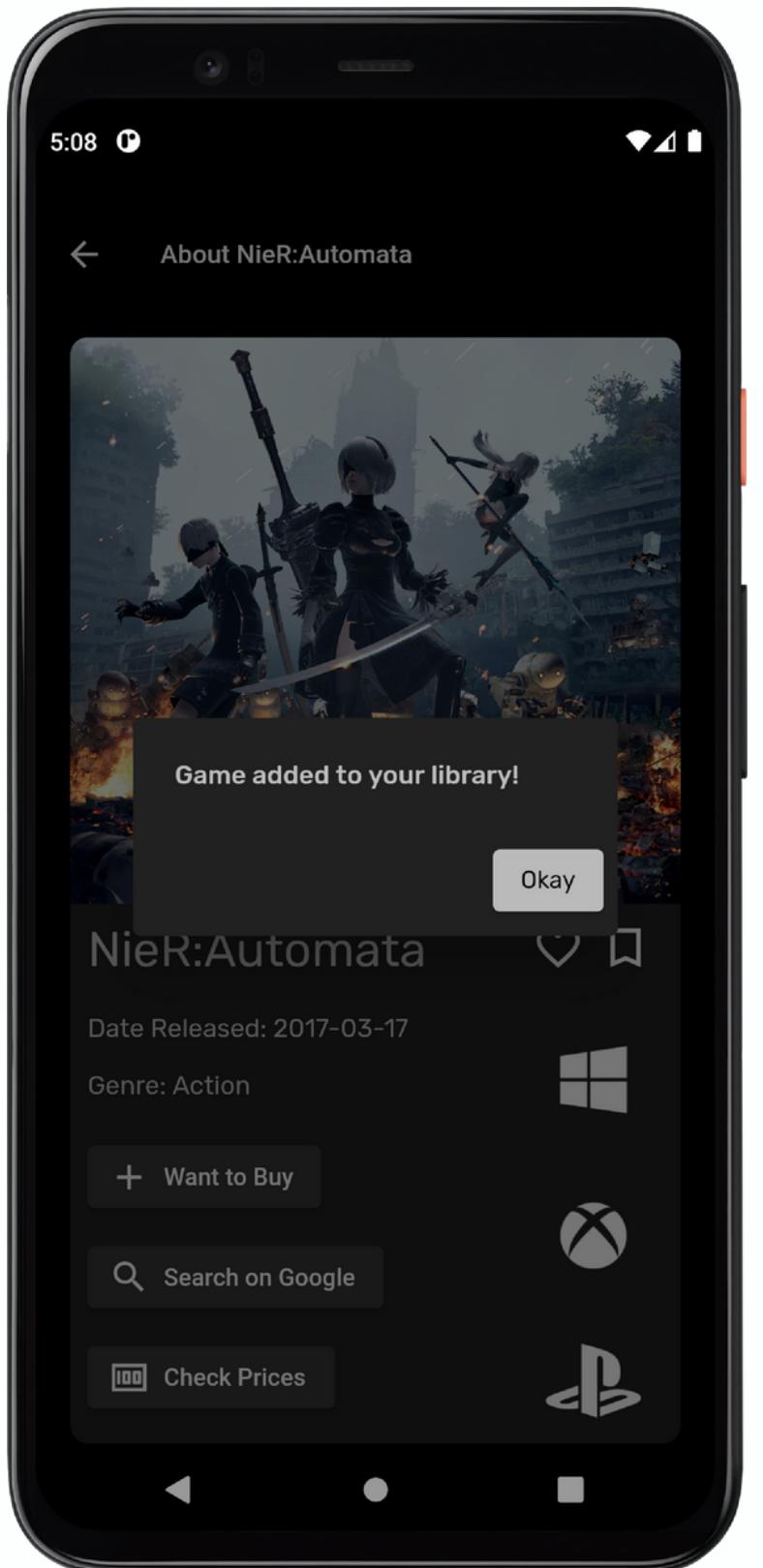
## Search for Game Screen



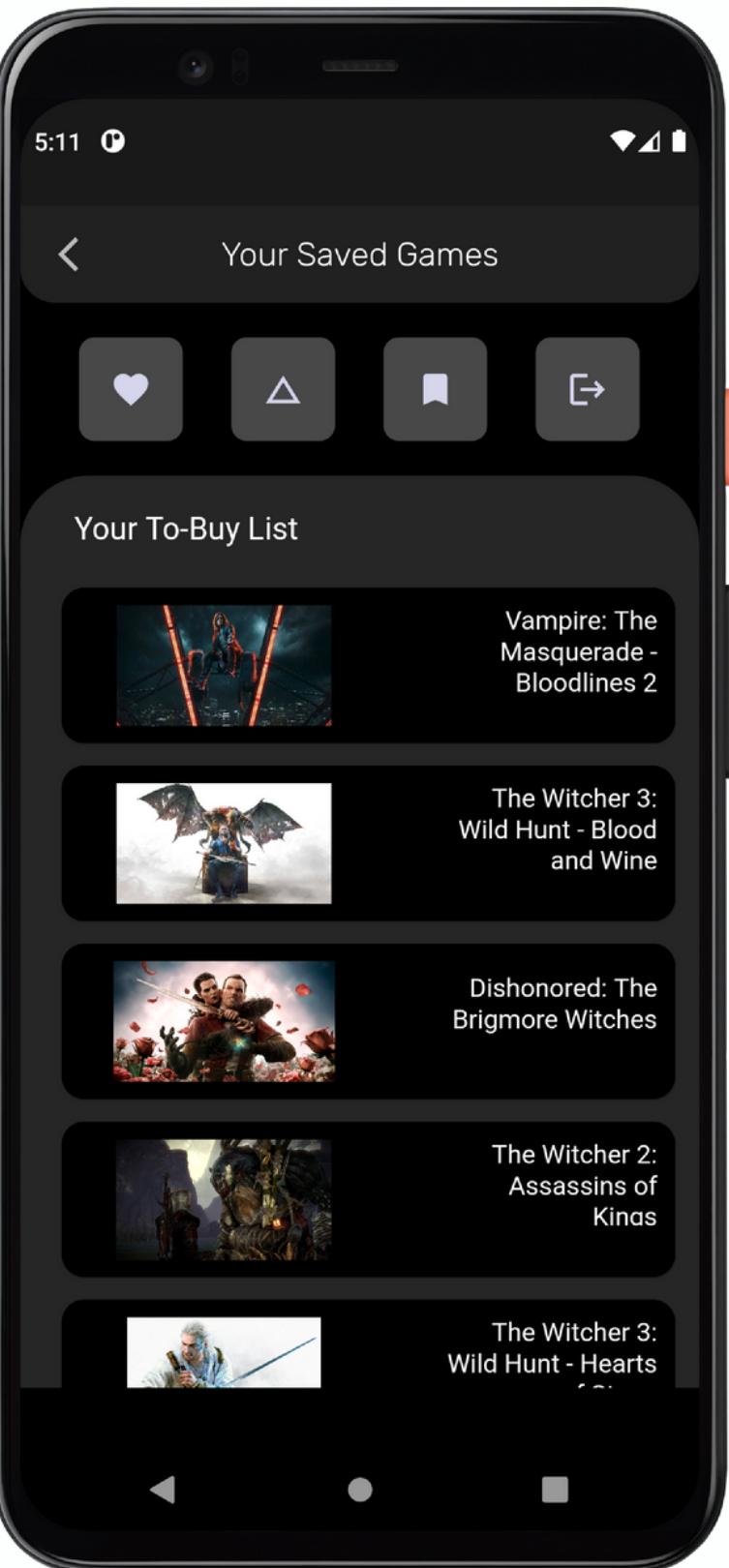
## Game Information Screen



## Information screens 2



## Lists Screen

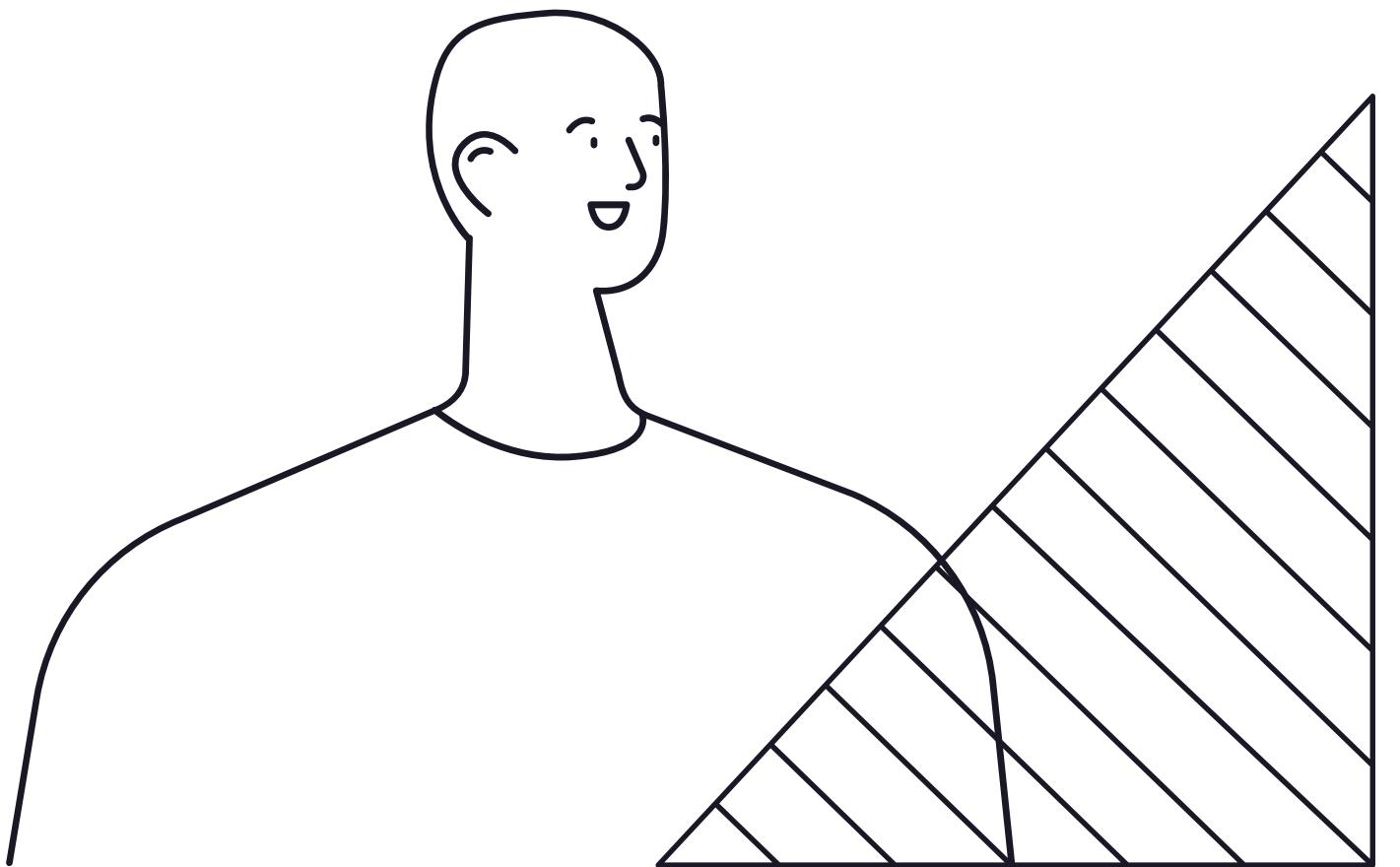


# CONCLUSION

Apps can always be made better

New features will be added as  
app develops

Gametrax will provide a lot of  
ease to gamers who find it  
difficult to stay up to date with  
their games and news



# REFERENCES

- [1] Development in Flutter (2021) 'Flutter - Beautiful Native Apps in Record Time' -<https://flutter.dev/>, (website)
- [2] Your Step-by-Step Mobile Application Testing Process  
<https://dzone.com/articles/your-step-by-step-mobile-application-testing-proce> (website)
- [3] Biessek, Alessandro (2019) 'Flutter for Beginners: An Introductory Guide to Building Cross-platform Mobile Applications with Flutter and Dart 2', pg 345, 347, (book)

# FUTURE WORK

- Add Wallpaper Option
- Add Custom Lists
- Video/Trailer player
- Upcoming Games Page
- Store all Game Achievements in one place from all platforms





THANK YOU