



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

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

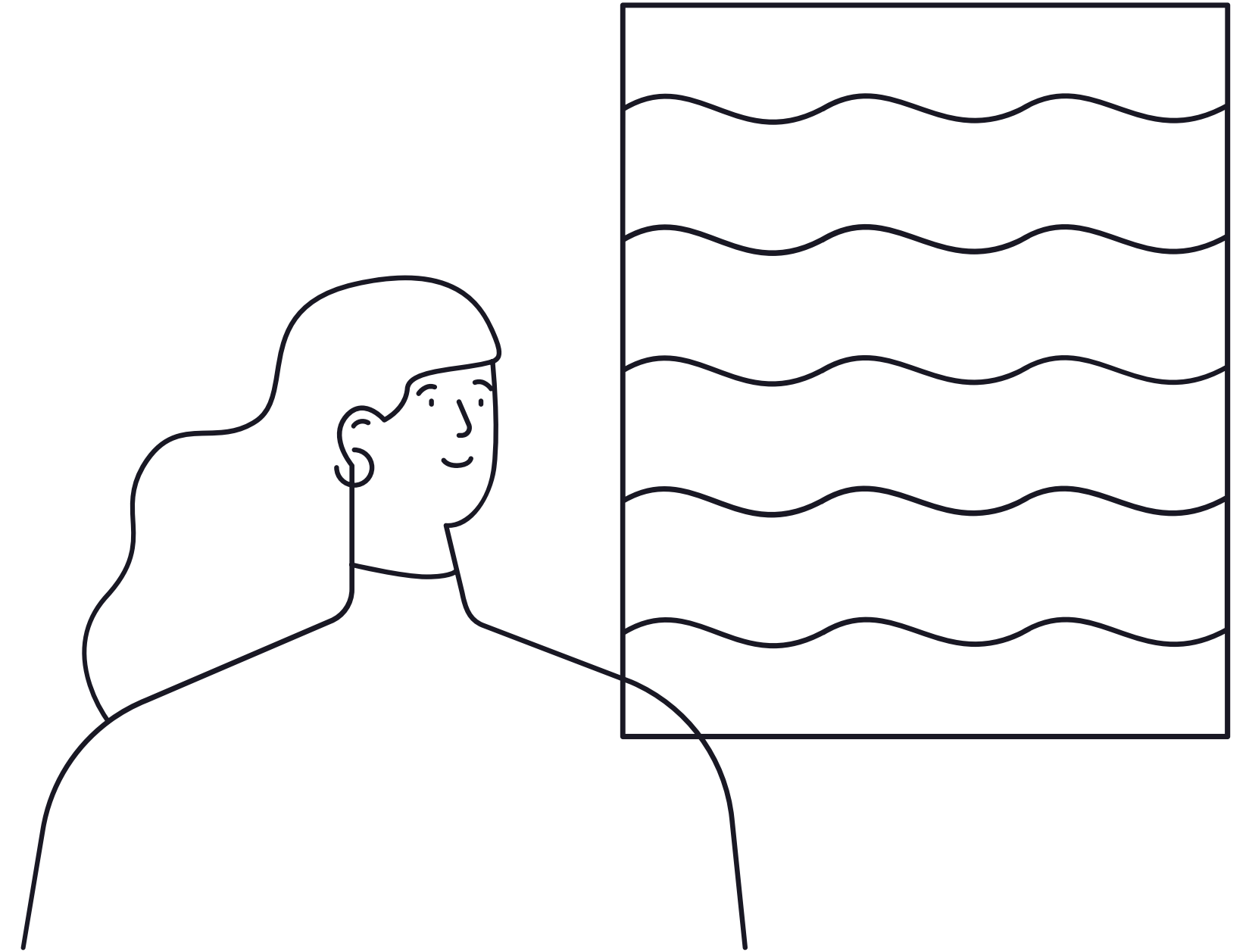
**UNDER THE SUPERVISION OF:  
DR. DILEEP KUMAR SINGH  
HEAD, JLU-SOET**

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

**Gametrax**

# Table of Contents

- Introduction
- Importance and Need of Project
- Features of Project
- Tools and Technologies
- System/User requirements
- Diagrams
- Snapshots of the app
- Conclusion
- References
- Future work



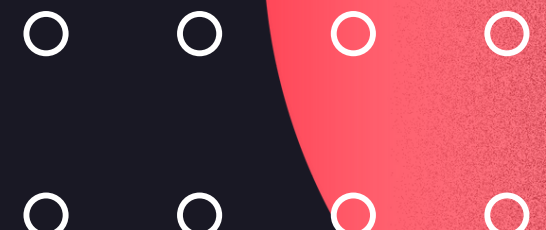
# Introduction

*Gametrax logo*

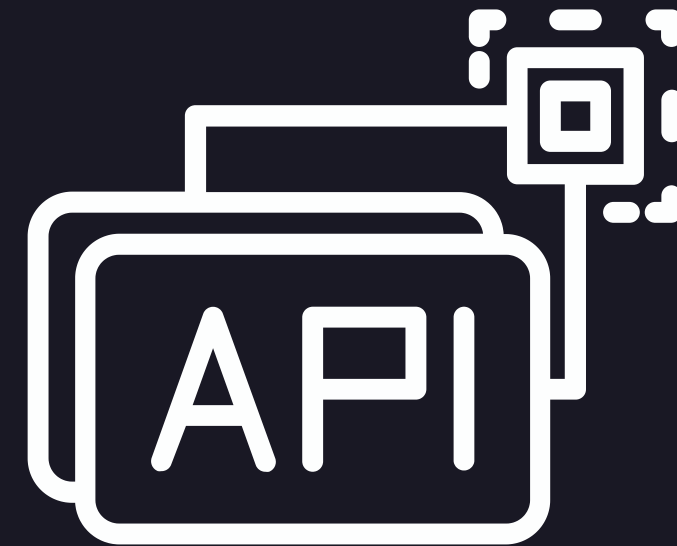


**GAMETRAX IS AN APP FOR HELPING  
GAMERS KEEP TRACK OF THEIR GAMES  
AND STAY UP TO DATE WITH GAMING  
NEWS AND INFORMATION.**

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



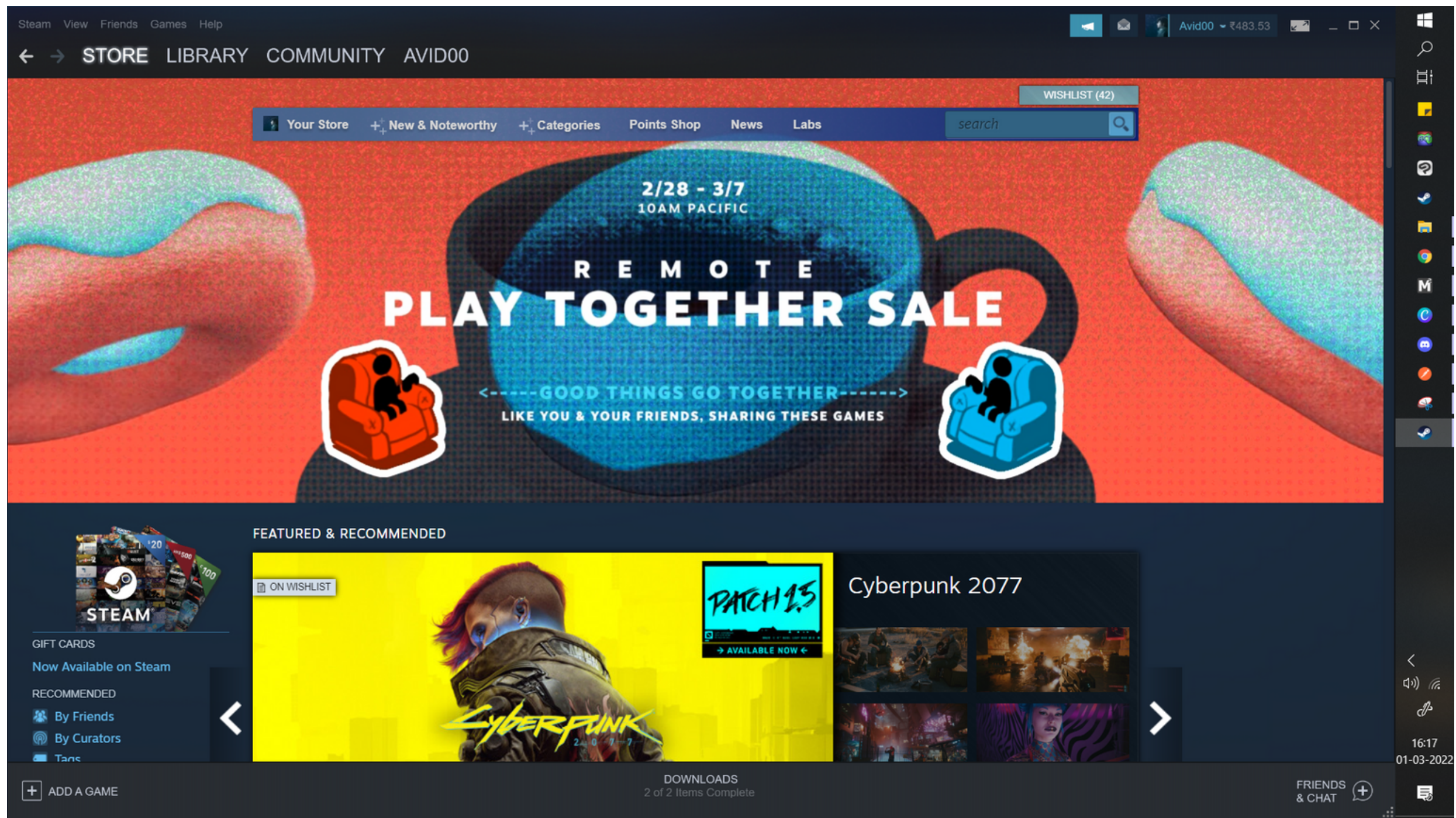
# EXISTING SYSTEMS



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

```
rawg / https://rawg.io/api/games?key=e8bfd125c87243ad941d54f7933bf318
GET https://rawg.io/api/games?key=e8bfd125c87243ad941d54f7933bf318&page_size=20&search=witcher
Params Authorization Headers (8) Body Pre-request Script Tests Settings
Body Cookies Headers (19) Test Results Status: 200 OK Time: 986 ms Size: 116.28 KB
Pretty Raw Preview Visualize JSON
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 ]
```

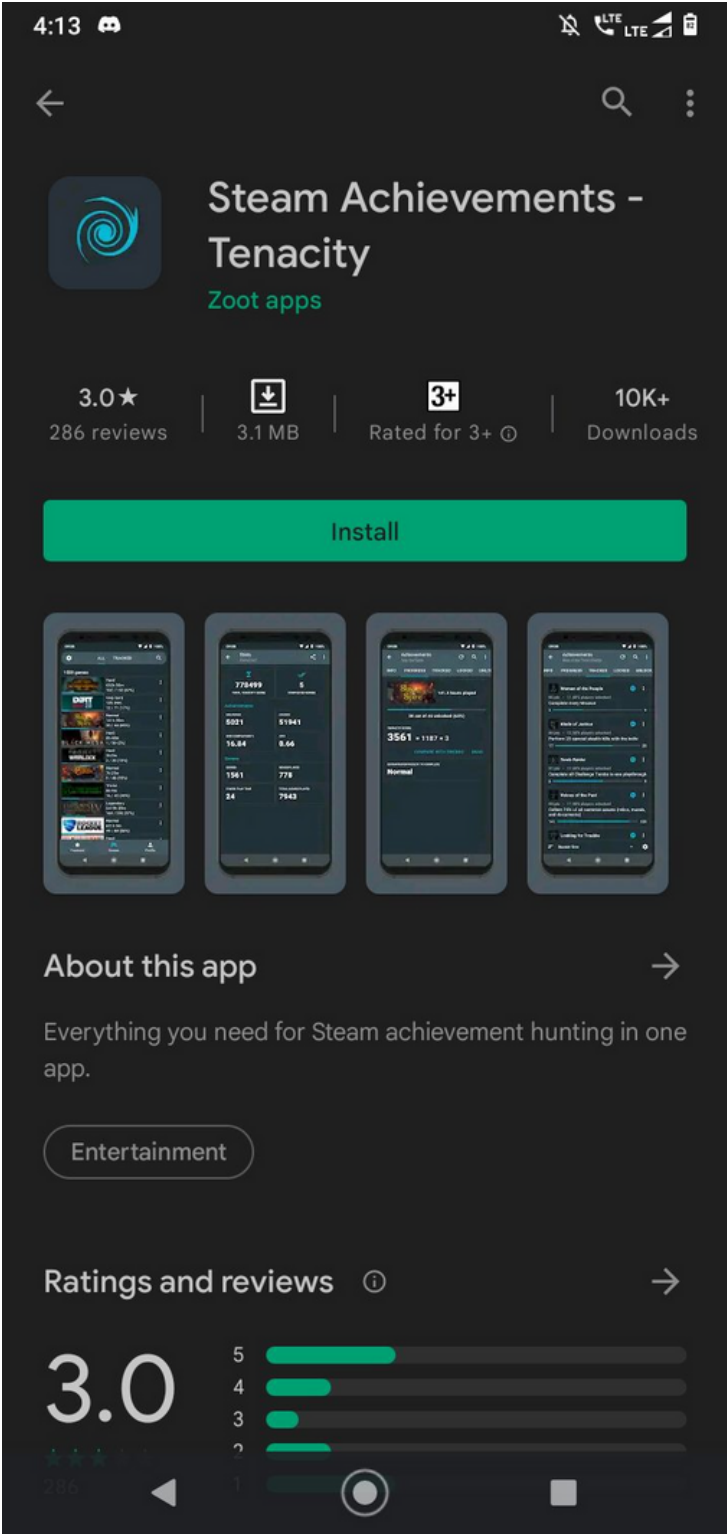




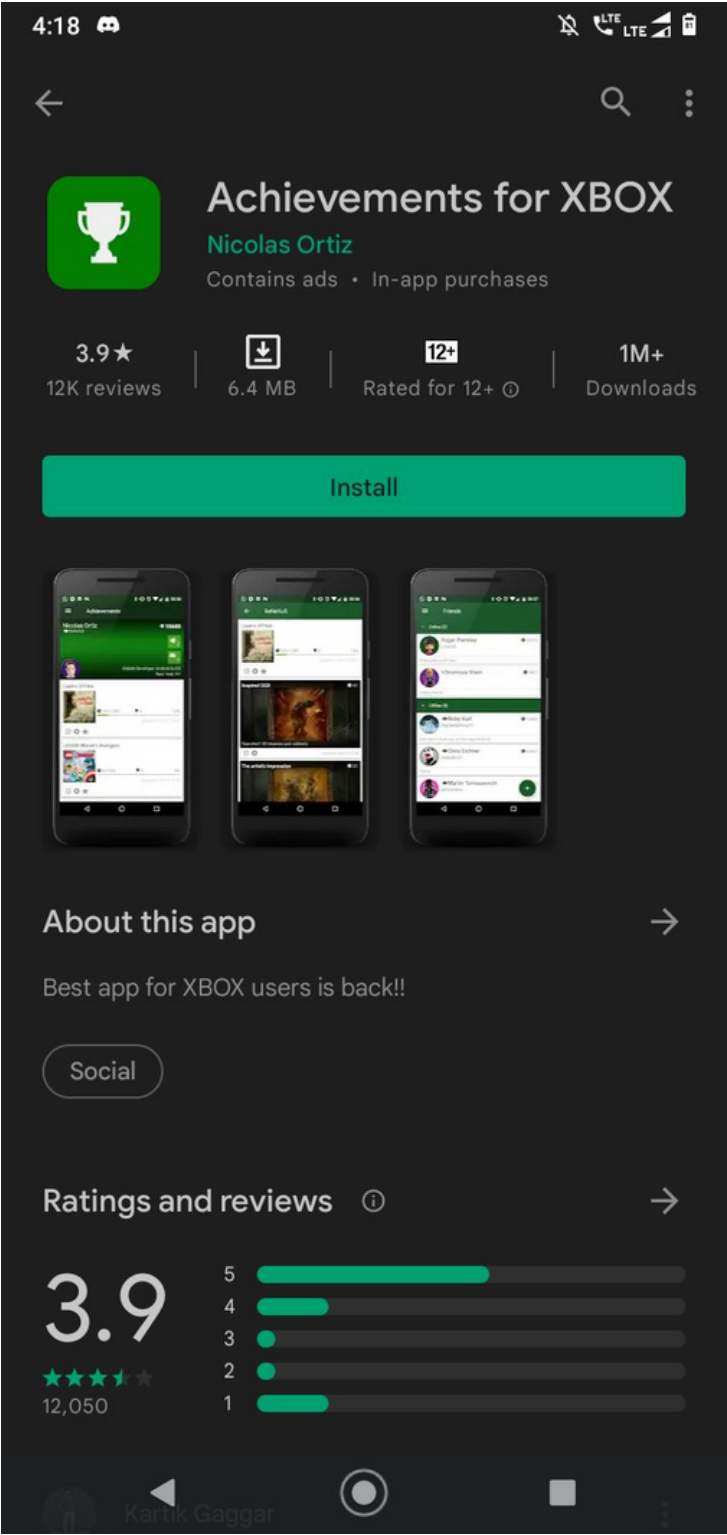
need to go to steam, other  
DRM or google to check  
prices for a game



# Tracking Apps

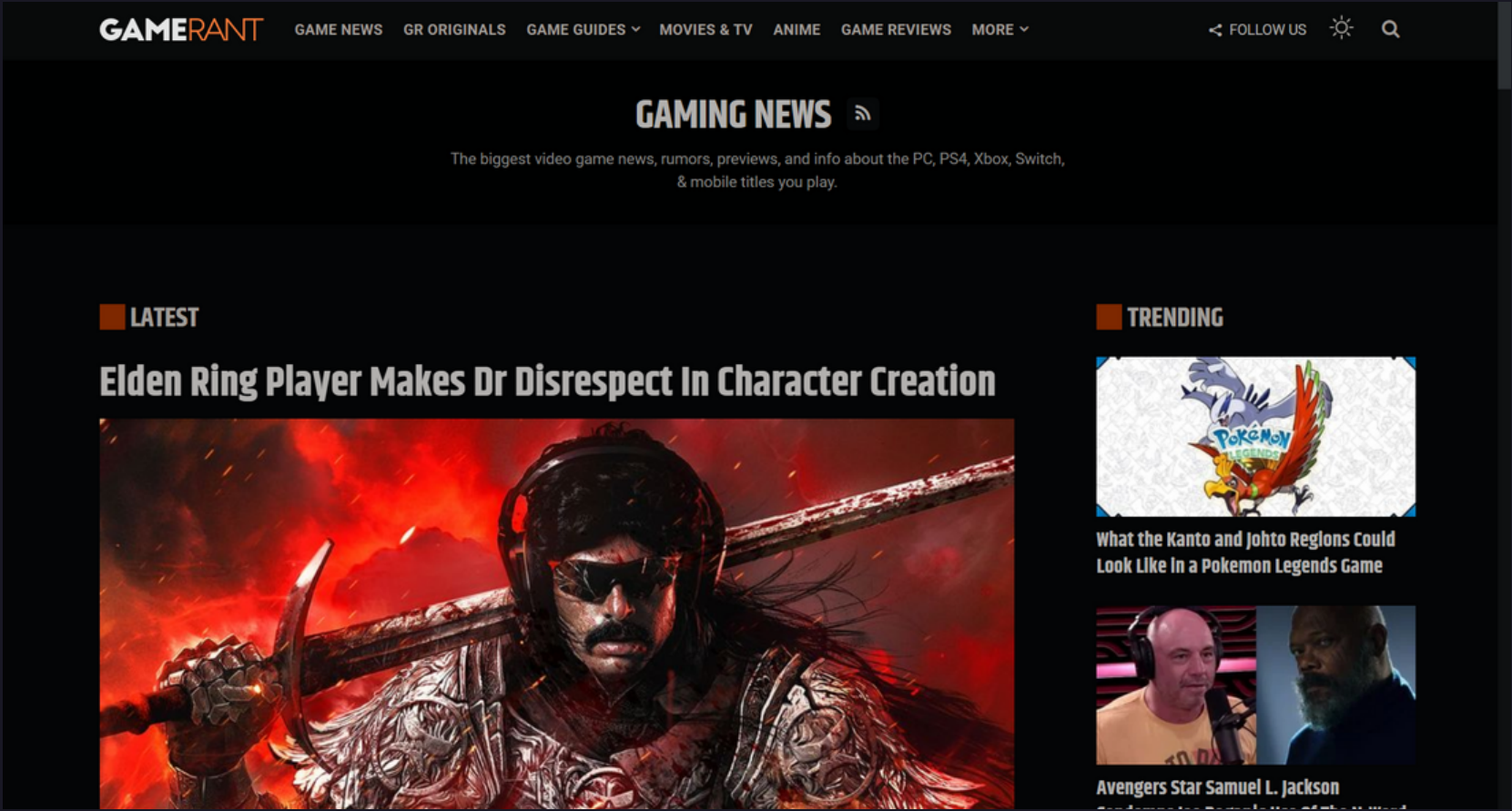


tracks only steam  
achievements



tracks only xbox  
achievements

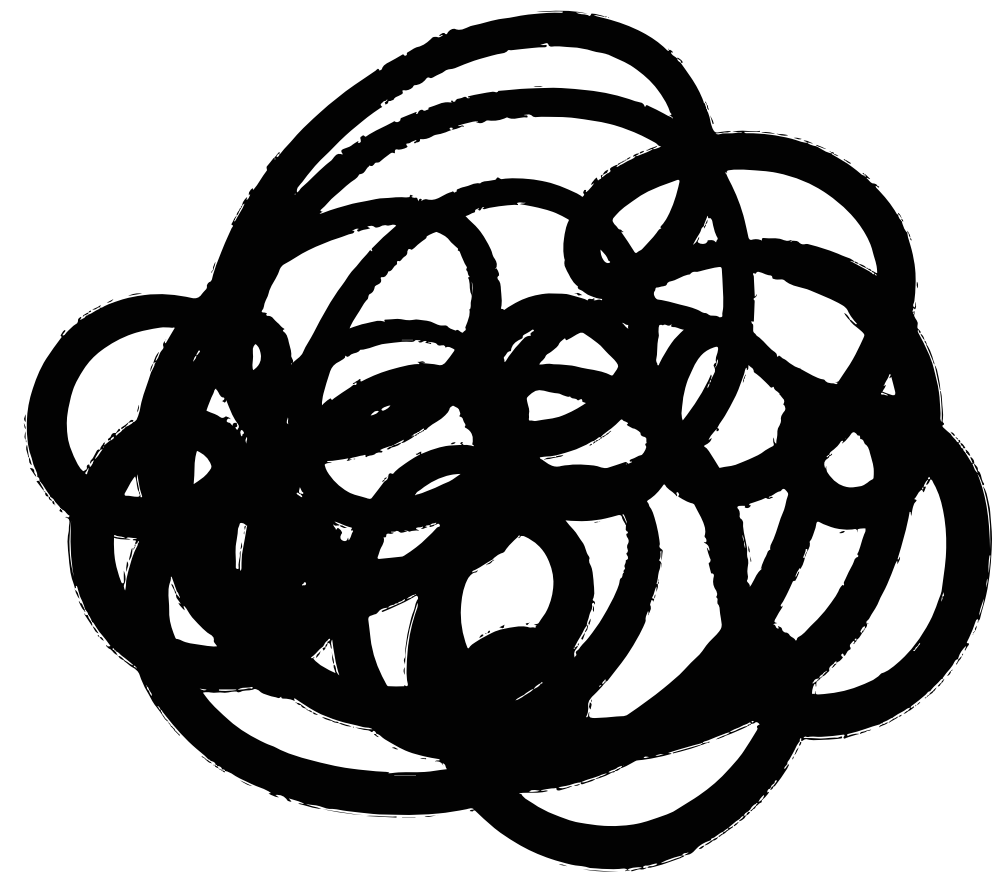
# News Websites

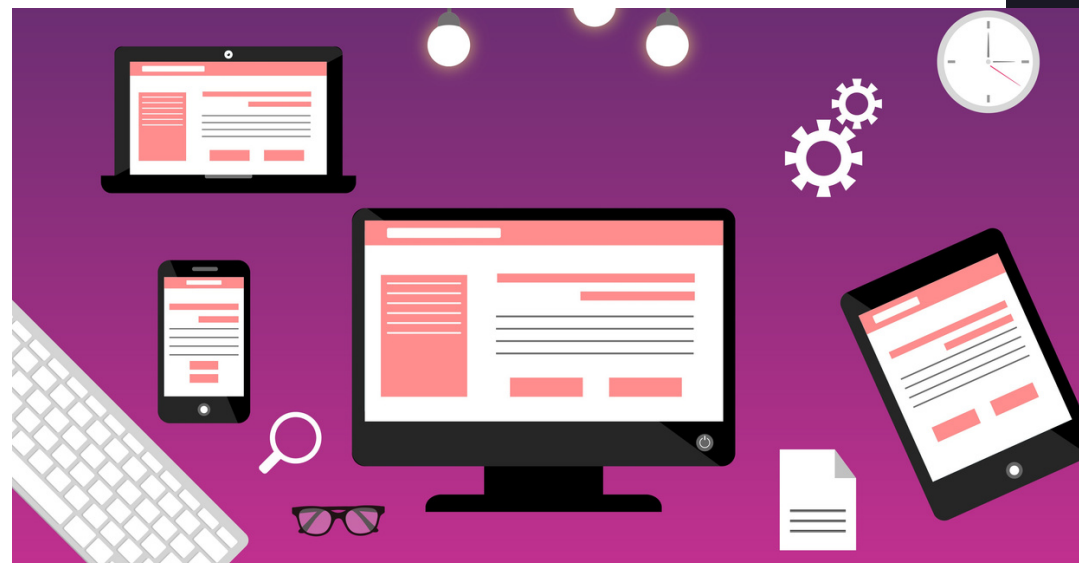
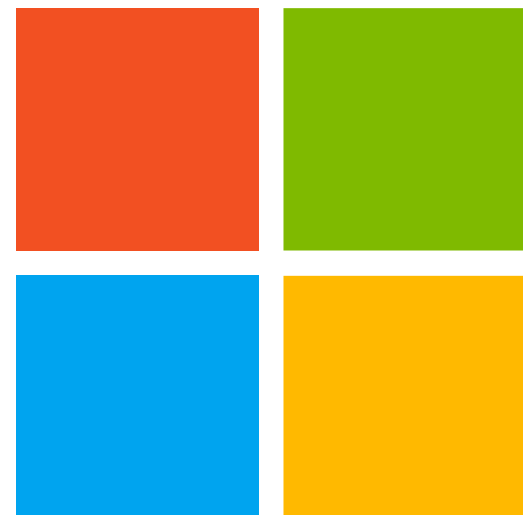


No apps dedicated for  
gaming news, only websites

# 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





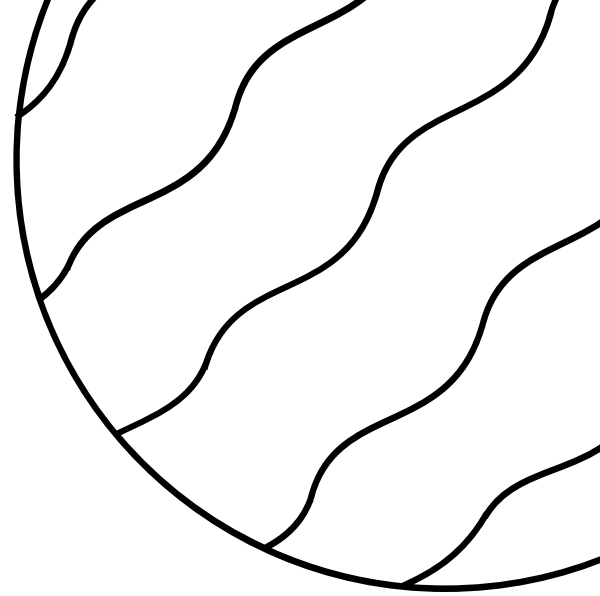
# SO MUCH INFORMATION TODAY

- 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

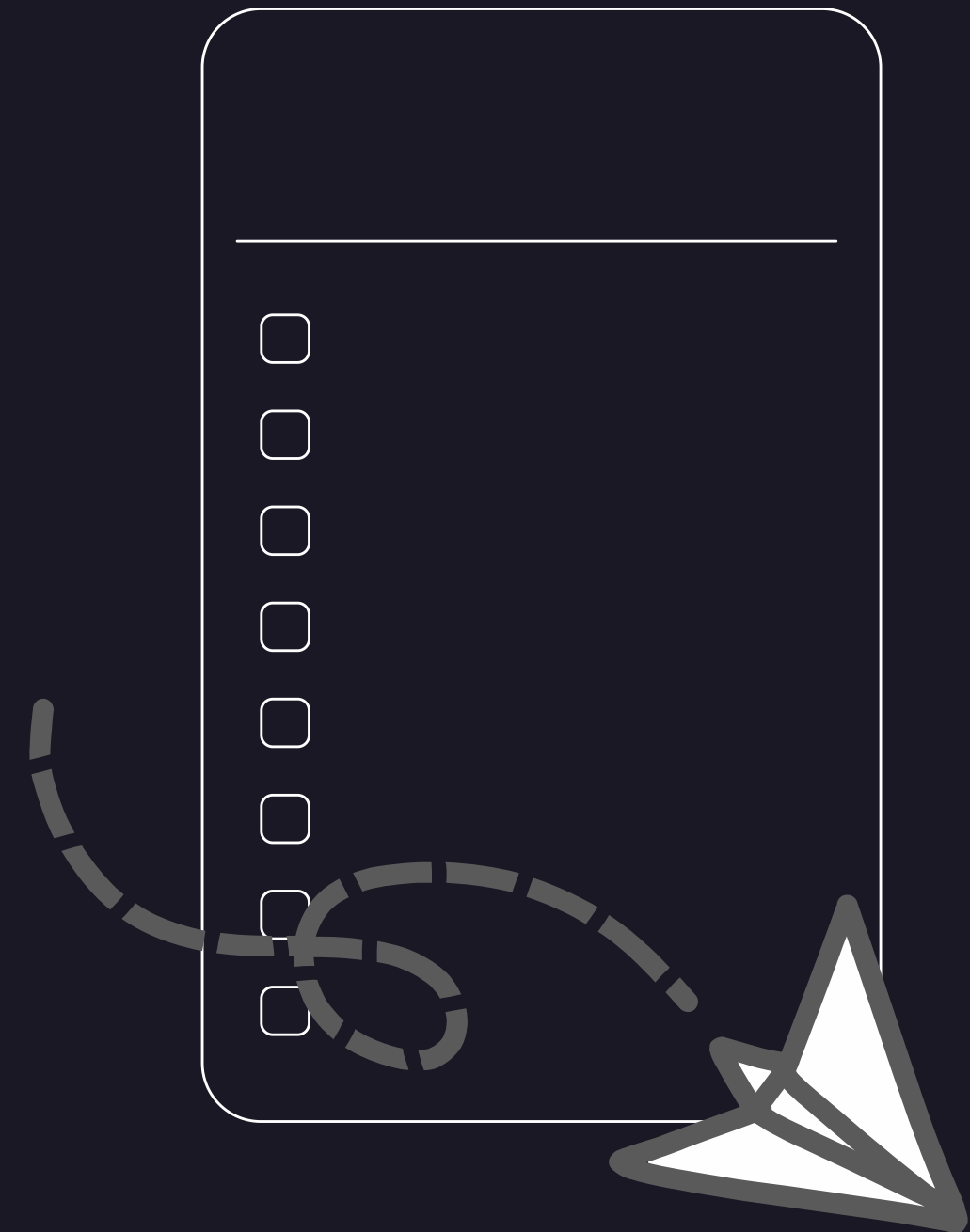




# FEATURES OF PROJECT

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](#)

## 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


Home

Reviews


Vivaldi 


 Wishlist


 My library


 People you follow

New Releases


 Last 30 days


 This week


 Next week

 31 Release calendar

Top

 Best of the year

 Popular in 2020


 All time top 250


All Games


Browse


Popular in 2020

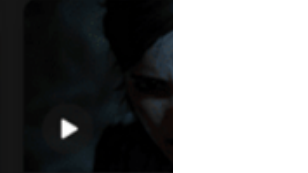
Order by: Popularity Platforms





Cyberpunk 2077   
+ 3,789




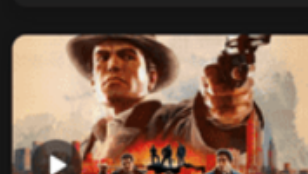
Fall Guys: Ultimate Knockout   
+ 4,133




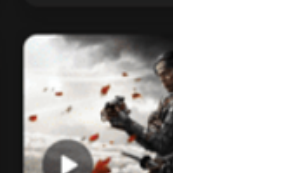
The Last of Us Part II   
+ 2,914




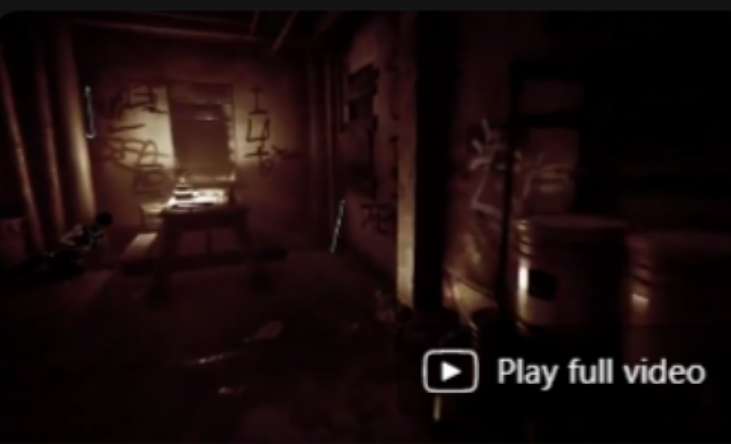
Black Mesa   
+ 2,543






Mafia II: Definitive Edition   
+ 2,555




Ghost of Tsushima   
+ 1,853





Play full video



**Vampire: The Masquerade - Bloodlines 2** 

+ 485






Release date: Dec 31, 2022

Genres: [Action, RPG](#)

Chart: [#2 Top 2022](#)

Show more like this 




# newsAPI

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

| Here are some updates for you

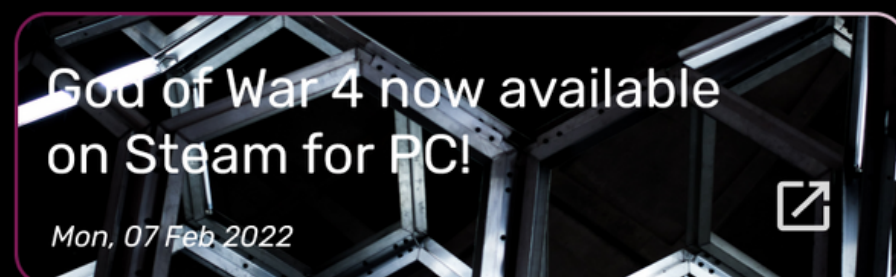
Dragon Age 4 delayed till  
2023

Mon, 07 Feb 2022

A news card with a dark background and a glowing sword. The text "Dragon Age 4 delayed till 2023" is in white. Below it, the date "Mon, 07 Feb 2022" is in a smaller font. A share icon is in the bottom right corner.

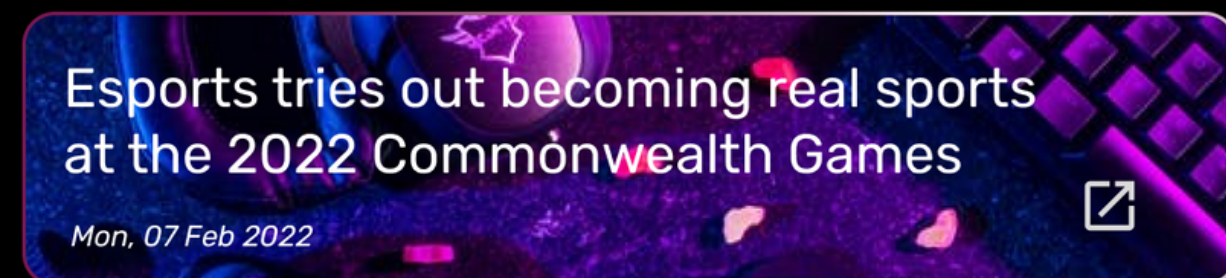
God of War 4 now available  
on Steam for PC!

Mon, 07 Feb 2022

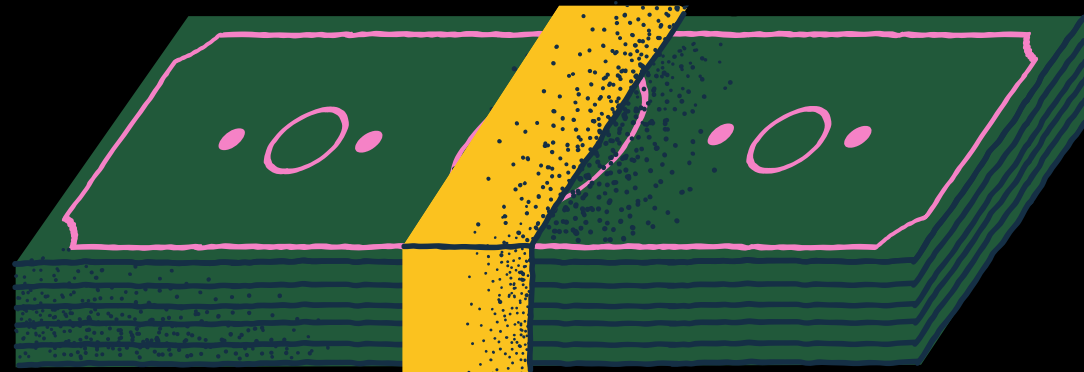
A news card with a background of a metallic structure. The text "God of War 4 now available on Steam for PC!" is in white. Below it, the date "Mon, 07 Feb 2022" is in a smaller font. A share icon is in the bottom right corner.

Esports tries out becoming real sports  
at the 2022 Commonwealth Games

Mon, 07 Feb 2022

A news card with a background of a game controller and a keyboard. The text "Esports tries out becoming real sports at the 2022 Commonwealth Games" is in white. Below it, the date "Mon, 07 Feb 2022" is in a smaller font. A share icon is in the bottom right corner.

metoda  
**priceAPI**  
the data you need



# 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

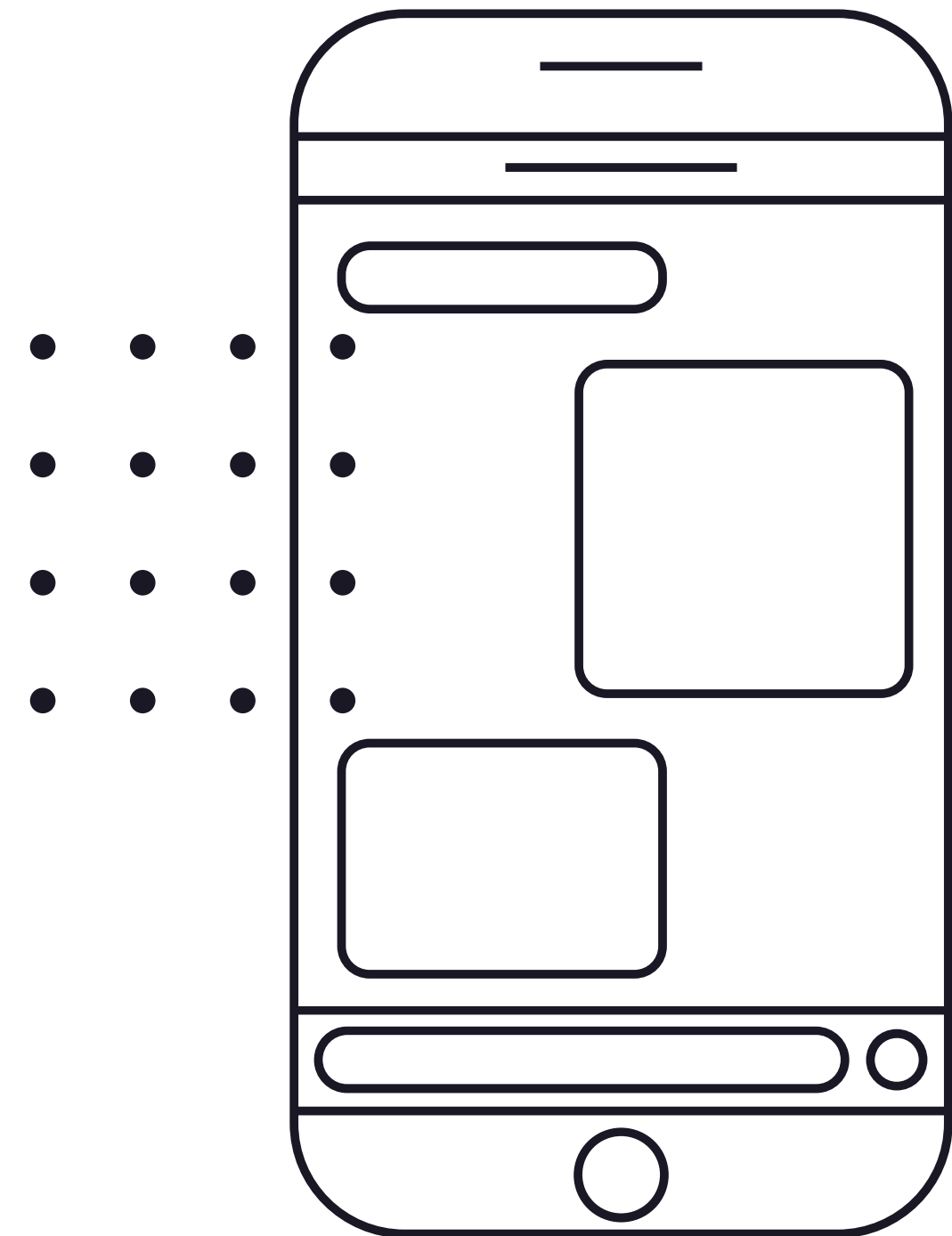


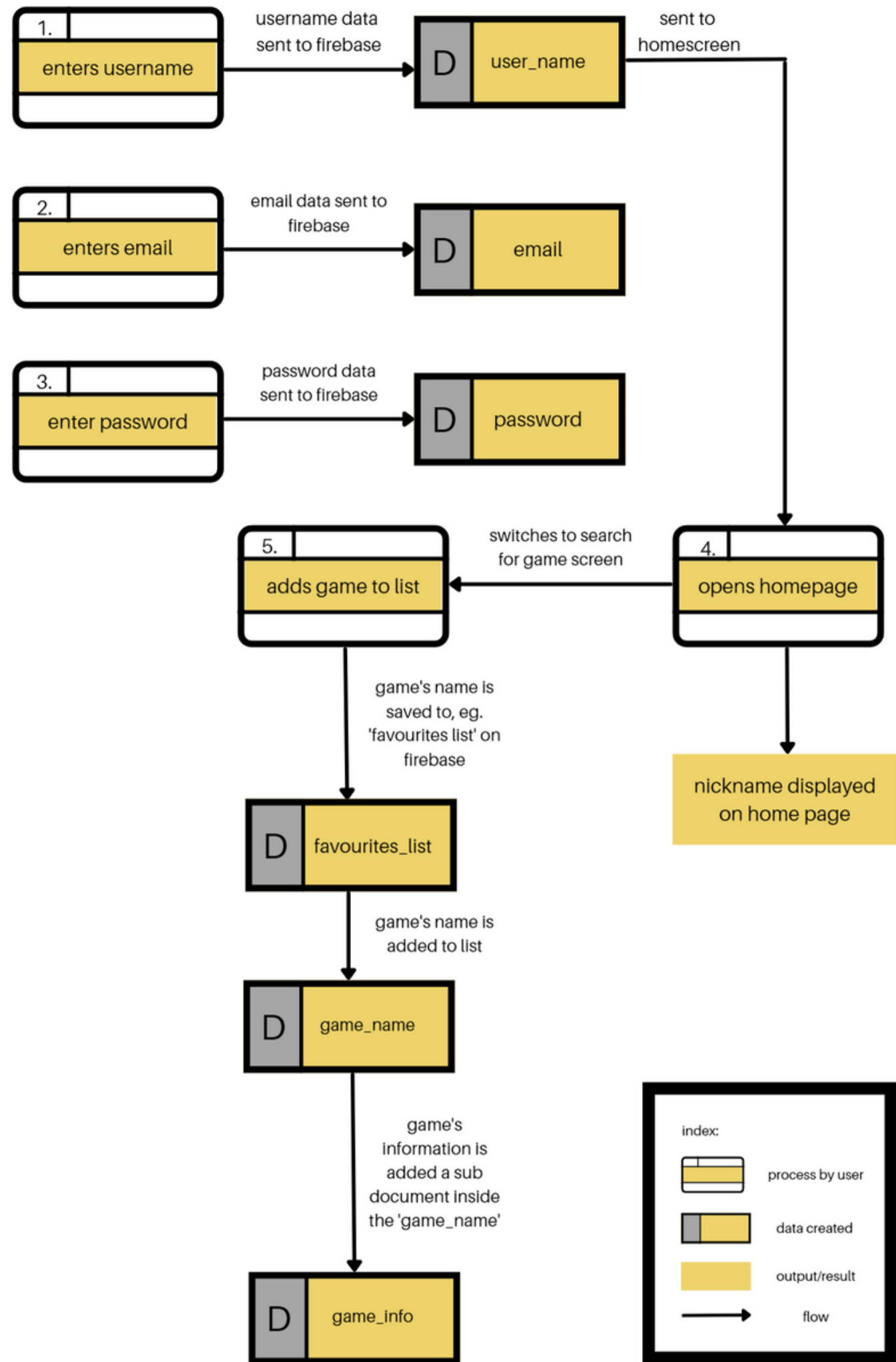


# DIAGRAMS

Following are the diagram created for development of Gametrax:

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

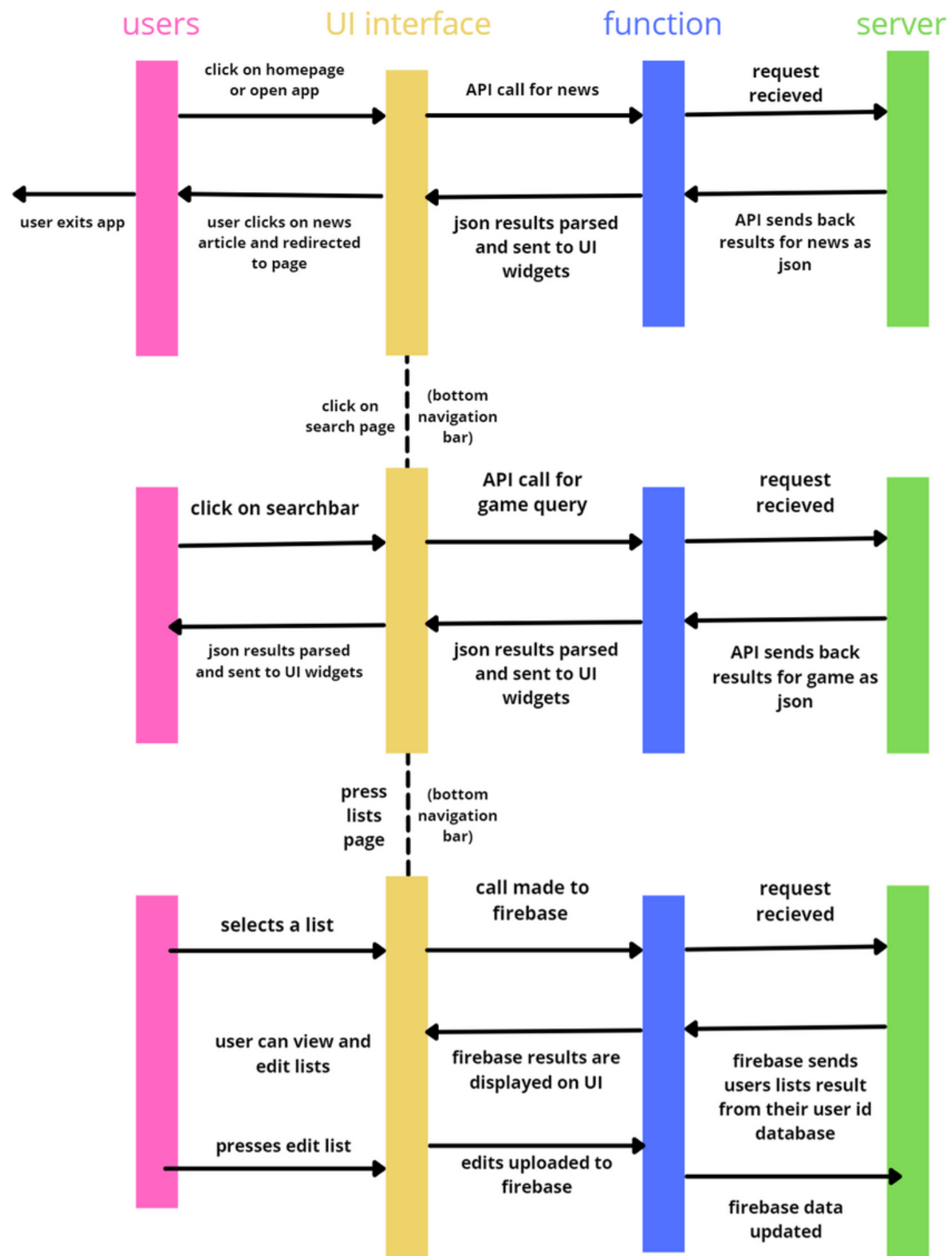




# Level 2

## Data Flow Diagram

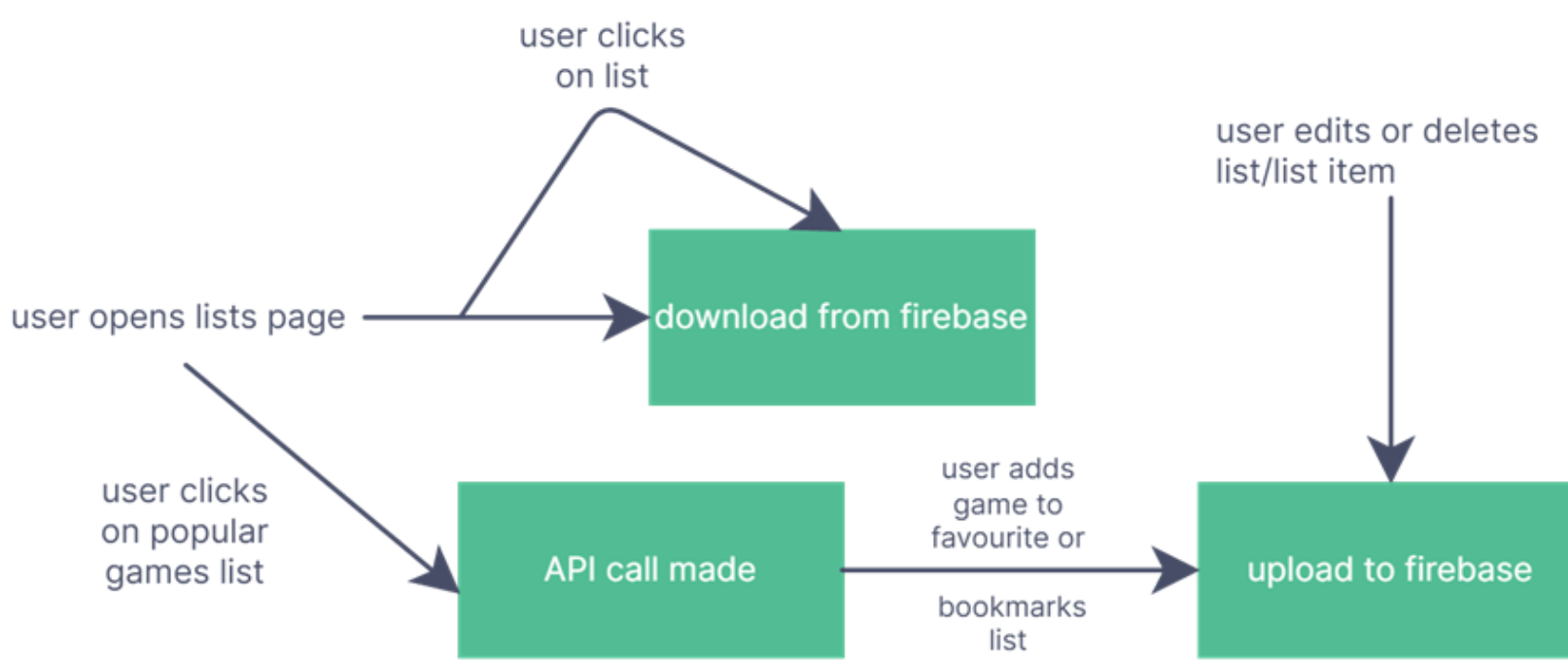
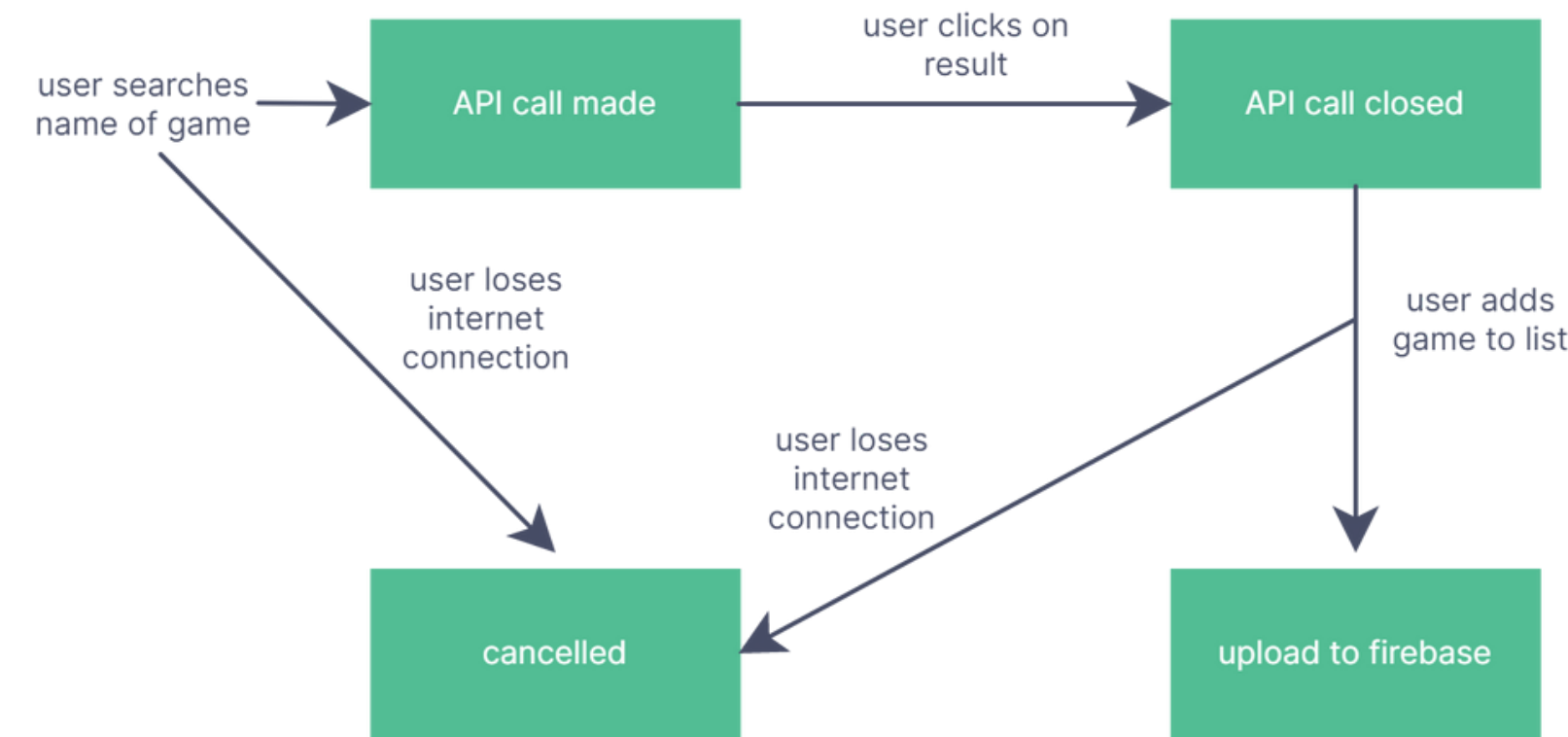
- there are 6 main data sets in the application right now
- and 5 main processes



# Sequence Diagram

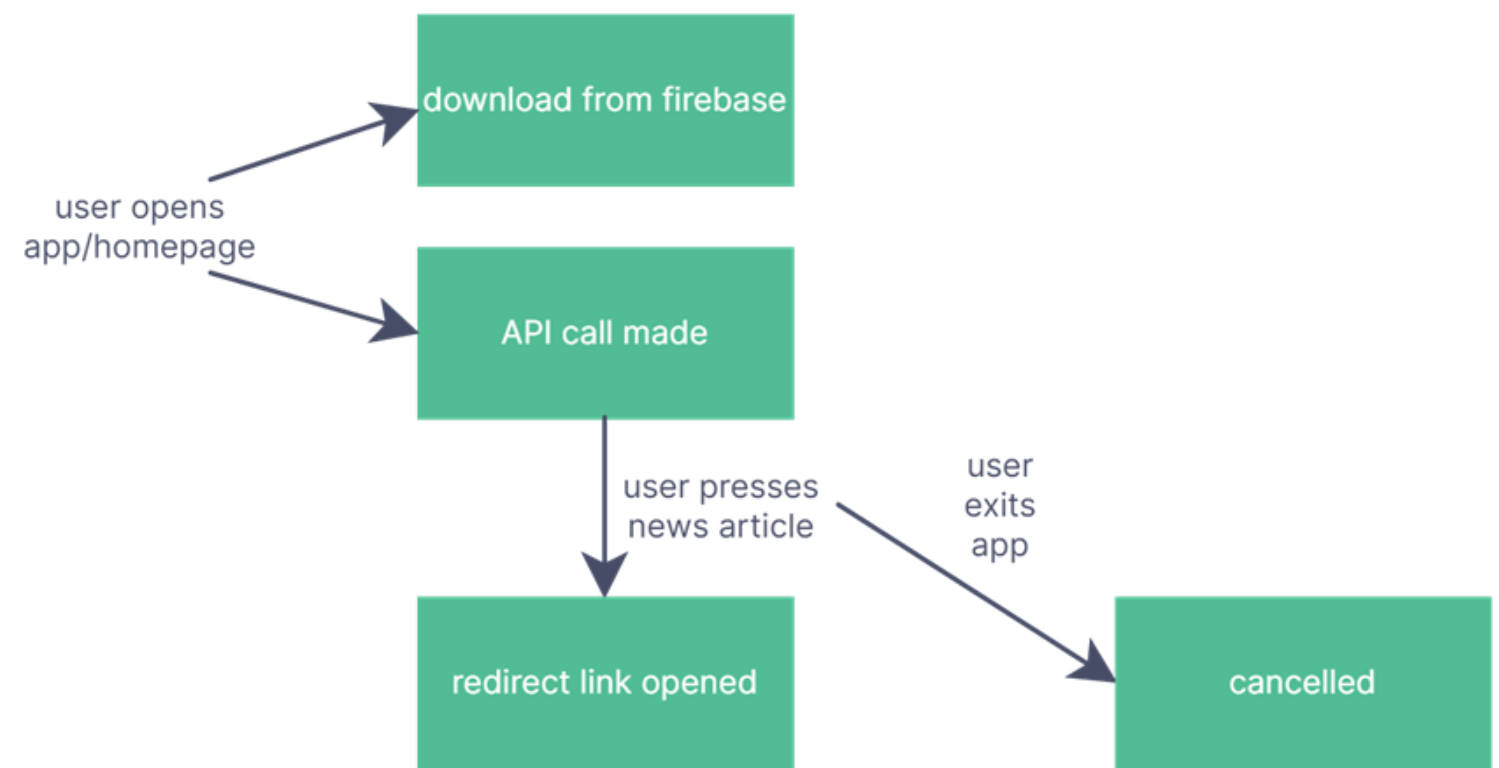
- There are 4 main interfaces
  1. users
  2. UI interface
  3. function
  4. server
- the 3 main modules currently in the app can be accessed by the bottom navigation bar (yellow , UI interface)

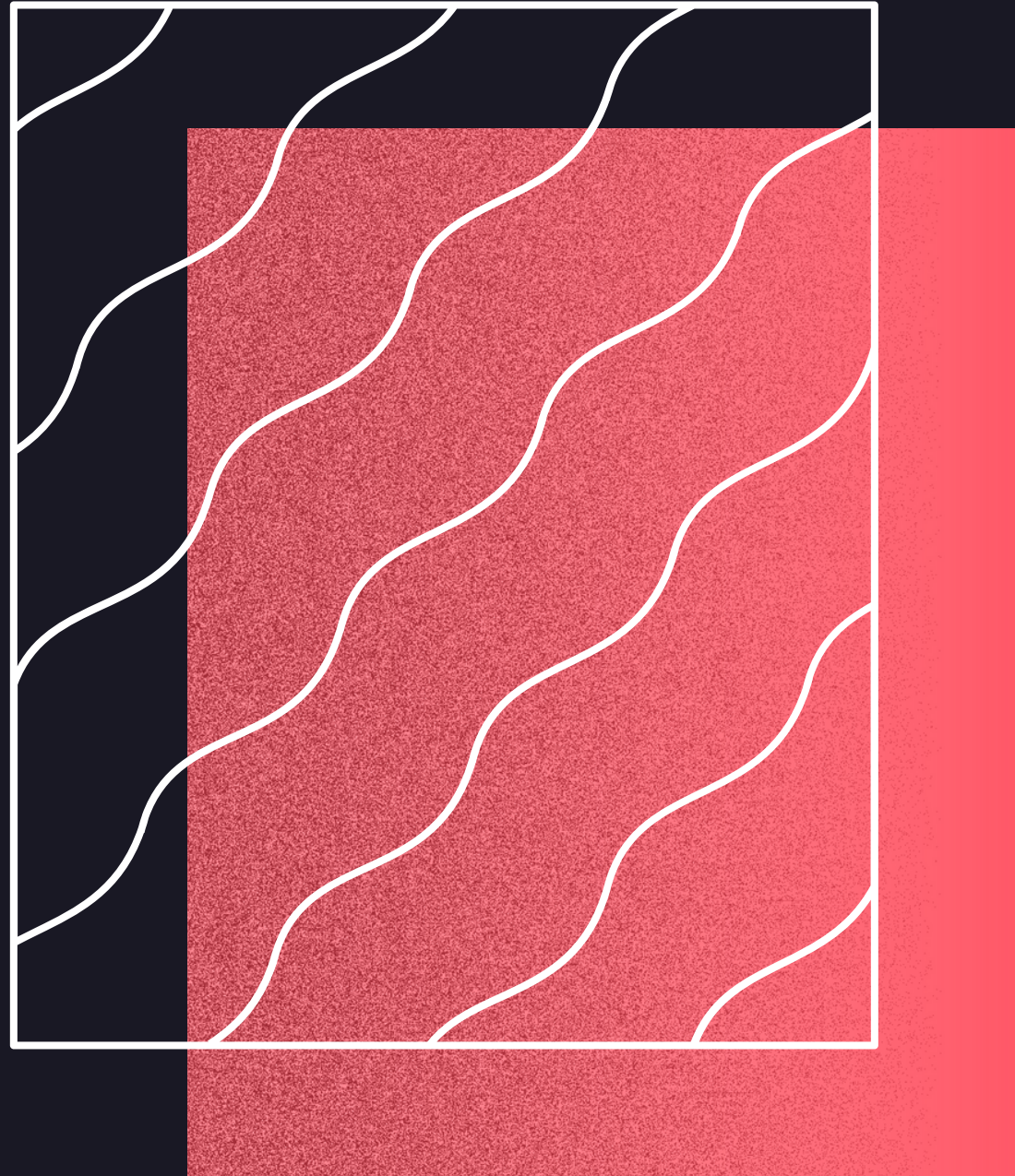
# State Transition Diagrams



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



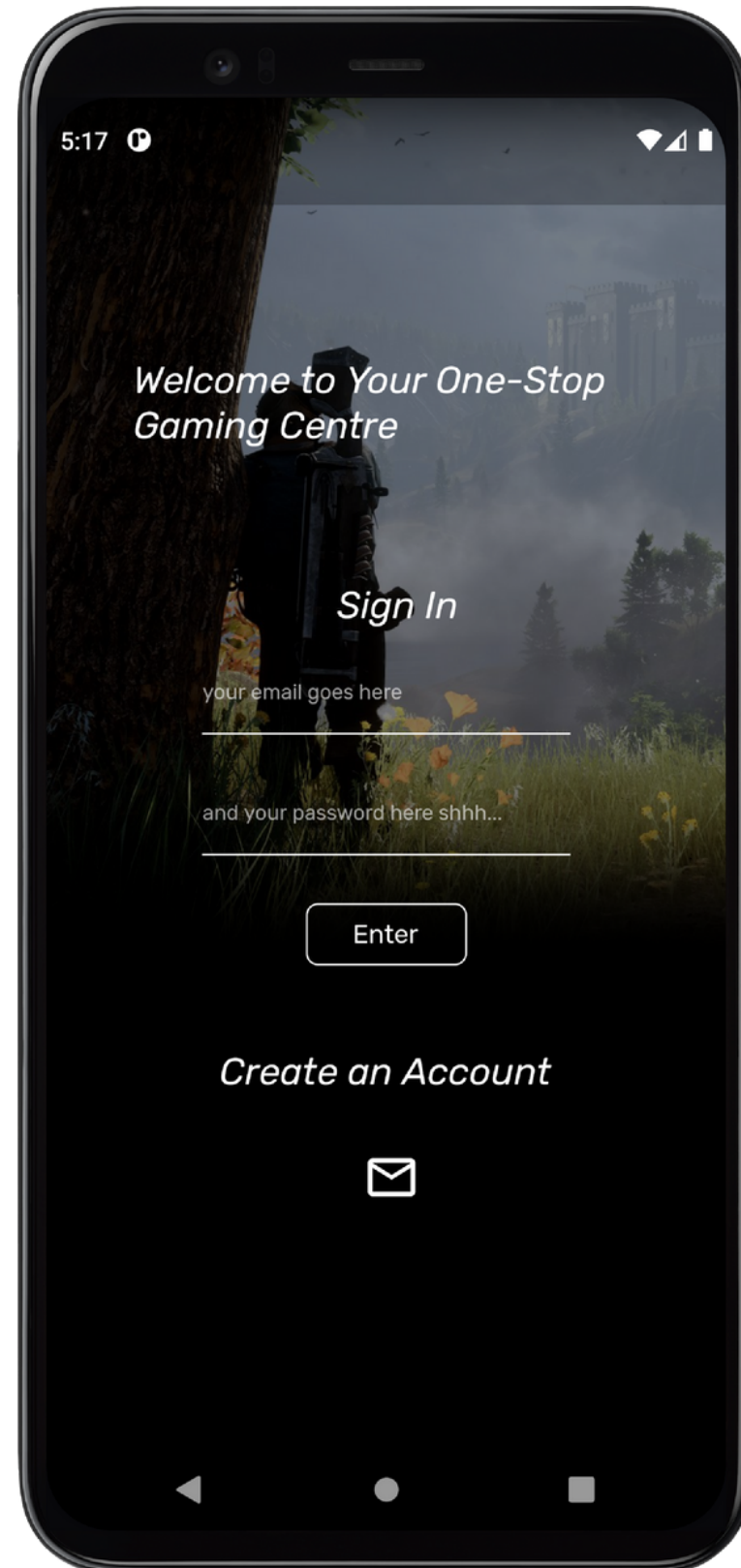


# SNAPSHOTS OF GAMETRAX

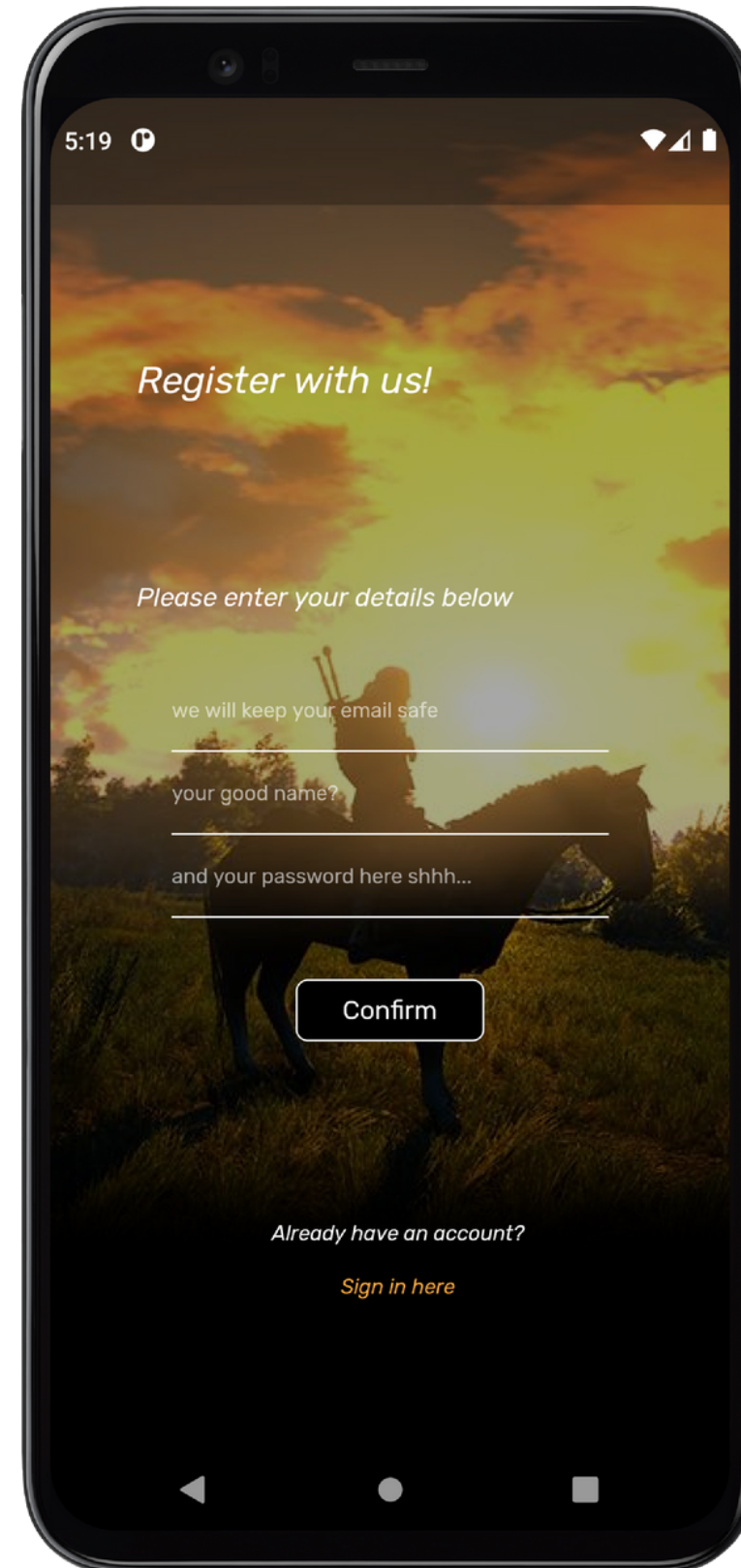
Following are the currently developed screens of the application



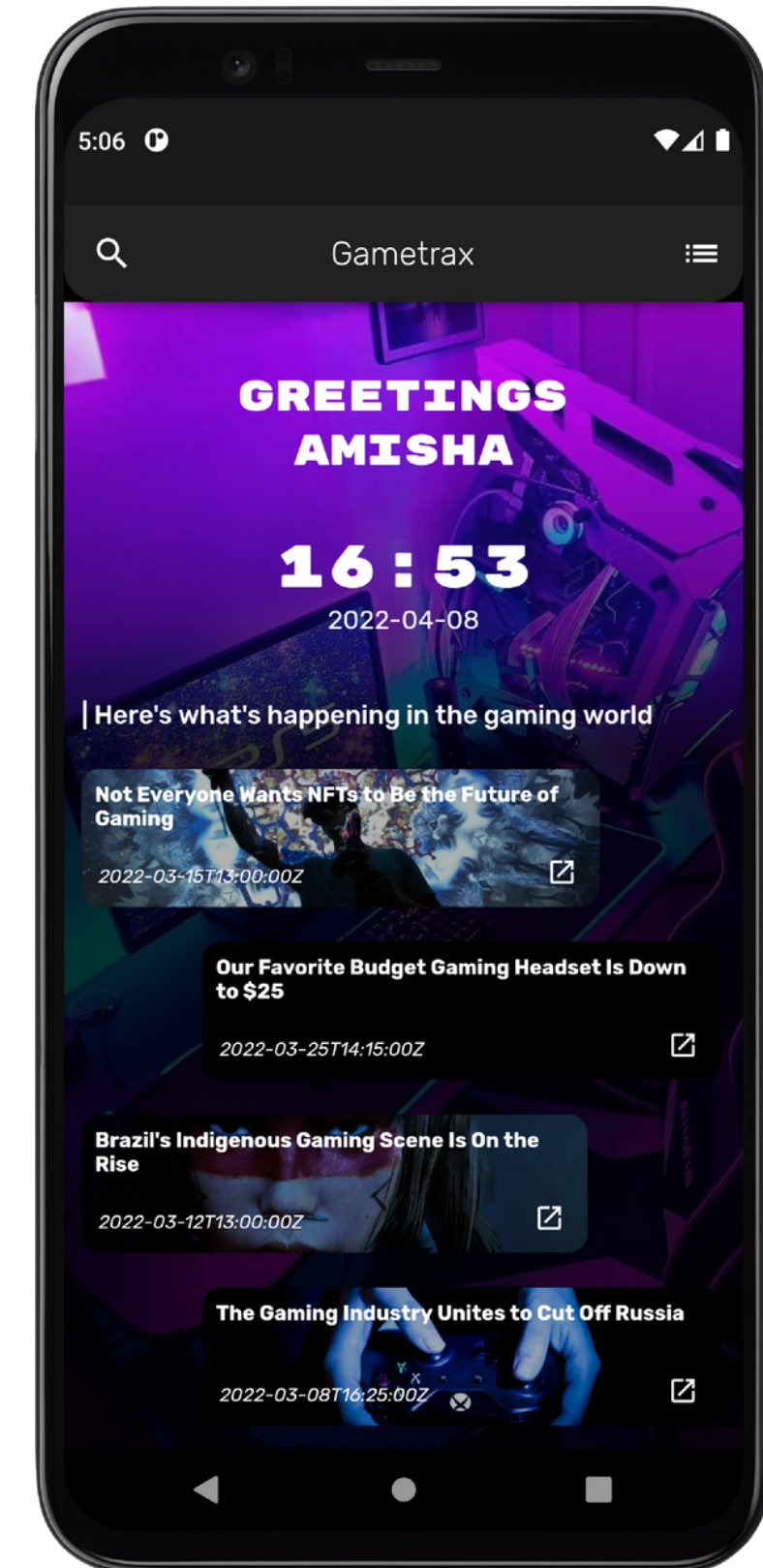
## Login Screen



## Sign-up Screen

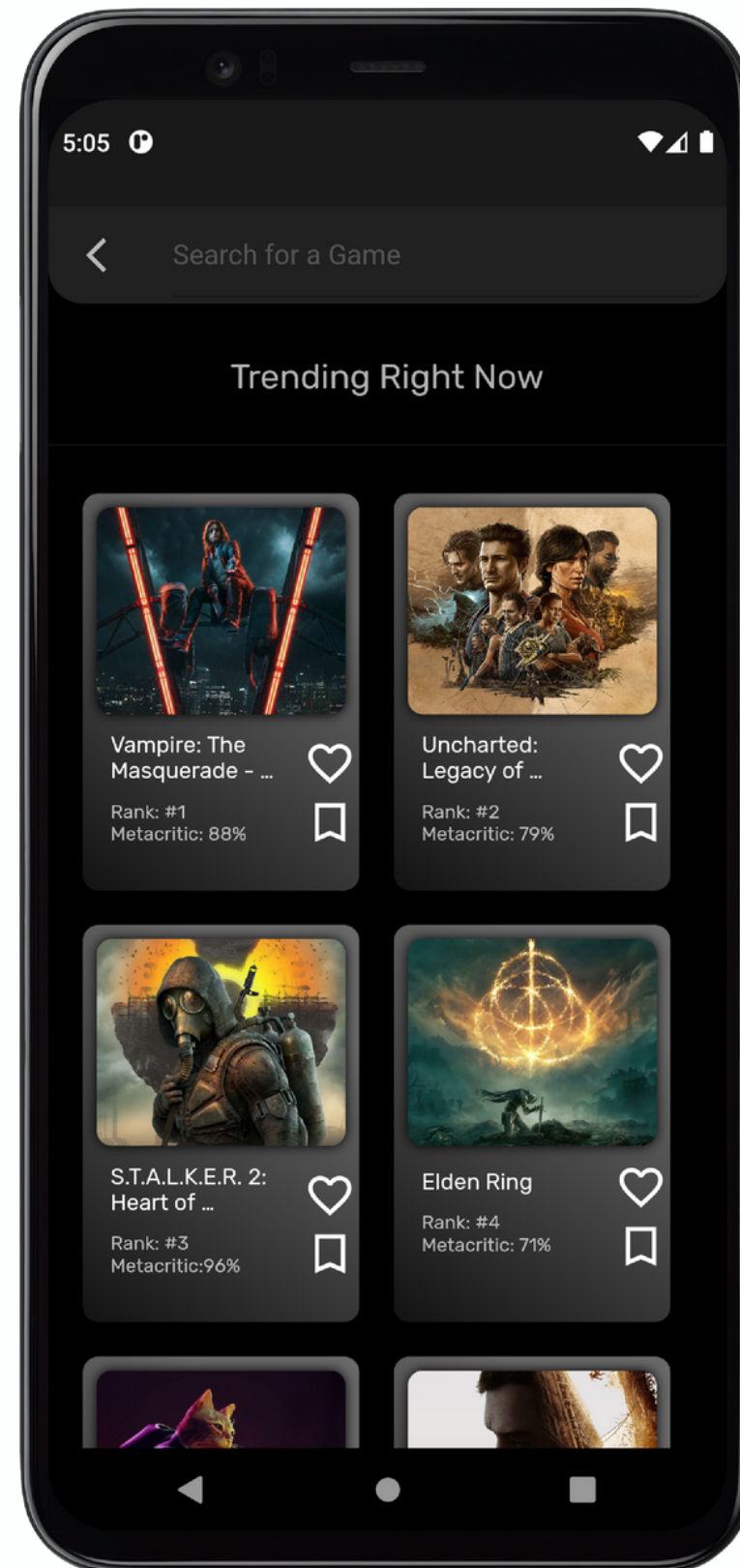


## Home Screen

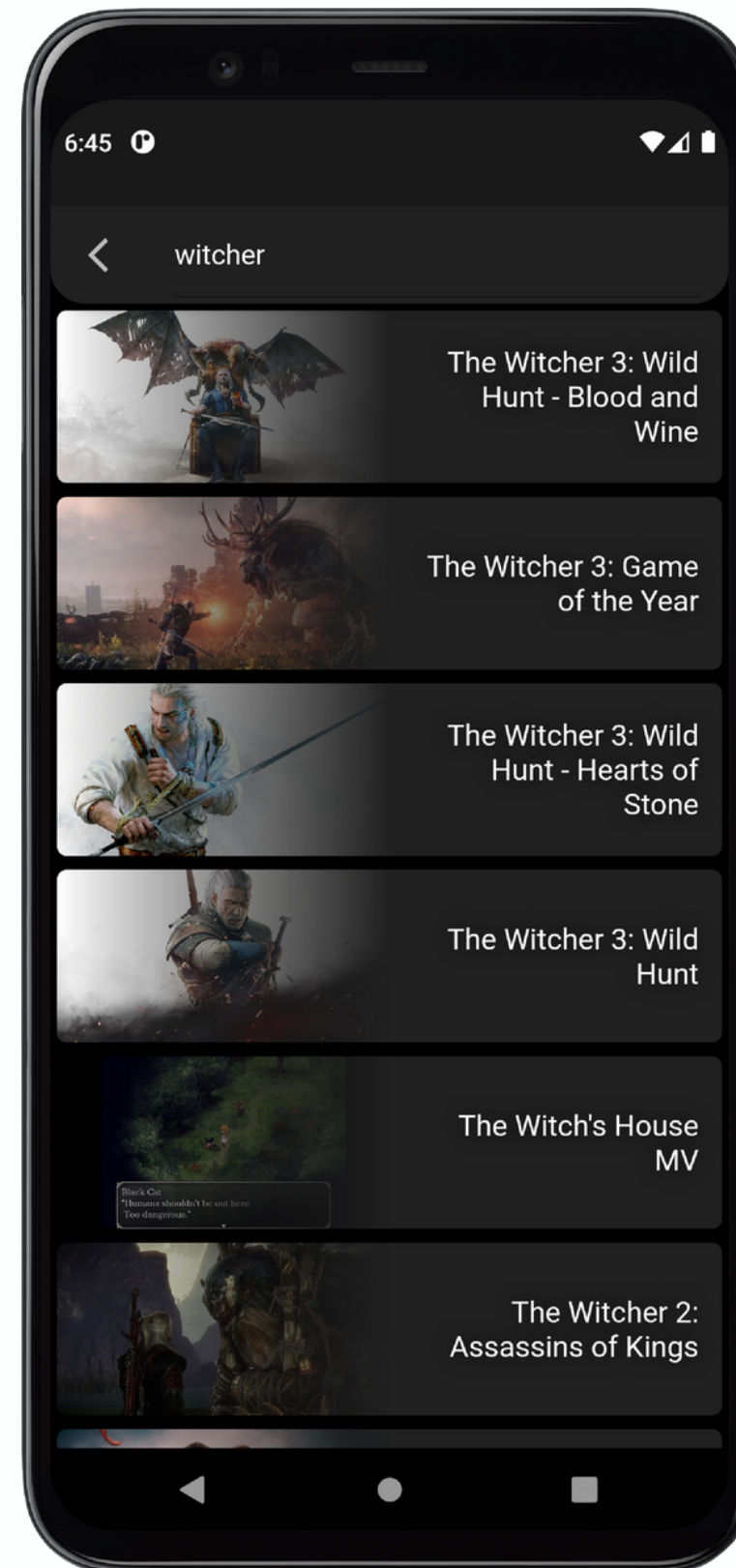




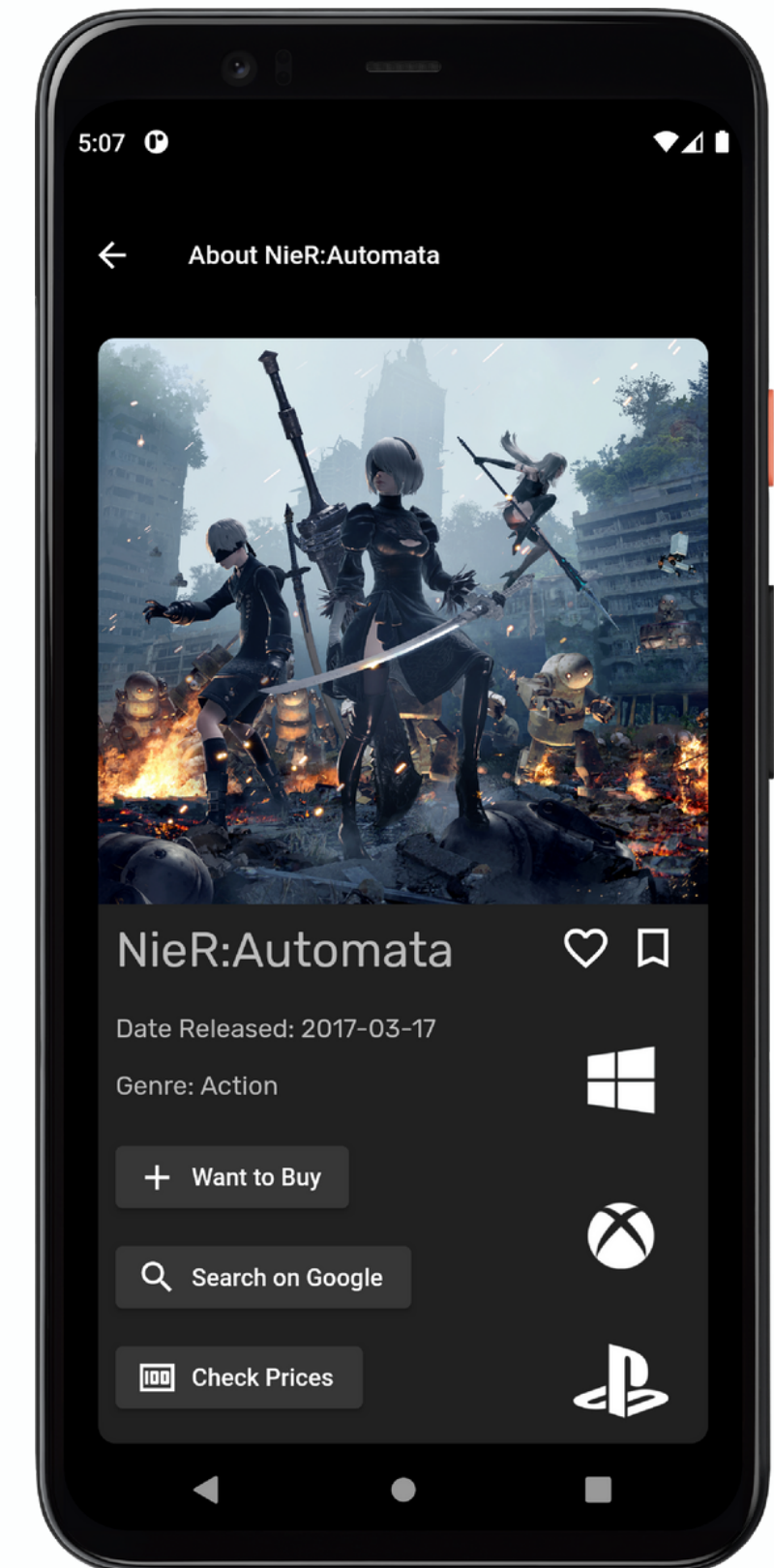
## Trending Games



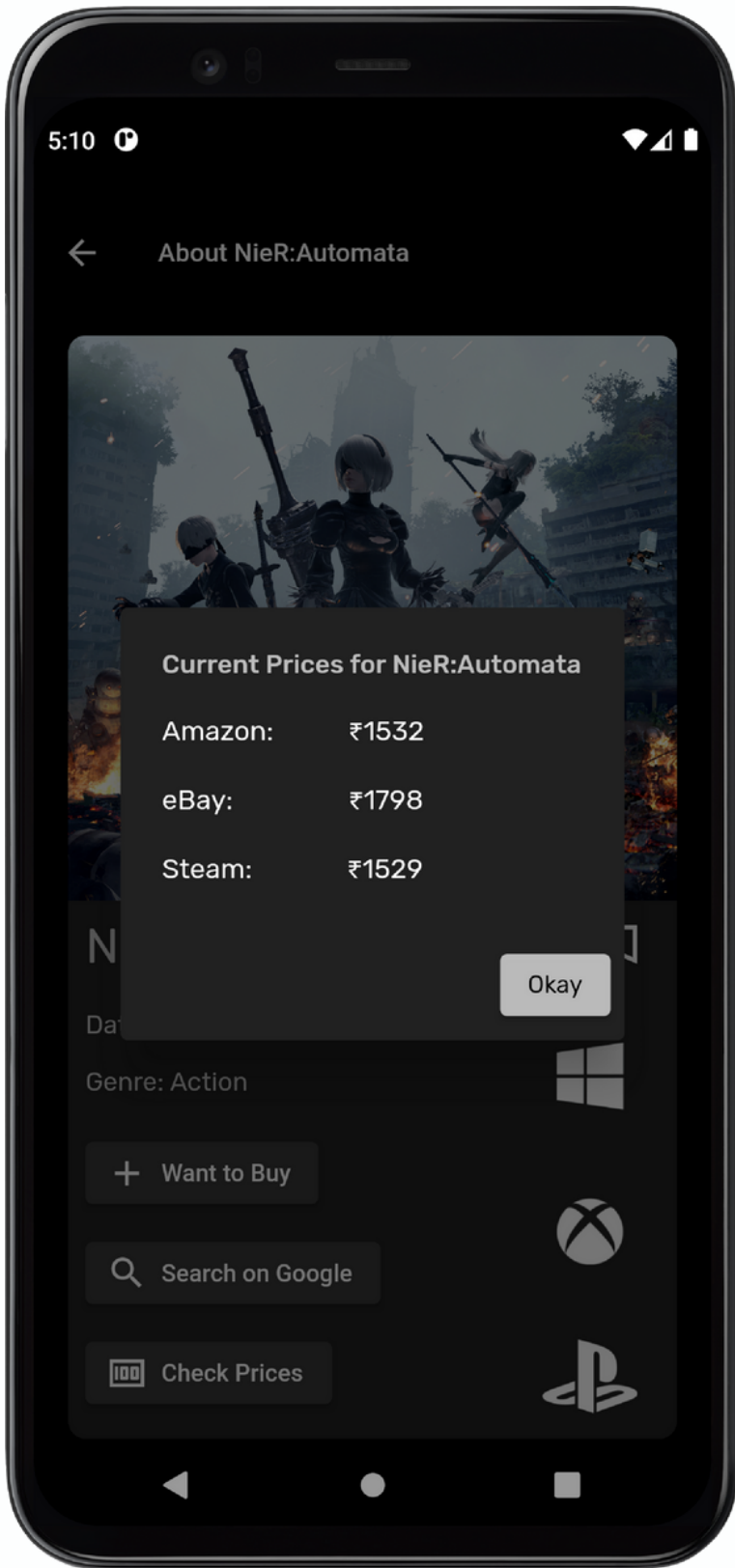
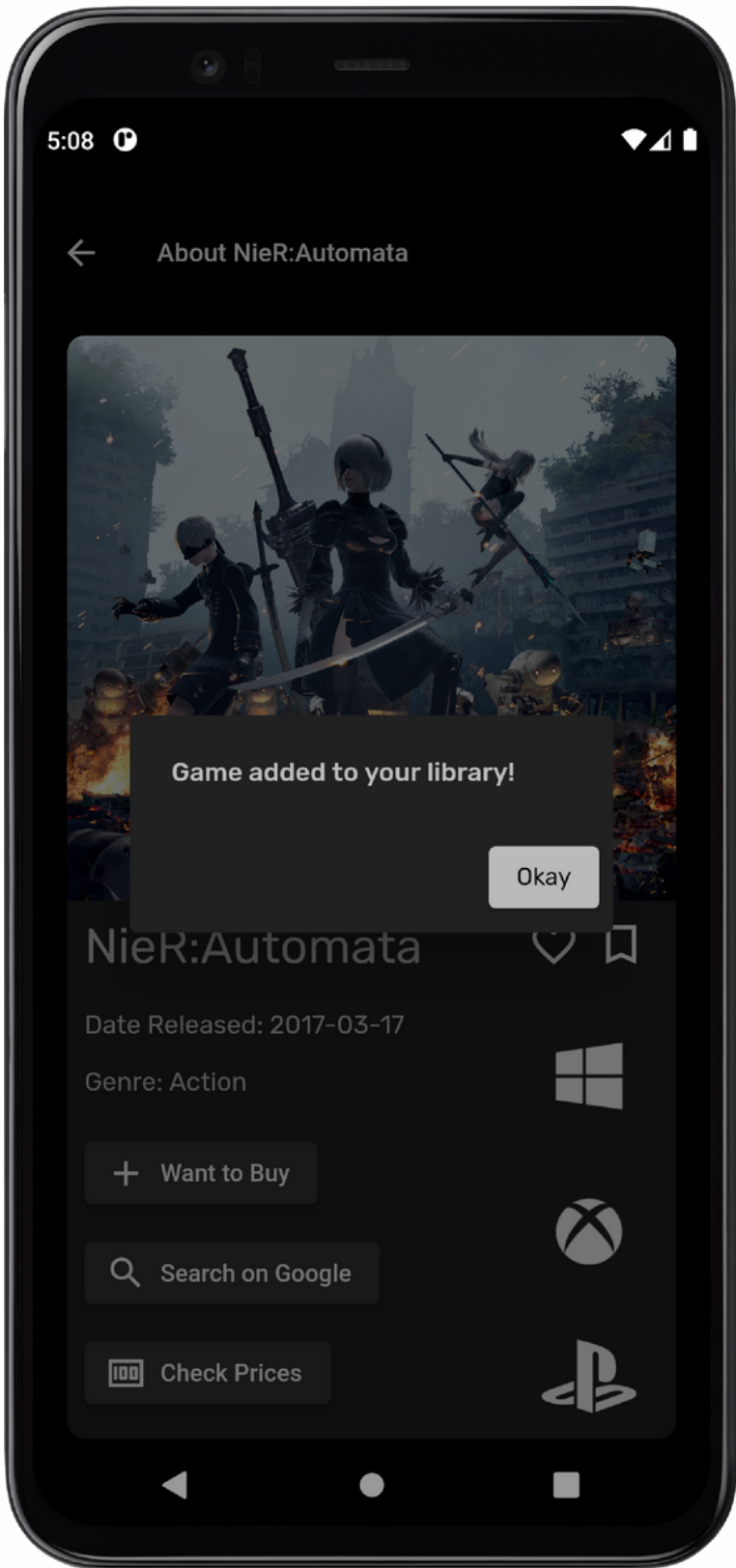
## Search for Game Screen



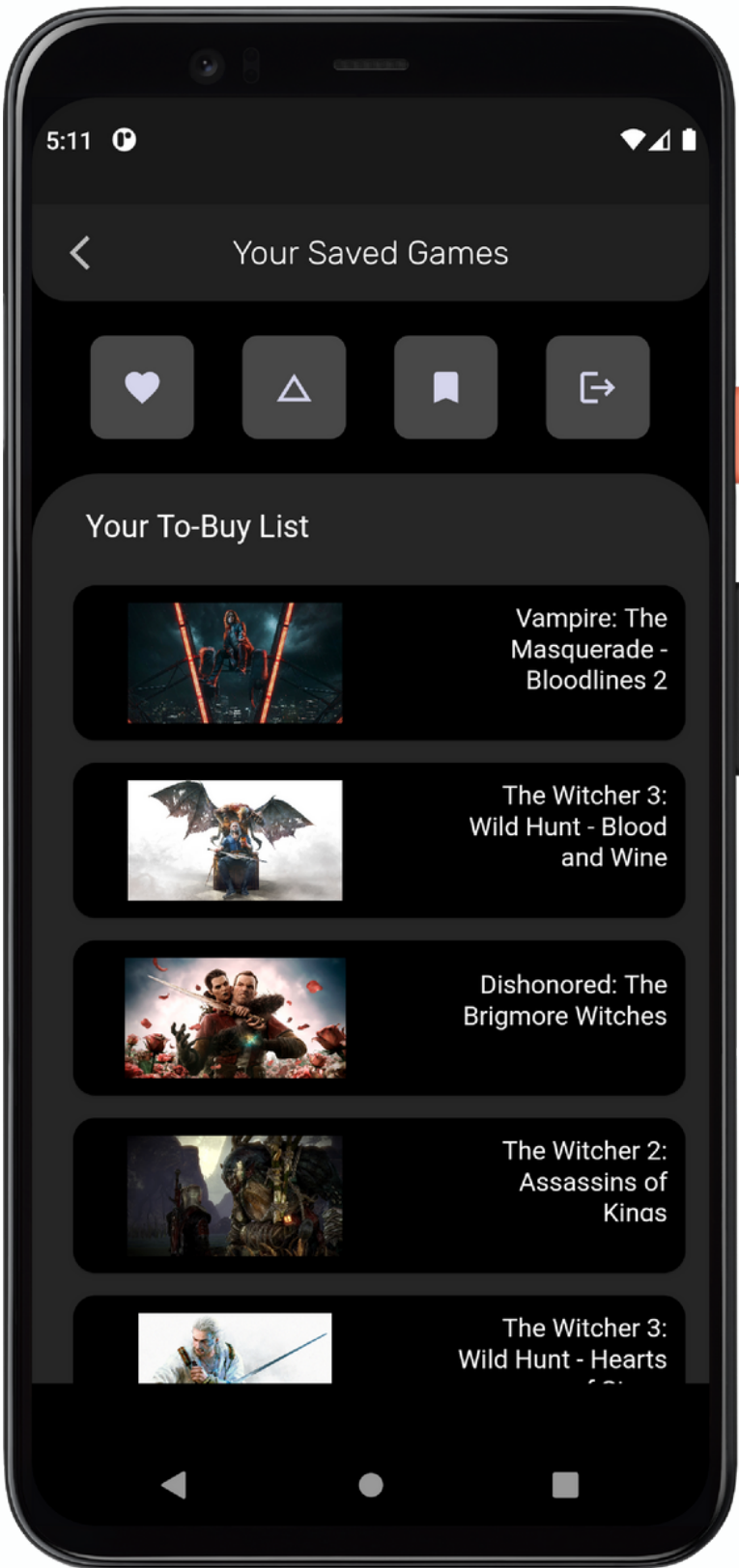
## Game Information Screen



# Information screens 2



# Lists Screen

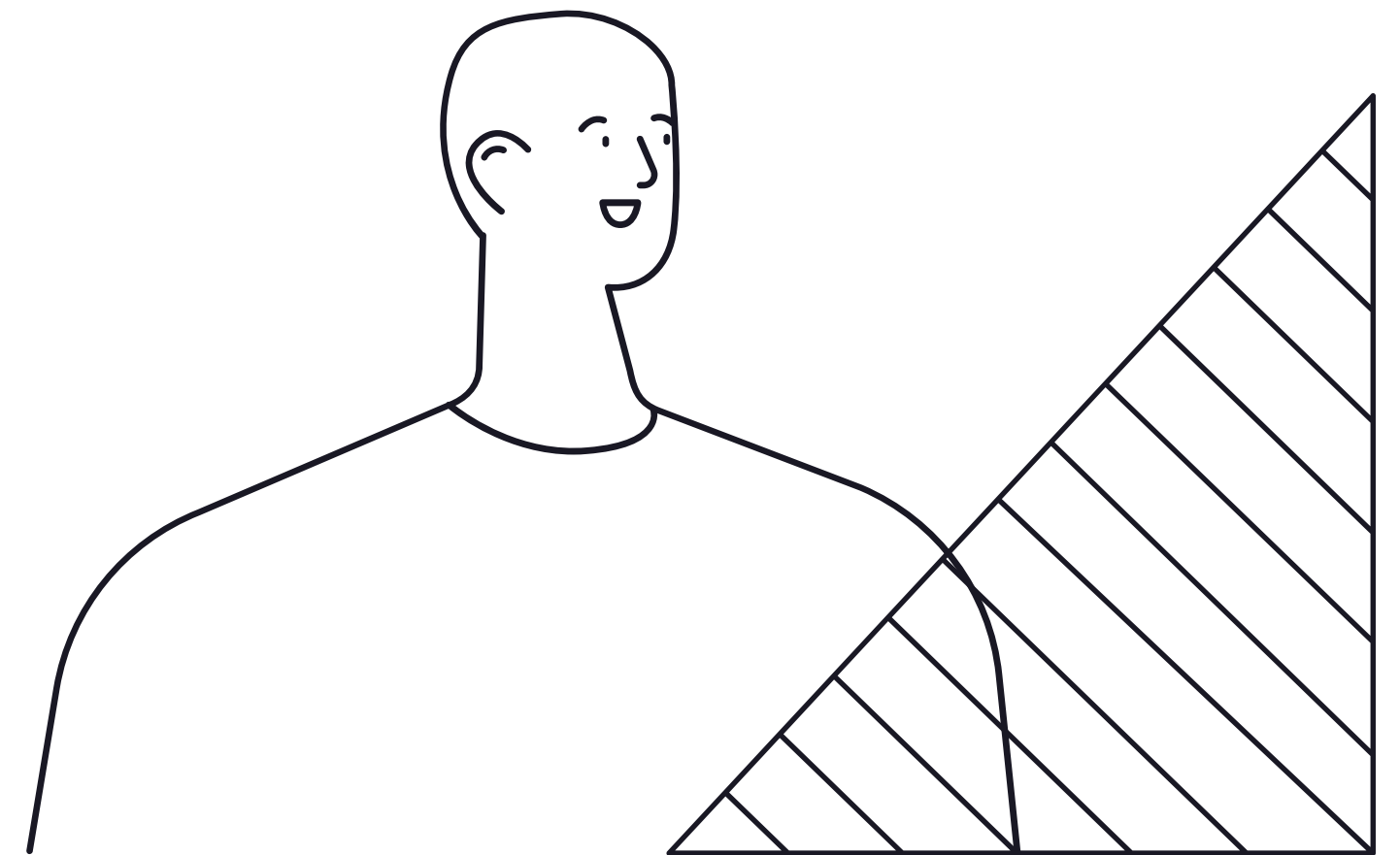


# CONCLUSION

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