Software Engineering Project Proposal

Data visualization

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Data Set

Mobile App Statistics (Apple iOS app store)

The ever-changing mobile landscape is a challenging space to navigate. The percentage of mobile over desktop is only increasing. Android holds about 53.2% of the smartphone market, while iOS is 43%. To get more people to download your app, you need to make sure they can easily find your app. Mobile app analytics is a great way to understand the existing strategy to drive growth and retention of future user.

With millions of apps around nowadays, the following data set has become very key to getting top trending apps in iOS app store. This data set contains more than 7000 Apple iOS mobile application details. The data was extracted from the iTunes Search API at the Apple Inc website. R and Linux web scraping tools were used for this study.

Content:

appleStore.csv

1. "i": ID
2. "id": App ID
3. "track_name": App Name
4. "size_bytes": Size (in Bytes)
5. "currency": Currency Type
6. "price": Price amount
7. "ratingcounttot": User Rating counts (for all version)
8. "user_rating" : Average User Rating value (for all version)
9. "ver" : Latest version code
10. "cont_rating": Content Rating
11. "prime_genre": Primary Genre
12. "lang.num": Number of supported languages
13. "vpp_lic": Vpp Device Based Licensing Enabled
14. "create_date": create time
15. "update_date": update time
16. "deleted_date": delete time

appleStore_description.csv

1. "i": ID
2. "id": App ID
3. "app_desc": Application description
4. "create_date": create time
5. "update_date": update time
6. "deleted_date": delete time

Idea:

The purpose of this project is to produce a program to process and visualize the dataset. Our system has two main parts. Backend-end and Front-end.

Back-end:

The database is designed and files are imported. The overall structure of the program is based on object-orientation. Classes and methods are designed. Finally data prepared in REST API architecture.

Front-end:

Sends a request and uses the prepared API, fetches the data and parses the json.

Finally shows the data in right place.

Tools and Technologies

Mobile Application

Front-end:

- Flutter

Back-end:

- Node JS
- Jest
- Postman
- REST API

Programming Methodology:

Object-oriented programming

GitHub Address:

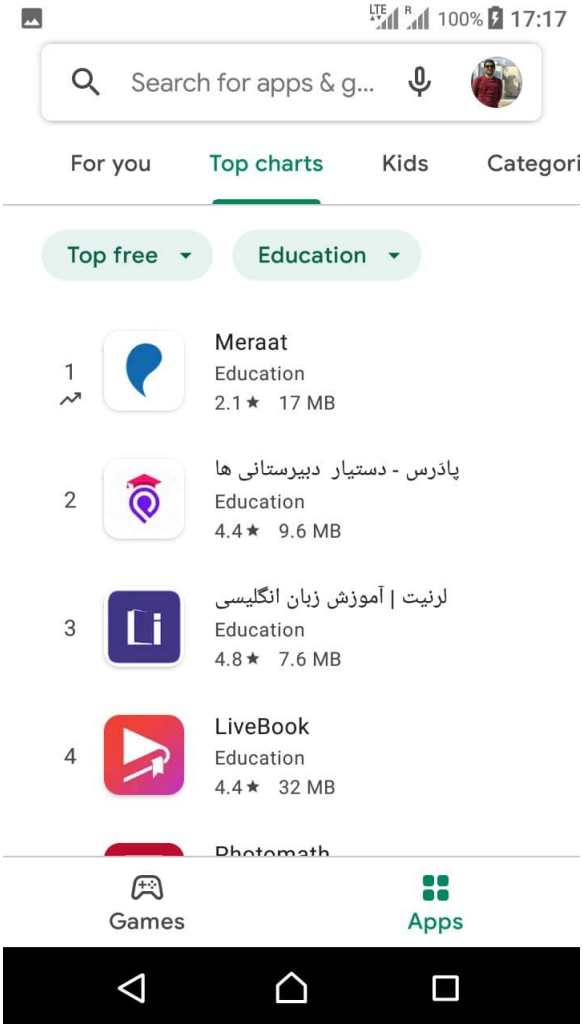
https://github.com/CaptainFeri/nest-app-store

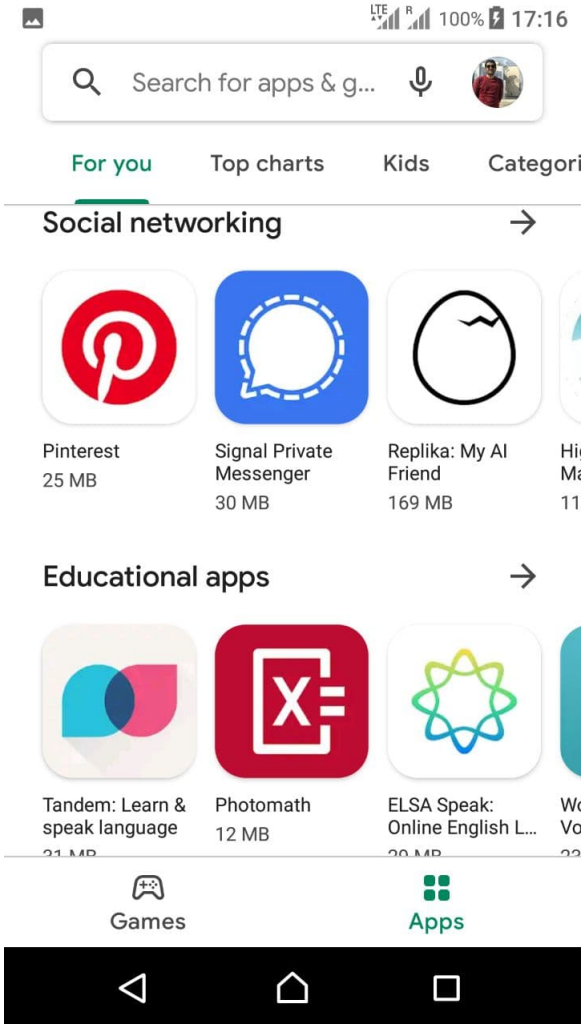
Actor and use cases

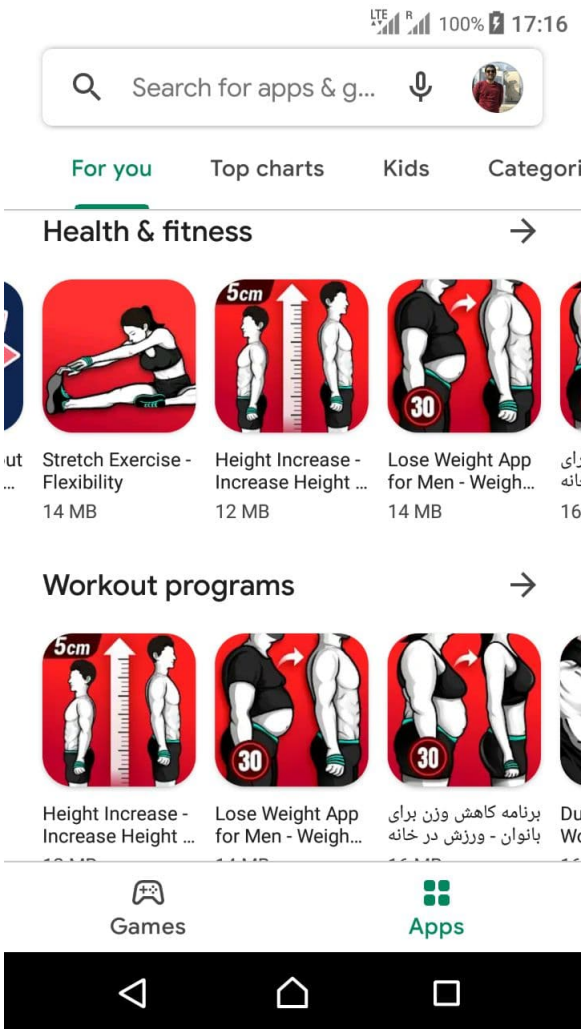
Use case	Actor
View App info: By clicking on the App name on the list, the user can see the details of the app such as name, topic, rating and….	**user**
View Categories: User can view All categories as slider.	
View Apps by Category: By clicking on the Category, the user can view all apps that have same category.	
View Related Apps for each App: User can view the other related apps .	
View Top Free Apps: User can view Top Free Apps list	
View Top Popular Apps: User can view Top Popular Apps list	
Search: By searching, the user sees all the related programs as a list.	

Some Screenshots:

The final result will be a beautiful app like this but much simpler and this is not the exact output of this project because of some dataset restrictions.



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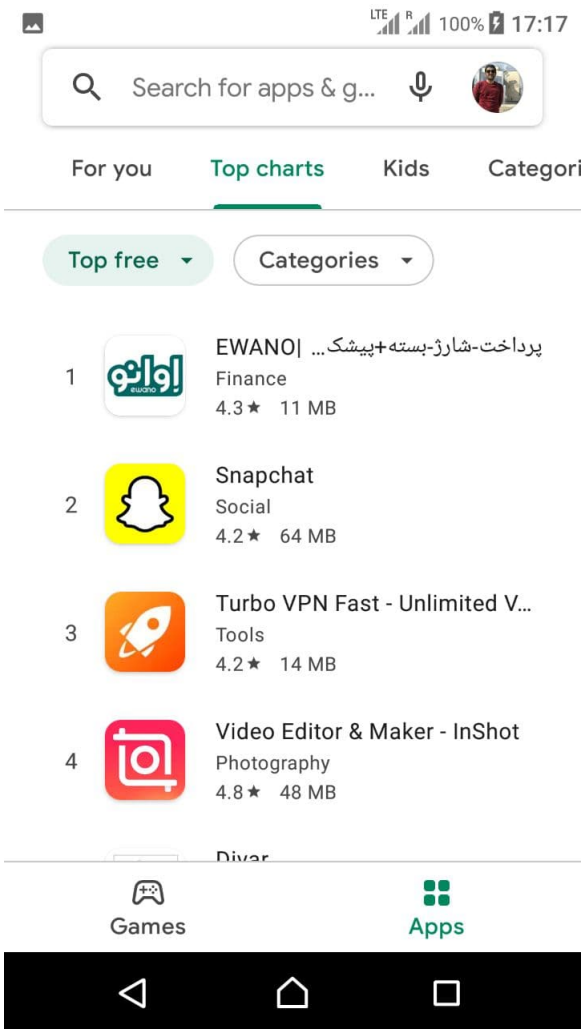
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4.2★ 64 MB
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