Project Proposal - team-080-HighLevel
Project Title: “Life” == “game”

1. Project Summary

Our group selects “Steam Game Data” as our dataset, and the data is from the Project Track 1 Datasets. For attributes and information in the database, we plan to store queryId, name of the game, does this game provide discount, is this game free, allowed platforms of the game, requirements in each platform, game categories and so on. Users can get related information by searching keywords of one game. Also, the function of filer and ranking in the website will provide some recommendations of games for users according to their requirements. What’s more, the website provides the function of comments for each game so users could communicate with other users about their interested game. Then users could express their thoughts about the game to provide more real views for users of the website. Also, each comment can be replied. For achieving the function of comments, we will create a database to store content of comments and insert these comments into our database. Also, the page of the application needs to be updated in real time.

2. Description

2.1 Overview Description

The goal of this project is to recommend games to users according to the ranking and filter of different attributes such as count of good ratings, number of players, hardware requirements and so on. Among these, one of the most important attributes is the hardware requirement which is where our website is different from other websites. Then, certain games can be recommended to users with different hardware settings. We will provide our users with a search bar which allows them to search for games suitable for their hardware and the result will be displayed based on keyword and order of popularity. Moreover, users can add or delete their comments under the game page so that they can express their real thoughts anonymously.

It is better to separate the overall work of the project into several parts, which will be more efficient to finish it. Firstly, we will preprocess the data. Secondly, database management and database transformation need to be finished. Finally, our group will accomplish the work of front-end (UI/UX design), the function including recommendation and filter.

2.2 Usefulness Description

There are a lot of search engines for games, like *Steam* and *EA*. On the front page of these engines, featured games or the most popular ones are displayed which can immediately grab the attention of the users. These games usually require high-end and excellent hardware support to run smoothly. To be honest, users with a Macbook or lower hardware setting PC usually find it difficult to search for the games that are best suitable for their hardware settings.

Therefore, our team wants to develop a fair and user-friendly tool to recommend various games multidimensionally, including the minimum hardware requirements. From this perspective, our project differs from other game search engines since games with minimum hardware requirements higher than users' settings will be excluded from the list.

2.3 Realness Description

Our team project will utilize "Steam Game Data" which contains games for multiple operating systems including Windows, Linux, OS X, and so on. This csv file is detailed and explicit about almost every aspect of the games users may need to decide whether they would like to play it or not. It contains detailed attributes such as "about text", price, DLC count, genre, operating system, and minimum hardware required. The data can be retrieved from KAGGLE with csv format. The source link is https://www.kaggle.com/datasets/iamsouravbanerjee/computer-games-dataset.

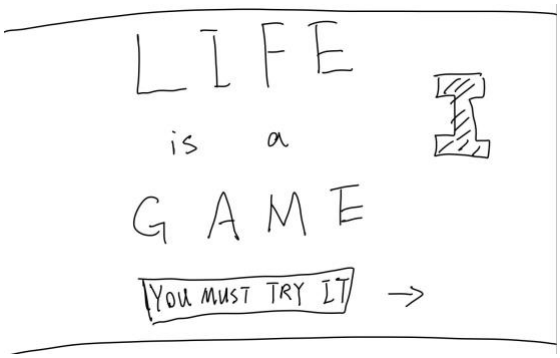
3. Functionality Description

First of all, users can put in keywords and search for the games they want to play. Our system will generate relevant results ordered by relevance and popularity (eg. player count / comment count / ratings). Moreover, users can filter the search with categories/minimum hardware requirements/operating systems/discounts/Date Released and so on.

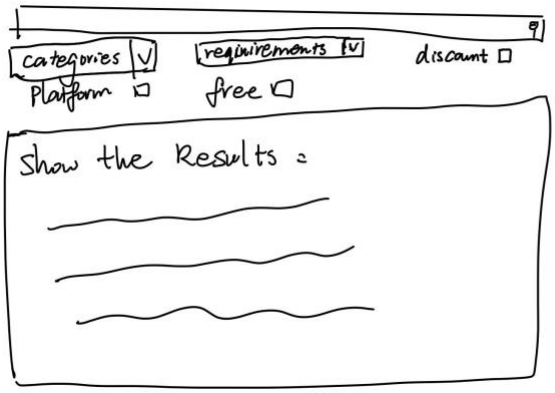
Furthermore, we have a comment section for each game page. Users can create and update their comments. Also, they have rights to delete comments from the page. Other users can view the comment section to have a more comprehensive view of the game.

3.1 Low-fidelity UI Mockup

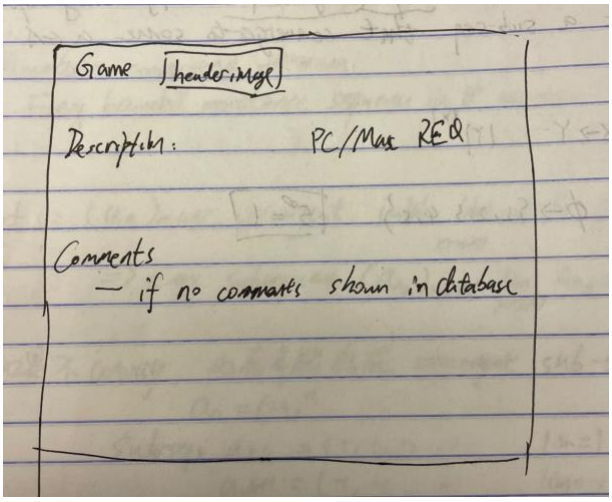
3.1.1 The front page:



3.1.2 The main page (filters/sort by and recommendations):



3.1.3 Search Result: Description/REQ/Comments/Reviews



3.2 Project Work Distribution

- The data preprocessing will be accomplished by Peng Chen and Jincheng Xu.
- Database management and database transformation will be accomplished by Peng Chen and Jincheng Xu.

- The front-end (UI/UX design) will be accomplished by Yukang Qiu.
- The function including recommendation and filter will be accomplished by Xinyu Chen and Yukang Qiu.