# Requirements Specifications For Project Avocado

Lab-01-Group-05

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### 1 Domain

The stakeholders are recent post-secondary graduates in Canada with student debt. Their concerns are their ability to stay motivated in the repayment of their loans. Their expectations are to receive a level-playing-field score that motivates them to pay off their loans ahead of schedule.

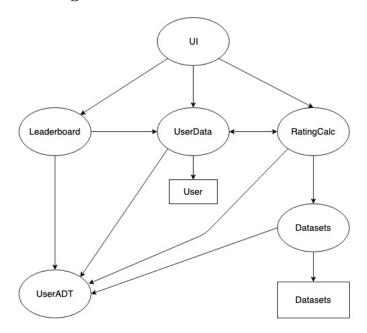
The knowledge of the domain in this case would be financial information of recent post-secondary graduates in Canada.

# 2 Functional Requirements

#### 2.1 Requirements List

- 1. Calculates a user score.
- 2. Has a login and account system.
- 3. Has a leaderboard.
- 4. Displays user score.
- 5. Accepts user input.
- 6. Can update user data.
- 7. Can update data set.

#### 2.2 Class Diagram



- The circles represent classes.
- The squares represent databases. 'Datasets' are the large publicly available datasets used for this project, 'User' is the database of user information.
- The arrows represent uses relationships. The item at the tail of the arrow uses the item at the head of the arrow.

## 3 Non-Functional Requirements

- 1. Reliability
  - (a) The application must secure the users important personal and financial data.
- 2. Accuracy of Results
  - (a) User Score must be accurate enough to provide users a sense of a level playing feild.
- 3. Performance
  - (a) Needs to be good enough to not negatively impact user experience.
- 4. Human-Computer Interface
  - (a) Has good user interface.
  - (b) Has good user experience.
- 5. Operating Constraints
  - (a) Real-time updates with databases.
- 6. Portability Issues
  - (a) Needs to be useable on multiple platforms

# 4 Requirements on the Development and Maintenance Process

These include quality control procedures (in particular, system test procedures), priorities of the required functions, likely changes to the system maintenance procedures, and other requirements.

One quality control procedure that we have implemented is to have all changes made in separate branches. After the changes are made the project lead will review the changes and either push the changes to the master or send them back for revision. One major change to system maintenance procedures

that will happen soon is the implementation of system test procedures. The priority of implementation of the required classes are as follows from first to last:

- $\bullet$  UserADT
- $\bullet$  RatingCalc
- Dataset
- $\bullet$  UserData
- Leaderboard
- UI