

Personalized Ranking of Tournaments For Users

Problem Statement: When a user logs in to the platform, they have to choose from a variety of tournament types (A / B / C / D). Additionally, different entry fees may be associated with every tournament. As a platform we must ensure that the most relevant tournaments are suggested to the user based on their preferences.

Available Data: You will be given anonymised user gameplay data in the form of 3 csv files. Fields in the data are as described below:

Gameplay_Data.csv contains following fields:

- Uid: Alphanumeric unique Id assigned to user
- Eventtime: DateTime on which user played the tournament
- Entry_Fee: Entry Fee of tournament
- Win_Loss: 'W' if the user won that particular tournament, 'L' otherwise
- Winnings: How much money the user won in the tournament (0 for 'L')
- Tournament_Type: Type of tournament user played (A / B / C / D)
- Num_Players: Number of players that played in this tournament

Wallet_Balance.csv contains following fields:

- Uid: Alphanumeric unique Id assigned to user
- Timestamp: DateTime at which user's wallet balance is given
- Wallet_Balance: User's wallet balance at given time stamp

Demographic.csv contains following fields:

- Uid: Alphanumeric unique Id assigned to user
- Installed_At: Timestamp at which user installed the app
- Connection_Type: User's internet connection type (Ex: Cellular / Dial Up)
- Cpu_Type: Cpu type of device that the user is playing with
- Network_Type: Network type in encoded form
- Device_Manufacturer: Ex: Realme
- ISP: Internet Service Provider. Ex: Airtel
- Country
- Country_Subdivision
- City
- Postal_Code
- Language: Language that user has selected for gameplay
- Device_Name
- Device_Type

Task: Build a basic recommendation system which is able to rank/recommend relevant tournaments and entry prices to the user. The main objectives are:

1. A user should not have to scroll too much before selecting a tournament of their preference
2. We would like the user to play as high an entry fee tournament as possible

As part of your solution, please include the following components:

- Code
- Documentation which outlines the solution approach, assumptions, success metrics and summary of final results
- Areas of improvement