The Use Cases of Ass2-Melbourne Property Price Prediction

List of use cases:

Users:

- User registration: user creates an account in the service by a username and passwords (must include letters). Our service responses user with a user-ID.
- Update user account information: user can update his or her own username and password, but ID is non-changeable. Our service responses users whether the update is successful or not.
- Get user information: User submit an ID. Our service response with corresponding username.

Authentication:

- User login service: Once user did registration, user submit his or her username and passwords, a randomly generated token will be returned to user. User uses this token to log in the service and then can request other service.

Houses:

- Post new house information: User posts a house information to the service, once the post successfully, the service will response with a predict price. The house features that users need to provide is shown to user.
- User gets house information followed by user required order: User can retrieve all houses information he or she has posted (including predict price). Input: order_by (choose among Distance, Landsize, BuildingArea and Yearbuild), ascending (choose among true or flase) Output: houses information list
- User updates some house information: inputs: 1, house features (same with post new house information), 2, userID 3, House identifier. Response: whether the house is updated successfully.
- User deletes any house information he or she posted: Input: UserID, House Identifier. Response: whether delete successfully.

APIUsage:

- User can get the API usage information. Not input. The response is a pie chart which shows the percentage of API operations use times date by now.

Graphs:

- Users can retrieve a graph about general property price information:
  Graph1 presents the average house prices in the time range [input_year - 5, input_year +5], users need to submit year, the response is a bar graph whose x-axis represents year and y-axis represents price.
  Graph2 presents the average house prices in a particular suburb in time range [input_year-5, input_year +5], users need to submit suburb name and year, the response is a bar graph whose x-axis represents year and y-axis represents price
  Graph3 presents the top 5 lowest house prices suburb and distance less than the input distance, uses need submit a distance, the response is a bar graph whose x-axis represents suburb name and y-axis represents price.