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| Use Case ID: | 1 | | |
| Use Case Name: | Login | | |
| Created By: | Jeremy | Last Updated By: | Jeremy |
| Date Created: | 3/2/21 | Date Last Updated: | 3/2/21 |

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| Actor: | User, system |
| Description: | The user enters username and password to enter account for personalized housing suggestions |
| Preconditions: | User credentials must be authenticated |
| Postconditions: | User will be logged in and can view personalized financial scheme and property suggestions based on past viewed properties. |
| Priority: | 2 |
| Frequency of Use: | Every time the user wishes to save preferences and suggestions |
| Flow of Events: | 1) The user inputs username and password  2) System authenticates user credentials |
| Alternative Flows: | 1.AC.1:  1) User forgets username or password and requests for a reset via email.  2) System sends an email to user with verification code  3) System authenticates verification code and prompts for new username/password.  4) User updates new username/password and logins with credentials |
| Exceptions: | 1.EX.1:  1) User inputs wrong username/password  2) System displays error message and requests for re-input of credentials  3) After maximum of 3 wrong authentication, account will be locked. System sends reset email to user to request for change of password.  4) User changes password and log in using new credentials |
| Includes: | Authentication of user credentials |
| Special Requirements: |  |
| Assumptions: | User details must be kept private and secure |
| Notes and Issues: |  |

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| Use Case ID: | 2 | | |
| Use Case Name: | Check financial schemes | | |
| Created By: | Jeremy | Last Updated By: | Jeremy |
| Date Created: | 3/2/21 | Date Last Updated: | 3/2/21 |

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| Actor: | User, system |
| Description: | Allows the user to input income/CPF, and systems returns with suggested financial schemes/plan |
| Preconditions: | User must provide particulars like employment or average income. |
| Postconditions: | System will return with suggested financial schemes available |
| Priority: | 3 |
| Frequency of Use: | Once after some comparison and consideration of various properties |
| Flow of Events: | 1) User is prompted to input current income, available CPF and estimated monthly expenditure, and particulars like relationship or employment.  2) System filters through current housing financial schemes and lists a few suggested applicable schemes to help with purchase of property.  3) User can view additional information about the scheme and compare schemes available. |
| Alternative Flows: | 2.AC.1:  1) User is not applicable for any financial schemes after calculation  2) System will alternatively display a summarized calculation of possible loan amounts and repayment period. |
| Exceptions: | 2.EX.1:  1) User does not fill in required input details.  2) System will display error message and continue to prompt user for valid input, and no suggestions will be displayed |
| Includes: | Determining the eligibility of schemes for each user |
| Special Requirements: |  |
| Assumptions: | The user has to know his particulars such as average income. |
| Notes and Issues: |  |

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| Use Case ID: | 3 | | |
| Use Case Name: | View available properties | | |
| Created By: | Jeremy | Last Updated By: | Jeremy |
| Date Created: | 3/2/21 | Date Last Updated: | 3/2/21 |

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| Actor: | User, system |
| Description: | User can view available properties for sale or rent in different parts of Singapore and can also compare the prices of different properties. |
| Preconditions: |  |
| Postconditions: | System will have displayed updated property information. |
| Priority: | 1 |
| Frequency of Use: | Every time a user visits the website |
| Flow of Events: | 1) User selects option to buy/sell or rent a property  2) System generates a map with available properties as pin points on the map  3) User hovers the cursor over pin to view brief information on property, such as price and nearby amenities |
| Alternative Flows: | 3.AC.1:  1) User can select filters (sorted by district) to narrow down search for properties in selected district.  2) System will zoom into a smaller area to highlight available properties in selected district.  3) User hovers the cursor over pin to view brief information on property, such as price and nearby amenities  3.AC.2:  1) User can click on pin of property instead of hovering over to add selected property to a table for comparison.  2) System displays the selected properties in a table and displays the different properties side by side.  3) System also displays properties with similar prices in a grid below the comparison table.  4) User can select property from the suggested box instead of clicking from the map. |
| Exceptions: | 3.EX.1  1) User adds more than 4 properties to the table for comparison.  2) System displays an error message confirming if the user wants to cancel adding to table for comparison or replace the first property added to the table. |
| Includes: | Generates points on map to represent the properties available for sale or rent. |
| Special Requirements: |  |
| Assumptions: | 1) Using pin points on the map is more intuitive for users compared to a search bar.  2) Providing a more specific level of filtering during search will help users find |
| Notes and Issues: |  |

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| Use Case ID: | 4 | | |
| Use Case Name: | View property macros | | |
| Created By: | Jeremy | Last Updated By: | Jeremy |
| Date Created: | 3/2/21 | Date Last Updated: | 3/2/21 |

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| Actor: | User, system |
| Description: | Displays an overview of the overall market trends and prices |
| Preconditions: |  |
| Postconditions: | Market trends will be updated. |
| Priority: | 4 |
| Frequency of Use: | Only when the user wants to better understand the market conditions within a certain timeframe |
| Flow of Events: | 1) User selects the option to view macros  2) System displays graphs to visualize the various aspects of the property market, including price trends and property market indexes |
| Alternative Flows: | 4.AC.1:  1) User filters the transaction or rental trends graph by district or property type  2) System will display modified trends for selected district or property type rather than the market. |
| Exceptions: |  |
| Includes: | Generating and displaying the market trends |
| Special Requirements: | The trends need to be updated based following the accuracy of available market data. |
| Assumptions: | There will be more advanced users who would want market analysis to aid in their decision to purchase a property. |
| Notes and Issues: |  |