

Overview

Name of Application: HousingInfo

Type of Application: Web

Problem Formulation

Motivation

Housing affordability is a key social concern of residents of Singapore. In a survey done in December 2022 by multinational market-research company YouGov, two out of three Singaporeans expressed a need for the government to place greater emphasis on the affordability of housing.

As Singapore strives towards a Smart Nation, the government has open-sourced various data, including real estate transactions. However, the real estate transaction data are currently not translated into a digestible manner for the mass public. Potential home sellers/buyers may find it difficult to estimate their property value when they are trying to sell/buy the house.

Aim

We aim to complement the Smart Nation efforts in creating a Digital Society by translating the open-source data into insights so that:

1. Buyers can have a benchmark pricing of their desired flats and avoid overpaying
2. Sellers can have a benchmark pricing of their flats and avoid undervaluing
3. Public has a clearer idea of how different features (e.g. level, proximity to train station) affect house prices
4. Enhance transparency in the housing market to deter unscrupulous house brokers

Constraints

This project will currently only apply to the public housing flats.

Project Mission Statement

The Z57 team will develop a web application that translates data.gov open-source housing resale transaction information for potential home buyers/sellers to gain data insights and perform ad-hoc queries on resale houses pricing. This project will be considered completed when it has been tested internally by the Z57 team and approved by the Lab TA. This project serves to enhance transparency in the housing market and help potential buyers/sellers make more informed pricing decisions.

Problem Stakeholders Developers Users Outcomes and benefits

Functional Requirements

Users will be able to view the housings on a dynamic map (Google Map API) and see pop up pins.

Users will be able to view more detailed information of a housing by clicking on a pin

The system must show all the prices of houses as per the user's query

The system must be able to filter out houses with specific flat type

The system must ask the user for their preferred range of prices

The system must be able to filter the houses by prices, neighbourhoods

The system must be able to provide additional data insights as to how different each house is based on neighbourhood, nearby facilities.

The system must be able to discern valid postal codes and price ranges, alerts user if invalid postal code or no houses in that price range

Non-Functional Requirements

Users must be able to search for records and get results within 5 seconds.

The user interface should be readable and easy for the user to navigate.

The system shall be available in simple English

The selected pin must be highlighted in a different colour to make the user's selection known to him

The user interface should be consistent with a colour palette across pages

Data Directory

Area/Neighbourhood	Specific areas whose information is available to us from the API
Flat Type	Specific types of flats with different sizes and rooms
Postal Code	The 6-digit postal code is made up of the sector code and the delivery point. The sector is represented by the first two numbers of the postal code. The remaining four numbers define the delivery point within the sector. e.g. 53 Ang Mo Kio Avenue 3.