

Functional requirements

1. Users shall be able query information on BTO and resale flats
 - 1.1. Users shall be able to use location to query BTO and resale flats
 - 1.2. Users shall be able to use preferred having nearby amenities to query BTO and resale flats
 - 1.2.1. Users shall be able to use preferred having nearby hawker centres to query BTO and resale flats
 - 1.2.2. Users shall be able to use preferred having car park to query BTO and resale flats
 - 1.2.3. Users shall be able to use preferred nearby having public transport to query BTO and resale flats
 - 1.2.3.1. Users shall be able to use preferred having nearby buses stops to query BTO and resale flats
 - 1.2.4. Users shall be able to use preferred having nearby fitness amenities to query BTO and resale flats
 - 1.2.5. Users shall be able to use preferred having nearby schools to query BTO and resale flats
 - 1.3. Users shall be able to use price range to query BTO and resale flats
 - 1.4. Users shall be able to use flat-type to query BTO and resale flats
 - 1.5. Users shall be able to use application rate to query BTO flats only
 - 1.6. Users shall be able to use age of building to query resale flats only
2. System must to display list of all BTO and resale flats that match the users' queries
3. Users shall be able to select a specific BTO and resale building to view its information
4. System must be able to display information on the selected BTO and resale flat.
 - 4.1. System must display general location of selected flat
 - 4.2. System must display the name of project corresponding to the selected flat
 - 4.3. System must display the price range of selected flat
 - 4.4. System must be able to display a map displaying surrounding environment within 3km radius of selected flat
 - 4.4.1. Map must display the precise location of selected flat
 - 4.4.2. Map must display all nearby amenities
5. System shall give users the option to calculate which flats they can afford
 - 5.1. Users shall be able to input their CPF savings
 - 5.2. Users shall be able to input their cash savings
 - 5.3. Users shall be able check if they are eligible for housing grants
 - 5.3.1. Users shall be able to input type of flat they intend to purchase
 - 5.3.2. Users shall be able to input their household type
 - 5.4. Users shall be able to input any housing loan they intend to take up
6. System must be able to display a list of flats the user can afford based on above calculation
7. System must recommend choices of flats for the user.
 - 7.1. System must display at least 5 choices for the user.
8. System must allow users to reset their choices.

Non-functional requirements

1. System shall be able to display information within 1 second of the user's submission of the query.
2. Users shall be able to identify crucial info (e.g. image of HDB) within 3 seconds.
3. Users should be able to easily choose their preferences without complications.
4. The database must be replaceable with any commercial NoSQL product.
5. The website must maintain the same functionalities across different platforms.
6. The website shall provide an option to switch between light and dark modes.
7. The website must be able to reload into a fresh state after 5 seconds of timeout.

UI Mockup link

<https://www.figma.com/file/ExXk3qJ2bCLFV9NShomNJT/UI-Mockup?node-id=0%3A1&t=al7EBR7YBOUGVidG-1>