

## Software System Story

### HomeQuest: A Web Portal for Real Estate Search

#### Introduction

**HomeQuest** is a modern, user-centric web application designed to facilitate its user to search and view the available real estate options for purchase and rental. Whether users are looking to buy, sell, or rent properties, HomeQuest provides a seamless experience to offer property recommendations and advanced search functionality.

See notes on possible extension of project features and use of generative AI on page 3.

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**1. Property Search** is enabled and filtered based on following parameters:

#### Search for purchase

- Location (city and postal code)
- Price
- Size
- Number of rooms
- Type of Property (residential or commercial)

#### Search for rent

- Location (city and postal code)
- Price for rental
- Duration of rent (minimum and maximum)
- Size
- Number of rooms
- Type of Property (residential or commercial)

Anyone can search for available properties, while the property owners must register with HomeQuest to list their properties for selling or rental

#### 2. Seller Profile

- **Mandatory Information:** Each seller must provide essential data during registration, which includes:
  - Full name
  - Email address (used for profile authentication)
  - Date of birth
  - Consent to share location information while using the application

- **Optional Information:** Users have the option to enhance their profiles with additional details, including:
  - Profile photo (which can be blurred or unblurred at any time)
  - Phone number
  - Map based location of the property for

Authentication of user profiles can be accomplished through the provided email address or phone number.

### 3. Property Listing

The property for selling or rent out must be registered in the HomeQuest portal so it can be searched and viewed by the users. The property can be listed using the following information.

- Location (shown on the map)
- Price
- Size
- Number of rooms
- Type of Property (residential or commercial)
- Photographs of the property (atleast one photo is mandatory)

### 4. Verified Properties

While verification of profiles is optional, it provides users with a verification badge on their listed properties that indicates their authenticity. The buyer can upload official registration document (property document issued by state) for system verification.

The property search can be filtered using an additional parameter 'Verified Only' that only list verified properties to the viewers.

For the project, a dummy document can be uploaded to the system to have a few properties that are verified and few that are not.

### Seller Types

The application differentiates between user types to accommodate varying levels of access:

- **Free Users:** These users can utilize the portal for free, however; with limited functionalities. They can only list 2 properties for selling or rental.
- **Gold Users:** Gold users enjoy unlimited listings of their properties. Gold users must pay a weekly, monthly, quarterly, or yearly subscription at the price of €15, €40, € 60, and €100, respectively.

The property viewers can provide a like and comment to specific property listing.

Optional: Bilingual use support for content display in English and Deutsch language.

## Notes

1. **Extension of project:** The design scenario for TutorLink above reflects the minimal requirements for a project. You are welcome to add any additional features that can be a value addition to the project and additional features will be considered as a plus during the individual and group assessment of the deliverables.
2. This assessment is covered under the relevant sections of Lancaster University's Manual of Academic Regulations and Procedures<sup>1</sup>, of particular relevance are the 'General Regulations for Assessment and Award' and 'Academic Malpractice Regulations and Procedures'. Late submissions will be downgraded as per these regulations.
3. **Generative AI tools are NOT permitted:** AI Category RED<sup>2</sup>. The use of generative AI tools (such as ChatGPT or similar) is not permitted for this assessment. This includes its use for either the code or the report.

For further questions or discussion feel free to reach out during the session or via email at: [a.ahmad13](mailto:a.ahmad13)

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<sup>1</sup> <https://www.lancaster.ac.uk/academic-standards-and-quality/marp/>

<sup>2</sup> <https://portal.lancaster.ac.uk/ask/administration/policies-regulations/university-position-on-artificial-intelligence/#d.en.599816>