Design and implement a real estate listing management application using an object-oriented approach.

The application should cater to a real estate company's needs for managing their residential listings currently stored on paper forms.

Requirements:

• Data Management:

- Capture and store details like owner name (first & last), address, price, square footage, and number of bedrooms for each property.
- Organize data efficiently to handle multiple listings per owner (using combined first and last name as a key).
- Store buyer details (name, phone number, email).
- Associate interested buyers with specific properties.

Functionality

- Add a new property listing.
- Update existing listing information.
- Delete a property listing.
- Search and display details of a specific property based on the owner's name.
- Generate an alphabetical list of all property owners.
- o Retrieve and display information for a specific buyer, including their list of interested properties.
- Display the list of potential buyers interested in a specific property.

• Design Principles:

• Employ object-oriented principles like encapsulation and abstraction to achieve code reusability, flexibility, and maintainability.

• Diagrams:

- Create a UML class diagram using the draw.io tool to illustrate the classes and their relationships.
- Develop a user case diagram using draw.io to depict the interactions between user(s) and the application functionalities.