Problem Statement

Build an application for a Property Management Business with features such as registering a property, listing a property, and searching properties based on requirements.

Requirements

- Users - Users who will list their properties or rent out listed properties
- Property Listing:
    - Allow users to list their properties for sale etc
    - View Own Listings: Users can review the properties they have listed.
- Property Search: Implement a search functionality for users to find properties based on:
    - Location (a case-insensitive exact match is acceptable).
    - Price range.
    - Listing type (either for sale or rent).
    - Property size.
    - Number of bedrooms (e.g., 1BHK, 2BHK, 3BHK).
    - Sorting options by price or size in ascending order.
    - Users can utilize any combination of the above criteria for searching.

Implementation Guidelines

- Input can be hard-coded in a main method
- Output to STDOUT.
- Store data in-memory; database use is prohibited.
- Internet access should be limited to syntax lookup.

- Choose Go or Java as programming language. Name your project files with your name and email and convert to a zip, detailing any dependencies in your project readme.md.
- Don't push to github, this solution code will be proprietary to Narvar

Performance Expectations

- Your code must be in demonstrable runnable condition even if functionally not 100% complete
- Handle edge cases and fail gracefully, e.g., displaying error messages for non-existent properties.
- Ensure your code follows good object-oriented design principles, focusing on readability, modularity, testability, and extensibility.
- No database usage. All objects are kept in memory

Sample Inputs and Outputs

- The format for inputs and outputs can be adjusted as long as functionality remains unchanged.

Example Functionalities:

User Registration:

- Input: Jack
- Output: User registered successfully.

Property Listing (username, property details...):

- Input: Jack, 3BHK for sale, Bellandur, 90L, sell, 1800 sqft, 3
  (user details, name of listing, location, price, type, dimensions, BHK)
- Output: Property listed successfully.
- This is just a sample input, you can directly create POJOs and run it from the driver function. No need to actually parse a string like this

Property Search (criteria...):

- Input: Indiranagar, 25000-30000, rent, 1500 sq ft, 2, price
- Output: Display matching property details.
- Here the input needs to be in string format as mentioned above