Programming Project / C++ – Store Management & Interaction System –

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I. Task Description

Student 1 is responsible for managing the properties:
- Adding, deleting, modifying properties (price, number of rooms, etc.)
- Viewing purchase history

Student 2 is responsible for interacting with the system:
- Viewing available properties (apartments or houses)
- Adding properties to favourites
-Purchasing properties

II. Data Structures Used by the Team

The following structures will be used:

- Property, which is used for apartments: float price, int:rooms,bathrooms,kitchens,parcking_space

- Property2, which is used for houses: float price, int:rooms,bathrooms,kitchens,yard_size

III. File Structure

I will read everything from a single file and I will write in the same file
-input.txt
<number_of_apartments> <number_of_houses>
<apt1 price> <rooms> <bathrooms> <kitchens> <parking>
<apt2 price> ...
...
<house1 price> <rooms> <bathrooms> <kitchens> <yard_size>
<house2 price> ...
...

IV. Interacting with Executables

    App 1 will expose the following options:

./app_1.exe add_apartment <price> <rooms> <bathrooms> <kitchens> <parking>

Adds a new apartment listing to the system.

./app_1.exe add_house <price> <rooms> <bathrooms> <kitchens> <yard_size>

Adds a new house listing to the system.

./app_1.exe delete_apartment <index>

Removes an apartment from the listings by index.

./app_1.exe delete_house <index>

Removes a house from the listings by index.

./app_1.exe modify_apartment <index> <price> <rooms> <bathrooms> <kitchens> <parking>

Updates the specified apartment's details.

./app_1.exe modify_house <index> <price> <rooms> <bathrooms> <kitchens> <yard_size>

Updates the specified house's details.

./app_1.exe view_properties

Displays all current apartment and house listings.

./app_1.exe view_purchases

Displays all purchased properties (apartments and houses).

App 2 will expose the following options:

./app_2.exe view_listings

Shows all available apartments and houses for viewing.

```
./app_2.exe view_apartment <index>
```

Shows detailed information for the selected apartment.

```
./app_2.exe view_house <index>
```

Shows detailed information for the selected house.

```
./app_2.exe favourite_apartment <index>
```

Adds an apartment to the favourites list.

```
./app_2.exe favourite_house <index>
```

Adds a house to the favourites list.

```
./app_2.exe buy_apartment <index>
```

Purchases the selected apartment and removes it from listings.

```
./app_2.exe buy_house <index>
```

Purchases the selected house and removes it from listings.

```
./app_2.exe show_favourites
```

Displays all saved favourite properties.

```
./app_2.exe show_bought
```

Displays all bought apartments and houses.