

# 1. INTRODUCTION

---

To create a real estate My-Home application like Magic-bricks which will assist user to home buying or renting decision. The application is to be developed as Desktop Application. There are 2 entities Admin and User.

## 1.1 PURPOSE

1. Admin and user be able to login into the application.
2. User be able to search for the estate.
3. Provide all advance filters needed for the search.
4. Show at least 5 images of the property in property details.
5. User be able to download brochure about the estate.
6. Admin be able to see all the estates user visited.
7. If user shows interest (like downloading brochure) in property, then admin be notified.
8. Add various statistics so admin can view and make business strategy.
9. Handle data and errors properly. Show appropriate messages to user.
10. Display good input, output messages and reports in proper format.
11. Security features be implemented wherever possible. For example, user passwords can be stored in encrypted format.

### Configuration files

Sr. No	File Name	Description
1.	properties.txt	To maintain information about properties
2.	photos.txt	To maintain Photos of property along with filename
3.	brochures.txt	To maintain Brochures along with filename
4.	users.txt	To store User information
5.	visited.txt	To maintain visited property details are viewed by user
6.	message.txt	To store messages for admin
7.	owners.txt	To maintain property owner details

## 2. ARCHITECTURE

---

### 2.1 MODULE 1

- Data files

Create initial data in these files as comma separated fields. Each line stores one record.

- Maintain information about properties in “properties.txt” file. Property is identified by Property ID which is auto increment number.
- Photos of property along with filename where photo is present, property ID is stored in “photos.txt” file.
- Brochures along with filename where brochure is present, property ID is stored in “brochures.txt” file.
- User information is stored in “users.txt” file. User is identified by username which is given by user at the time of registration.
- 

In addition to above master files following transaction files be maintained by My-Home.

- Maintain “visited.txt” file containing username, Property ID, Date when visited whenever property details are viewed by user.
- Maintain “message.txt” file to store messages for admin. For example – when broacher is downloaded or photos are browsed by users.

#### 2.1.1 Functionality Details

Following is a list of functionalities of the system.

1. When My-Home starts it displays Following Screen –

.....Login Screen.....

1. Login as admin
2. Login as user
3. Register new user
0. Quit

Enter your option = <option>

**option = 1 (Login as admin)** - By default, admin/admin is username/password of administrator. When this option is selected “Admin menu” will be displayed.

**option = 2 (Login as user)** - username and password will be asked and verified with “users.txt” file. When this Option is selected “Property menu” will be displayed.

**option = 3 (Register new user)** - All information about user will be asked and stored in “users.txt” file.

## 2. When admin logs in My-Home displays “Admin Menu”

.....Admin Menu.....

1. Add a property
2. Add owner details
3. Add brochure
4. Add photos
5. View visited users
6. View interested users
0. Quit

Enter your option: <option>

**option = 1 (Add a property)** - Property details will be asked and stored in file “properties.txt”. Property is identified by Property ID which is auto increment number.

**option = 2 (Add owner details)** - Property owner details will be asked and stored in file “owners.txt”. Property ID + Owner ID will uniquely identify a record in this file. There can be multiple owners for a property. Within property Owner ID is auto increment number.

**option = 3 (Add brochure)** - Brochure details will be entered by admin and stored in “brochures.txt” file. Property ID + Brochure ID will uniquely identify a record in this file. There can be multiple brochures for a property. Within property Brochure ID is auto increment number.

**option = 4 (Add photos)** - Photos details will be entered by admin and stored in “photos.txt” file. Property ID + Photo ID will uniquely identify a record in this file. There be at least 5 photos for a property. Within property Photo ID is auto increment number.

**option = 5 (View visited users)** - Admin will enter Property ID, this option will display number of users who browsed that property listing along with usernames from “visited.txt” file.

**option = 6 (View interested users)** - Admin will enter Property ID, this option will display number of users who browsed that property listing along with usernames from “message.txt” file.

## 3. When user logs in My-Home displays “Property Menu”

.....Property Menu.....

1. List properties by area
2. List properties by pin code
3. List properties to sell within given price range

<provide at least 10 filters on property attributes>

11. Download Brochure

12. View Photos

0. Quit

Enter your option: <option>

Option 1 to 10 be implemented as filters on data present in all txt files maintained by My-Home

**option = 1:** list by area in sq.

**option = 2** list by pin code

**option = 3:** list by price

**option = 4:** list by new

**option = 5:** list by

resale **option = 6:** list by

buy **option = 7:** list by

rent

**option = 8:** list by no. of rooms

**option = 9:** list by no. of city/state

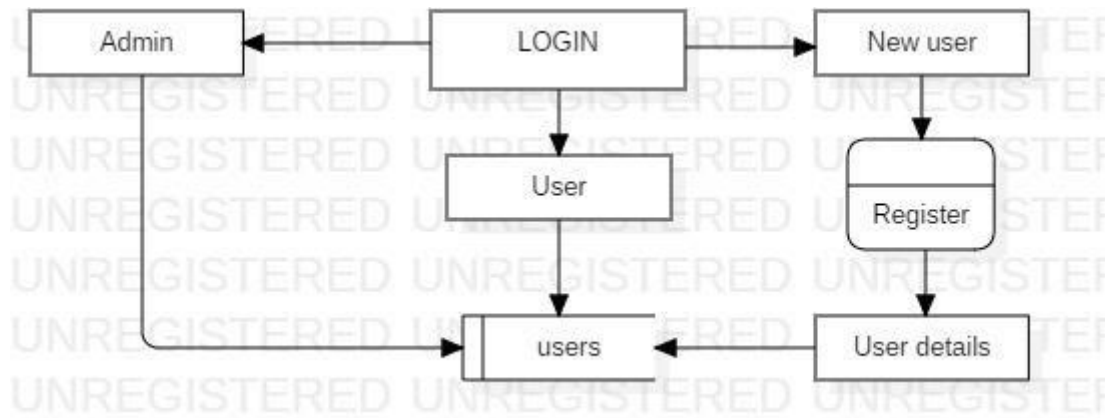
**option = 10:** list by project type (flat, bungalow, villa, etc)

**option = 11 (Download Brochure)** - Ask for Property ID from user and display brochure using information in "brochures.txt" file. We provide option to download brochure.

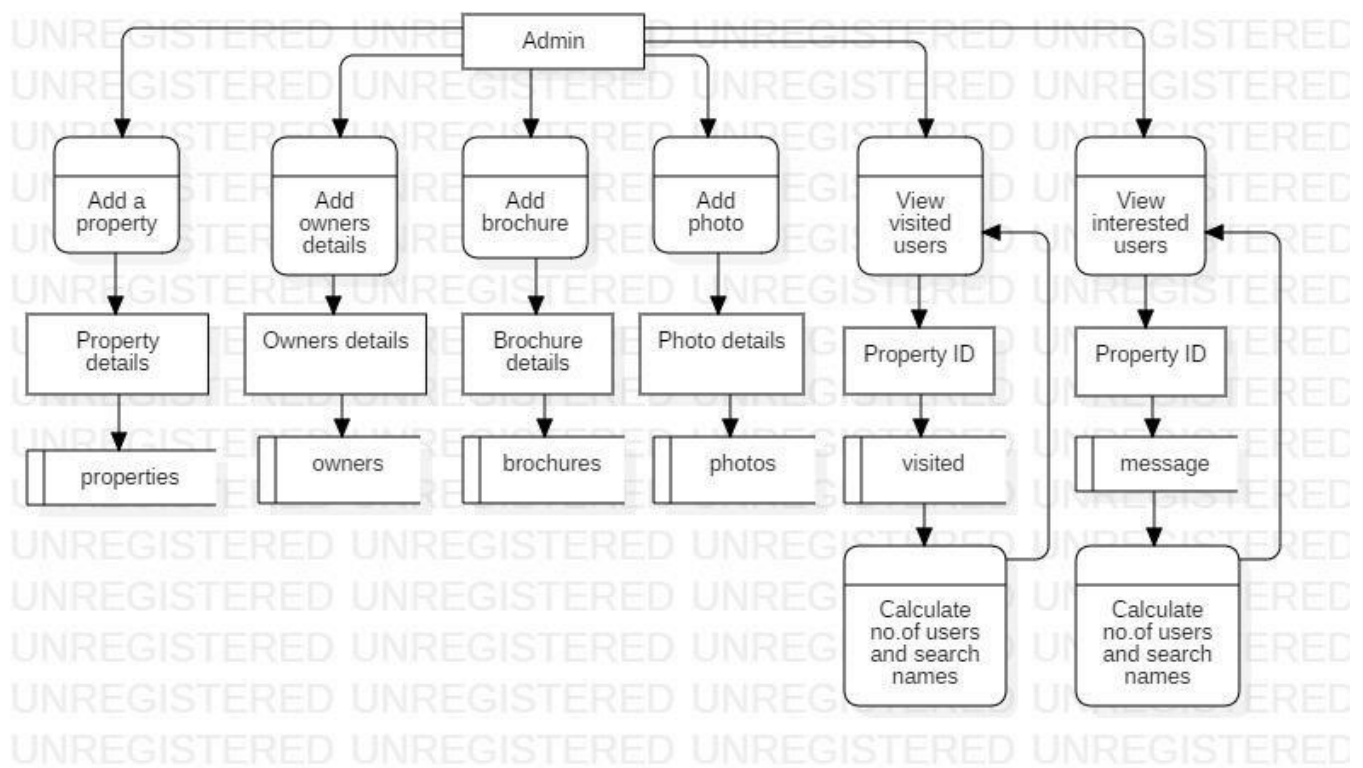
**option = 12 (View Photos)** - Ask for Property ID from user and display photos using information in "brochures.txt" file. We provide option to browse photos back and forth.

## 2.1.2 Data Flow Diagram

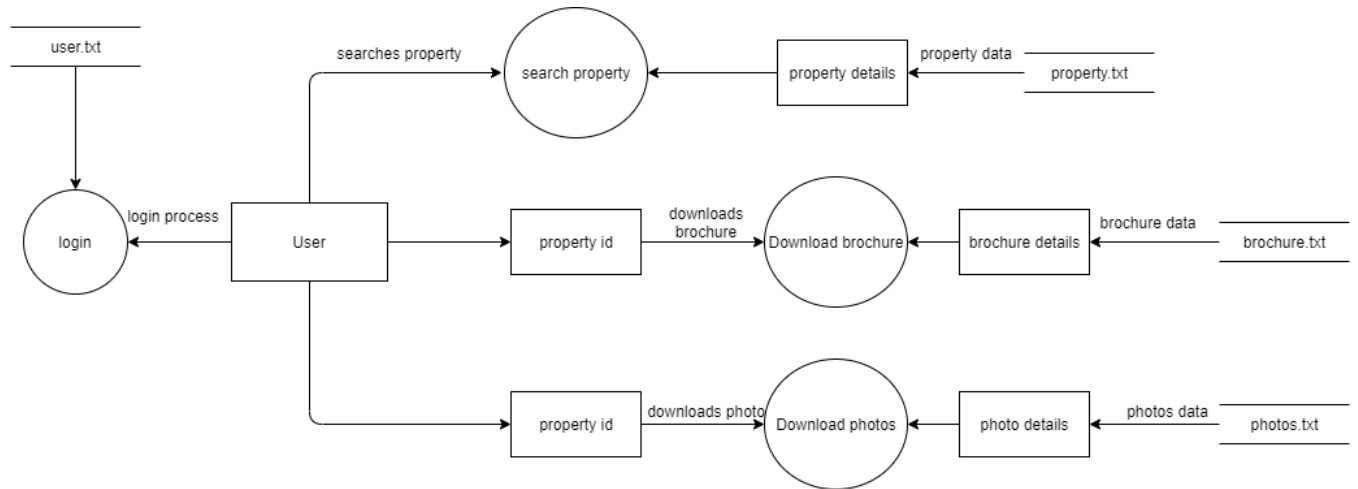
LOGIN:



ADMIN:

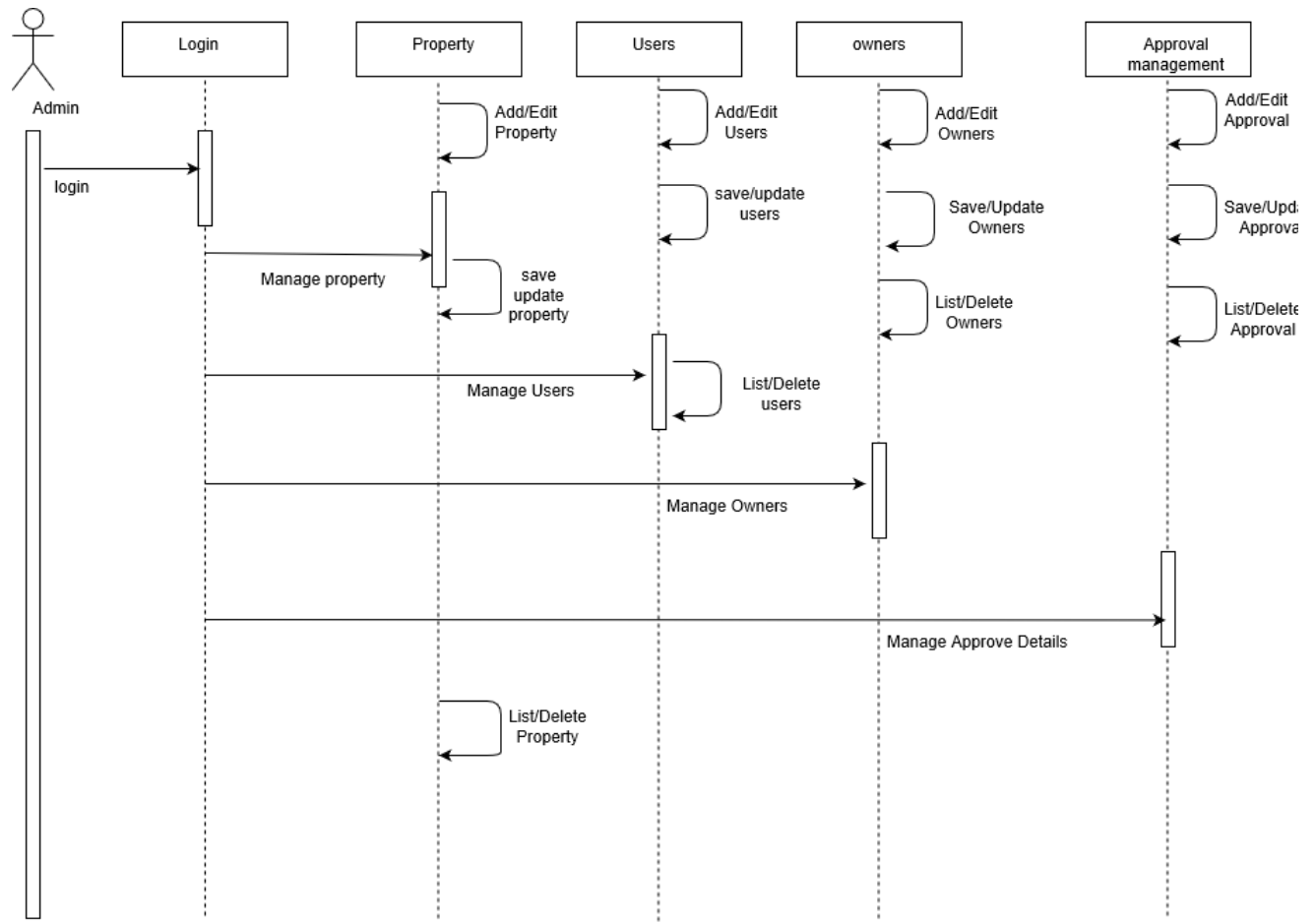


## USER:

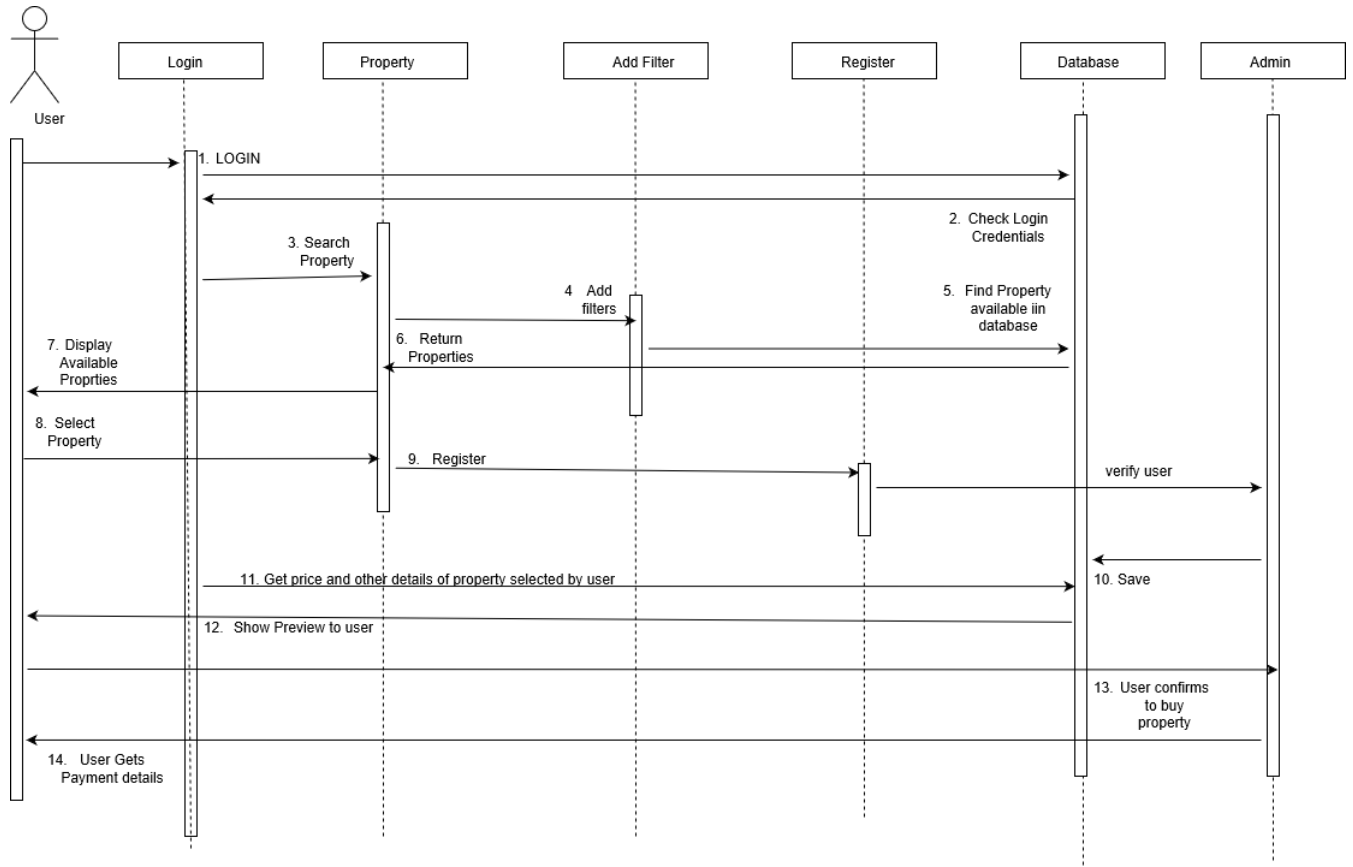


### 2.1.3 Sequence Diagram

ADMIN:

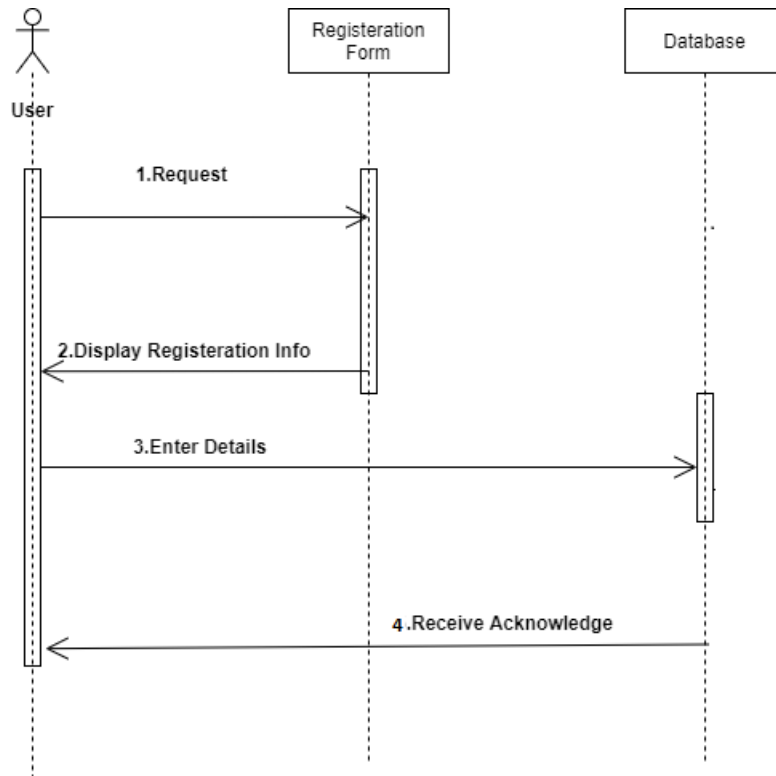


USER:

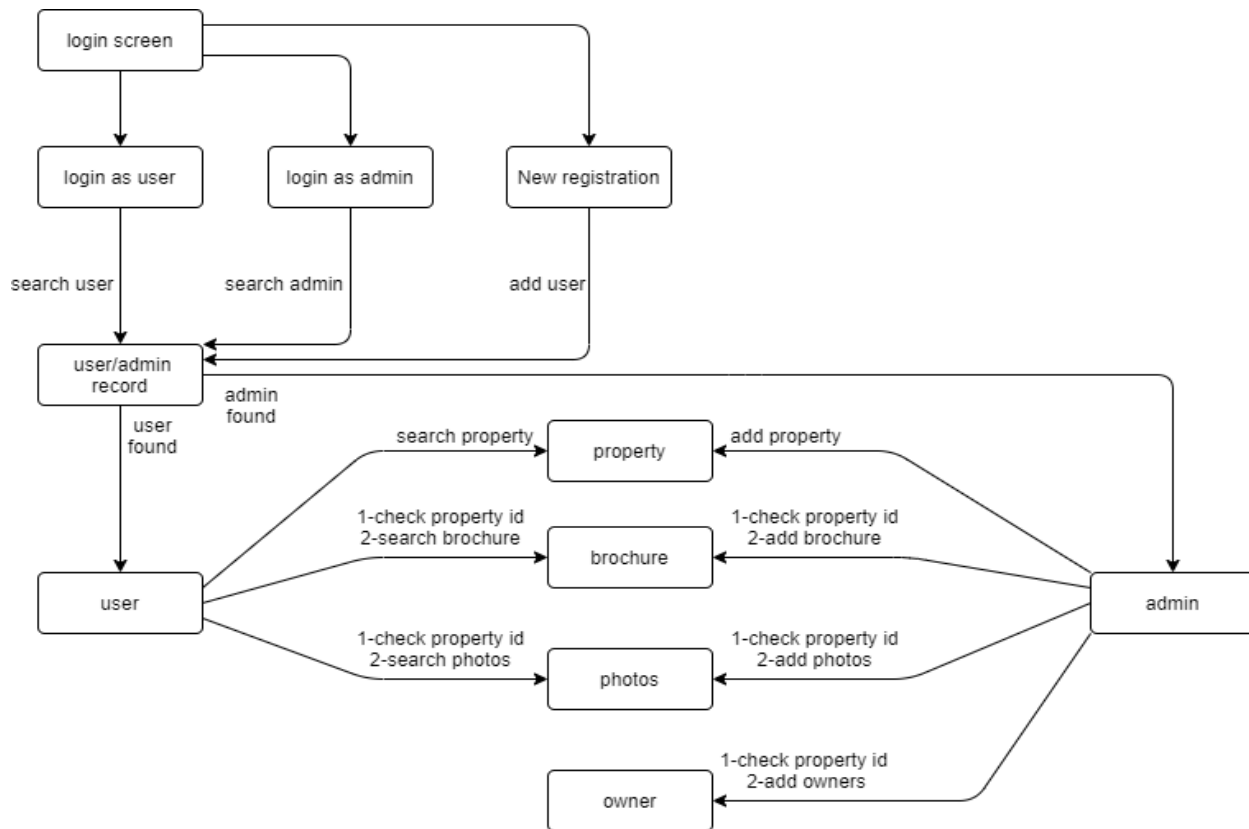




## ADD NEW USER:



## 2.1.4 Communication

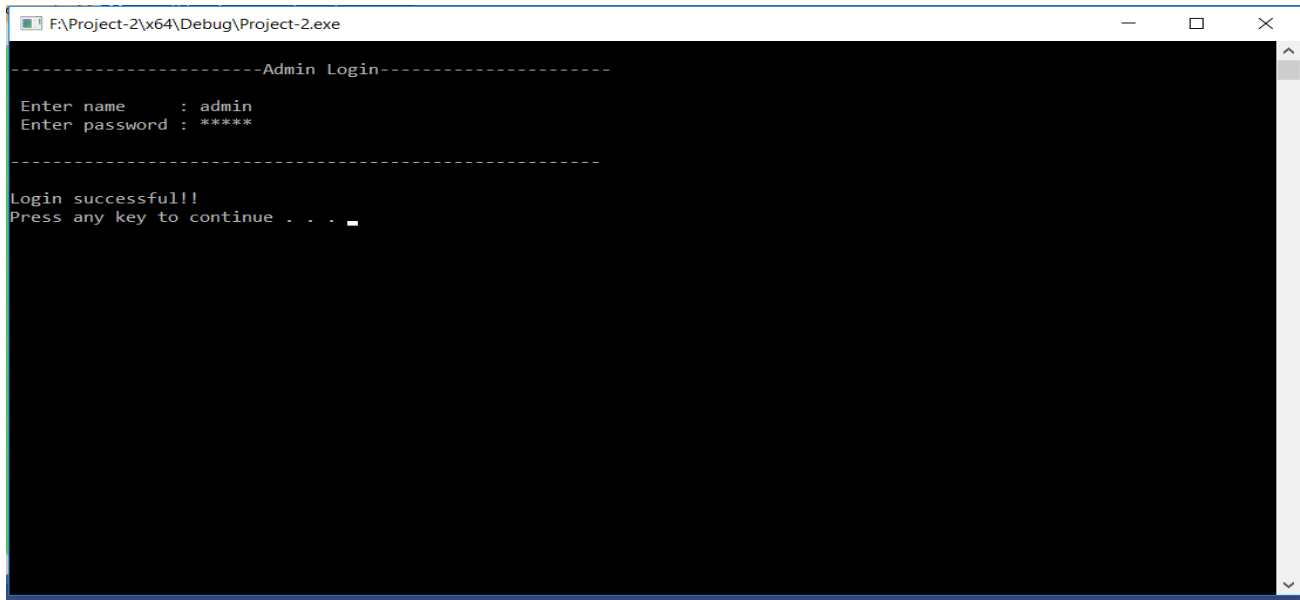


### 3. SCREEN LAYOUT

---

**ADMIN:**

**Login:**



```
F:\Project-2\x64\Debug\Project-2.exe

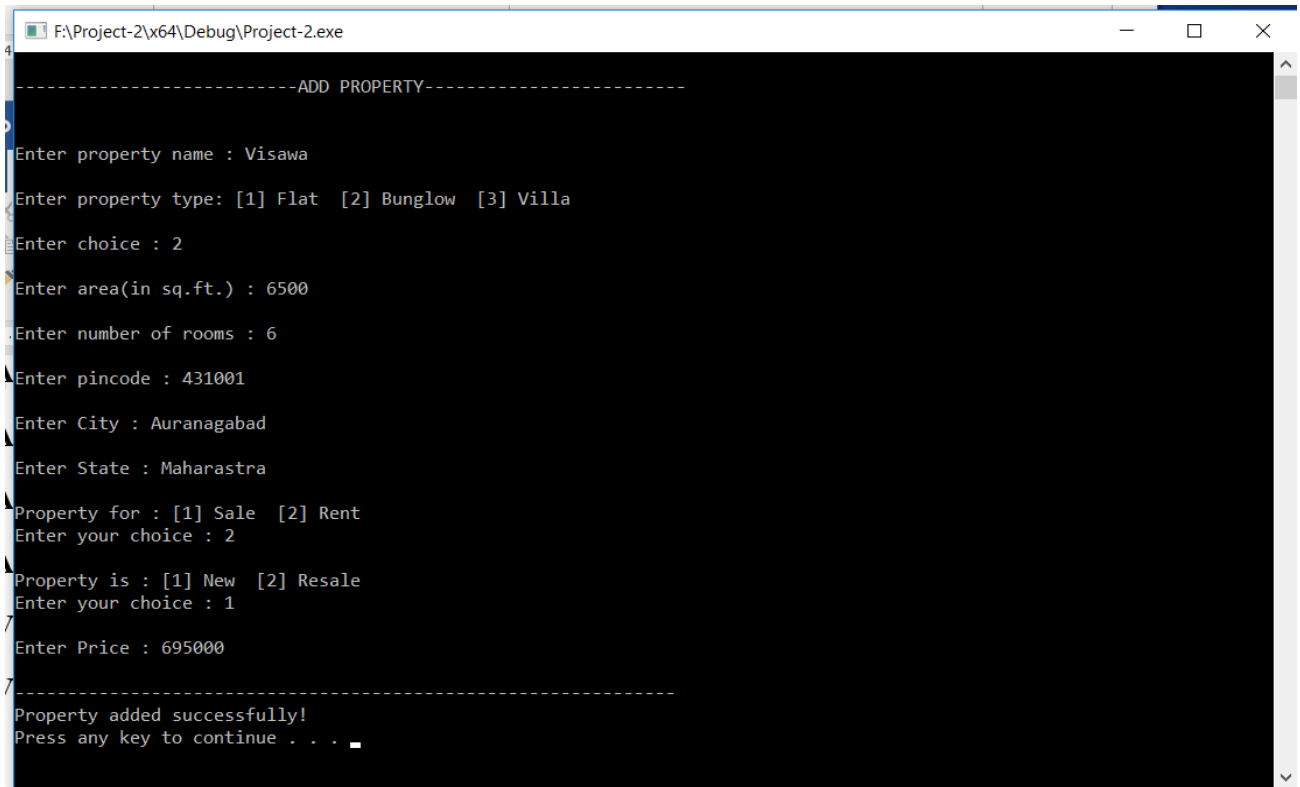
-----Admin Login-----

Enter name      : admin
Enter password  : *****

-----

Login successful!!
Press any key to continue . . .
```

**Add property:**



```
F:\Project-2\x64\Debug\Project-2.exe

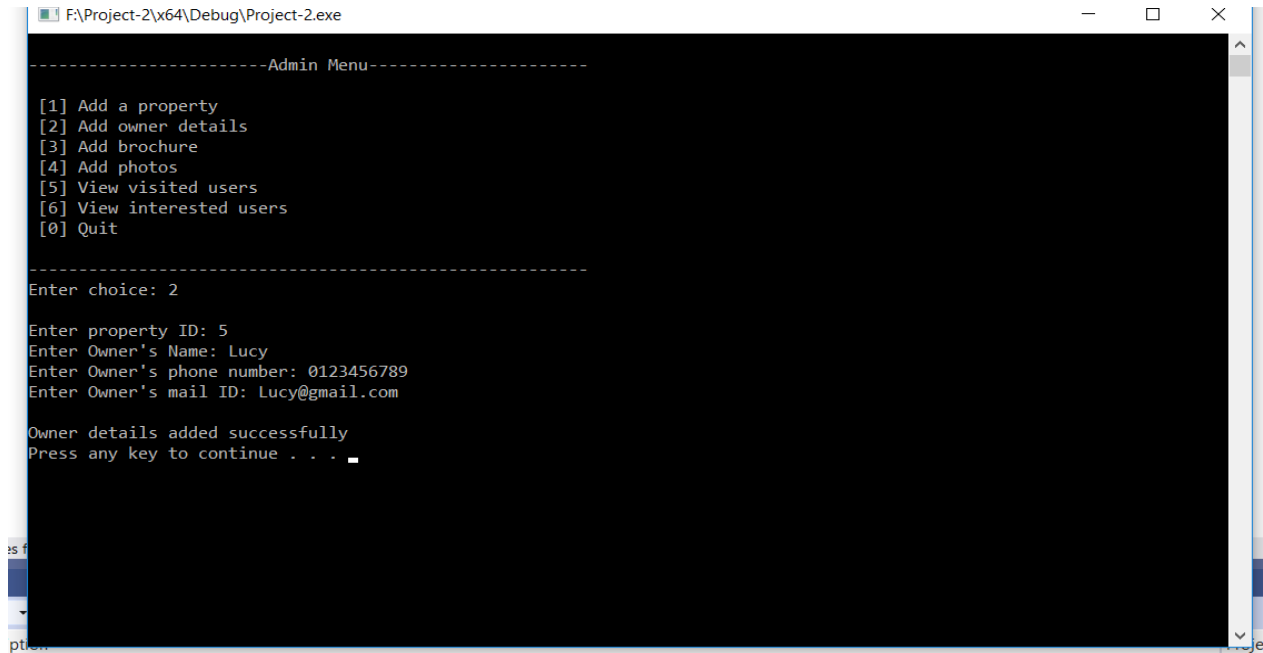
-----ADD PROPERTY-----

Enter property name : Visawa
Enter property type: [1] Flat  [2] Bungalow  [3] Villa
Enter choice : 2
Enter area(in sq.ft.) : 6500
Enter number of rooms : 6
Enter pincode : 431001
Enter City : Auranagabad
Enter State : Maharastra
Property for : [1] Sale  [2] Rent
Enter your choice : 2
Property is : [1] New  [2] Resale
Enter your choice : 1
Enter Price : 695000

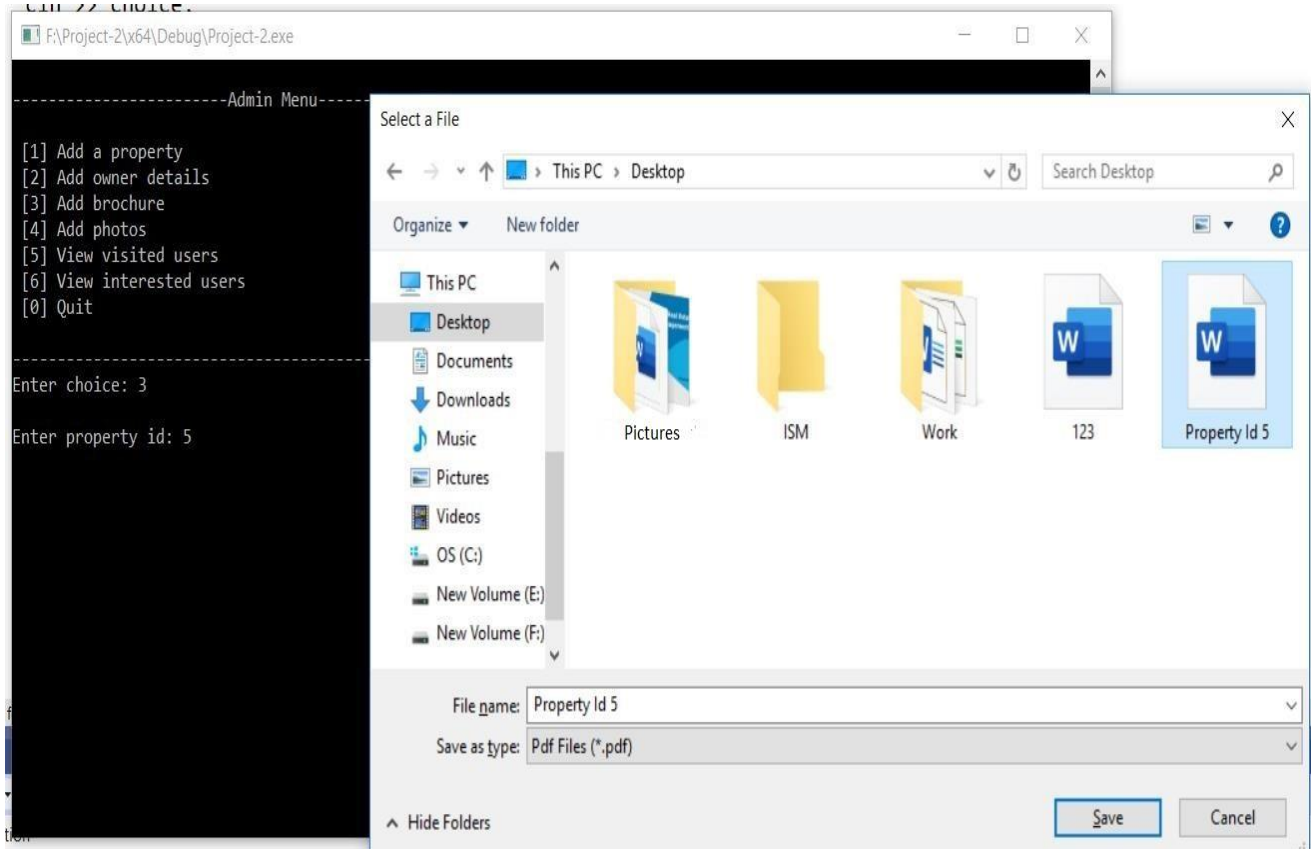
-----

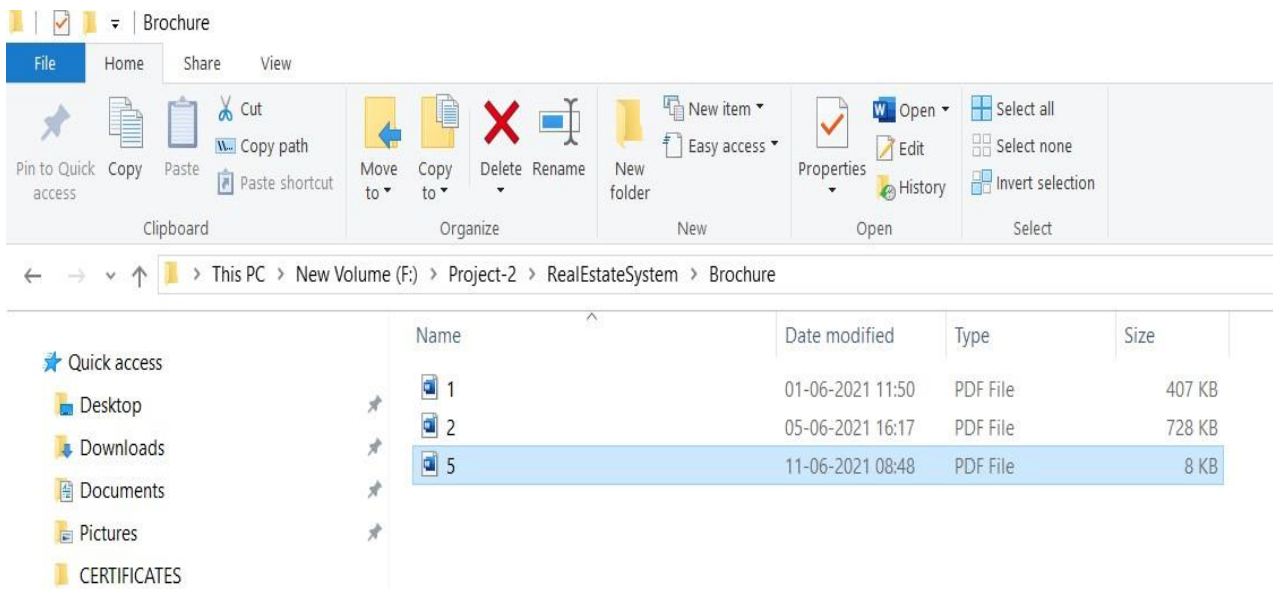
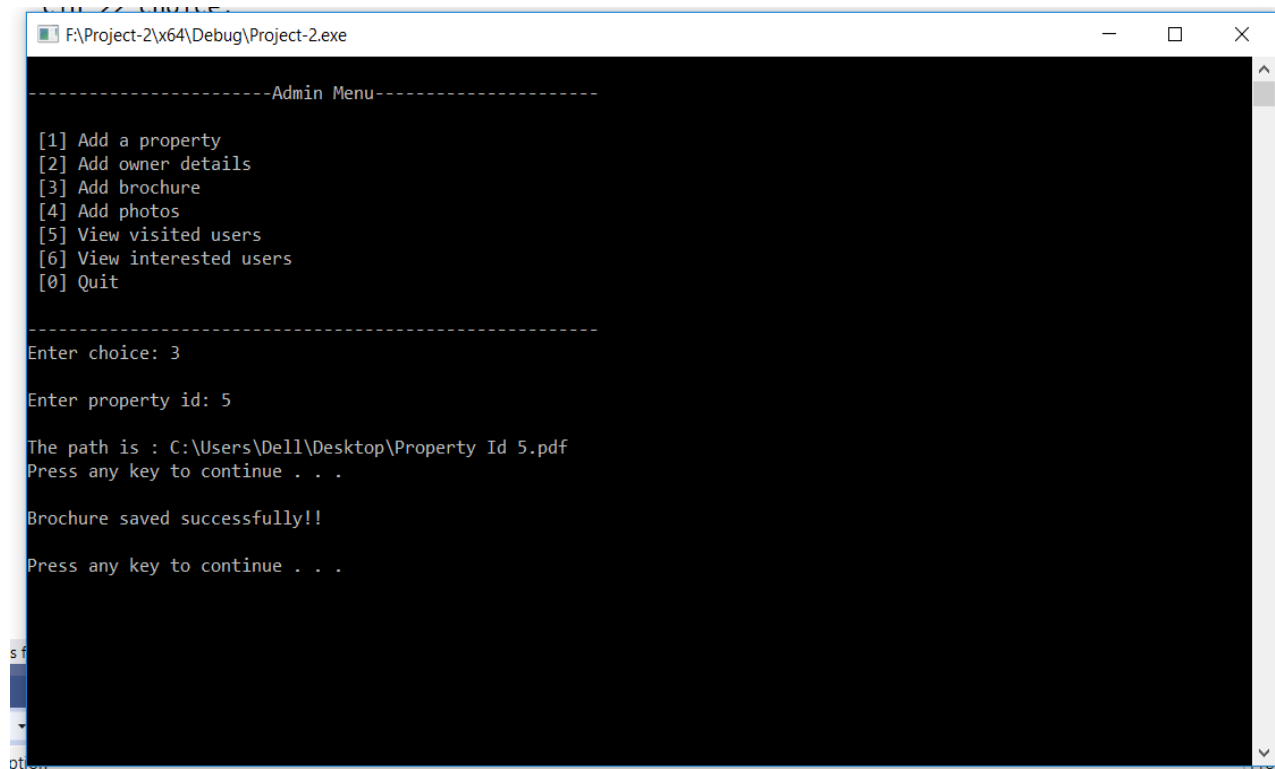
Property added successfully!
Press any key to continue . . .
```

### Add owner details:



### Add brochure:





## Add photos:

```
F:\Project-2\Debug\Project-2.exe
-----Admin Menu-----
[1] Add a property
[2] Add owner details
[3] Add brochure
[4] Add photos
[5] View visited users
[6] View interested users
[0] Quit

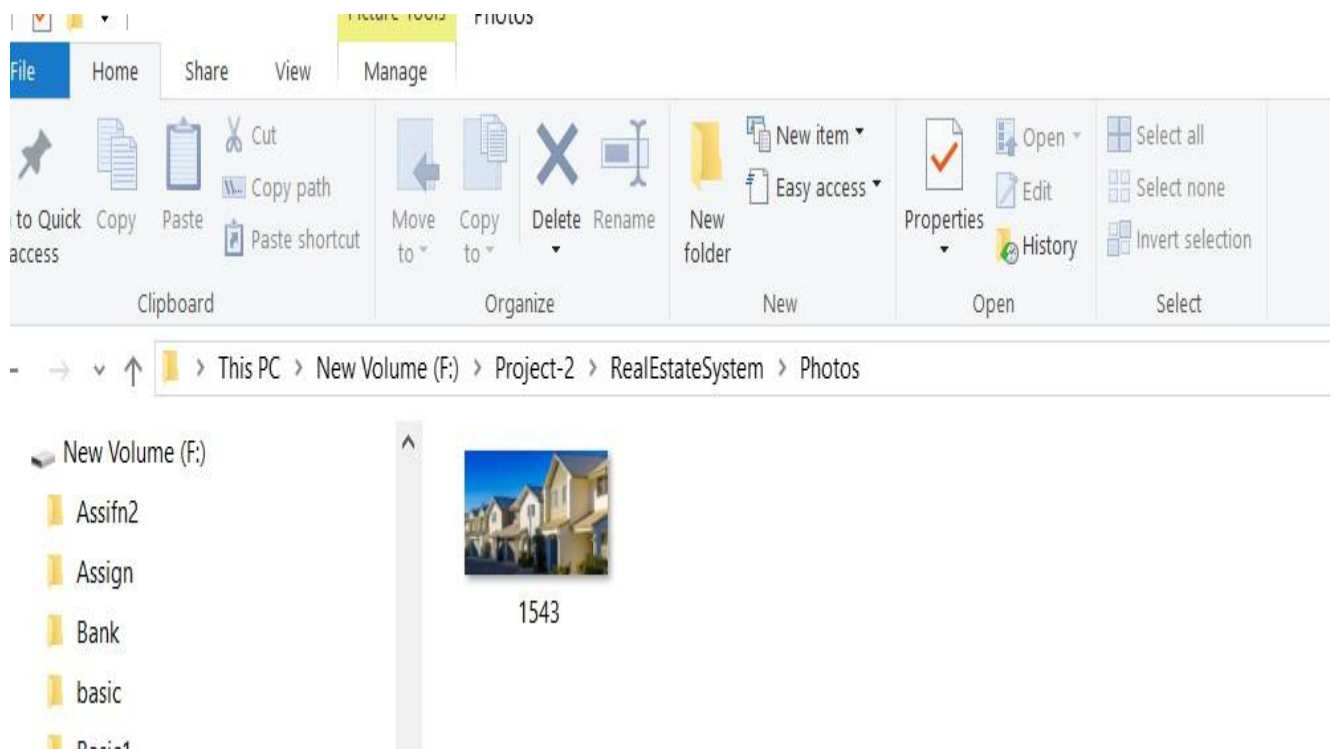
Enter choice: 4

Enter property id: 5

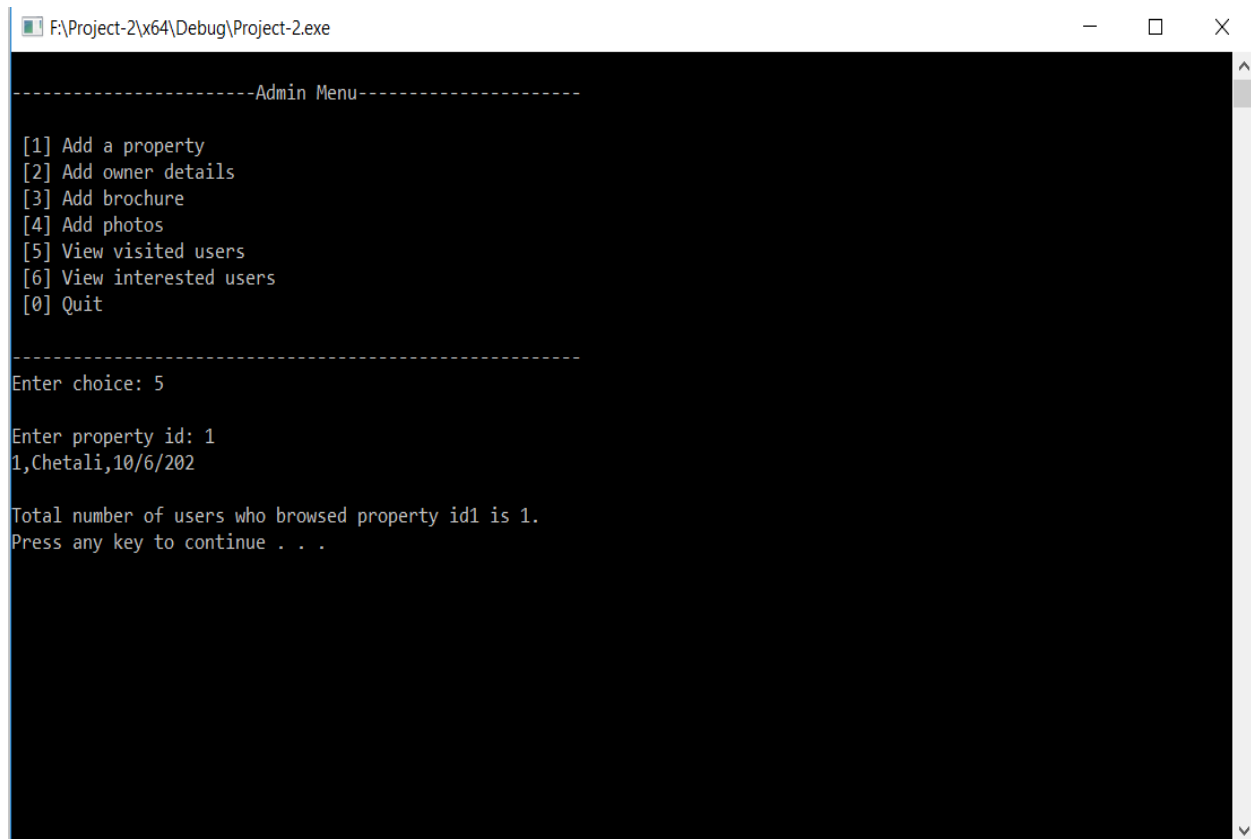
The path is : F:\5.png
Press any key to continue . . .

Image saved successfully!!

Press any key to continue . . .
```



### View visited users:



```
F:\Project-2\x64\Debug\Project-2.exe

-----Admin Menu-----

[1] Add a property
[2] Add owner details
[3] Add brochure
[4] Add photos
[5] View visited users
[6] View interested users
[0] Quit

-----

Enter choice: 5

Enter property id: 1
1,Chetali,10/6/202

Total number of users who browsed property id1 is 1.
Press any key to continue . . .
```

### View interested user:



```
F:\Project-2\x64\Debug\Project-2.exe

-----Admin Menu-----

[1] Add a property
[2] Add owner details
[3] Add brochure
[4] Add photos
[5] View visited users
[6] View interested users
[0] Quit

-----

Enter choice: 6
Enter Property Id : 5
Chetali , interested in property Id : 5
Press any key to continue . . .
```

**USER:**

**Login:**

```
F:\Project-2\x64\Debug\Project-2.exe

-----User Login-----

Enter name      : Chetali
Enter password  : *****

-----

Login successful!!
Press any key to continue . . .
```

**List Properties by area:**

```
F:\Project-2\x64\Debug\Project-2.exe

-----User Menu-----

[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

-----

Enter choice: 1

Lower limit: 2000
Upper limit: 6000

Id | Name      | Type   | Area | Rooms | Pincode | City      | State      | Sale/Rent | Sale/Resale | Price
-----
2 | Treeland  | Flat   | 2000 | 3      | 422009 | Nasik     | Maharashtra | Sale      | New         | 4000000
3 | Alvira    | Bunglow | 3000 | 5      | 422008 | Mumbai    | Maharashtra | sale      | new         | 10000000
4 | watsalya  | 2      | 3500 | 5      | 431001 | Aurangabad | Maharastra | Rent      | New         | 689500

Press any key to continue . . .
```



## List Properties by pin-code:

```
F:\Project-2\Debug\Project-2.exe

-----User Menu-----

[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

Enter choice: 2

Enter pincode: 431001

Id | Name      | Type  | Area  | Rooms | Pincode | City      | State      | Sale/Rent | Sale/Resale | Price
-----
4 | watsalya  | 2     | 3500  | 5     | 431001 | Aurangabad | Maharastra | Rent      | New         | 689500
5 | Aswa     | Villa | 9800  | 6     | 431001 | Auranagabd | Maharstra  | Rent      | New         | 689000
6 | Visawa   | Bunglow | 6500  | 6     | 431001 | Auranagabad | Maharastra | Rent      | New         | 695000

Press any key to continue . . .
```

## List Properties by price range:

```
F:\Project-2\Debug\Project-2.exe

-----User Menu-----

[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

Enter choice: 3

Lower limit: 695000
Upper limit: 3200000

Id | Name      | Type  | Area  | Rooms | Pincode | City      | State      | Sale/Rent | Sale/Resale | Price
-----
1 | Shree     | Flat  | 9000  | 2     | 422009 | Nasik      | Maharashtra | Sale      | New         | 3200000
6 | Visawa   | Bunglow | 6500  | 6     | 431001 | Auranagabad | Maharastra | Rent      | New         | 695000

Press any key to continue . . .
```

## List Properties by new:

```
F:\Project-2\x64\Debug\Project-2.exe

-----User Menu-----
[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

Enter choice: 4

Id | Name      | Type   | Area  | Rooms | Pincode | City      | State      | Sale/Rent | Sale/Resale | Price
-----
1  | Shree     | Flat   | 9000  | 2      | 422009 | Nasik     | Maharashtra | Sale      | New         | 3200000
2  | Treeland  | Flat   | 2000  | 3      | 422009 | Nasik     | Maharashtra | Sale      | New         | 4000000
3  | Alvira    | Bunglow| 3000  | 5      | 422008 | Mumbai    | Maharashtra | sale      | new         | 10000000
4  | watsalya  | Bunglow| 3500  | 5      | 431001 | Aurangabad| Maharastra | Rent      | New         | 689500
5  | Aswa      | Villa  | 9800  | 6      | 431001 | Auranagabd| Maharastra | Rent      | New         | 689000
6  | Visawa    | Bunglow| 6500  | 6      | 431001 | Aurangabad| Maharastra | Rent      | New         | 695000

Press any key to continue . . .
```

## List Properties by resale:

```
F:\Project-2\x64\Debug\Project-2.exe

-----User Menu-----
[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

Enter choice: 5

Id | Name      | Type   | Area  | Rooms | Pincode | City      | State      | Sale/Rent | Sale/Resale | Price
-----
7  | Gulmohar  | Flat   | 700   | 4      | 430401 | Parbhani  | Maharashtra | Sale      | Resale      | 468500

Press any key to continue . . .
```

## List Properties by buy:

```
F:\Project-2\x64\Debug\Project-2.exe

-----User Menu-----

[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

Enter choice: 6

Id | Name      | Type   | Area | Rooms | Pincode | City      | State      | Sale/Rent | Sale/Resale | Price
-----
1 | Shree     | Flat   | 9000 | 2      | 422009 | Nasik     | Maharashtra | Sale      | New         | 3200000
2 | Treeland  | Flat   | 2000 | 3      | 422009 | Nasik     | Maharashtra | Sale      | New         | 4000000
3 | Alvira    | Bungalow | 3000 | 5      | 422008 | Mumbai    | Maharashtra | sale      | new         | 10000000

Press any key to continue . . .
```

## List Properties by rent:

```
F:\Project-2\x64\Debug\Project-2.exe

-----User Menu-----

[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

Enter choice: 7

Id | Name      | Type   | Area | Rooms | Pincode | City      | State      | Sale/Rent | Sale/Resale | Price
-----
4 | watsalya  | Bungalow | 3500 | 5      | 431001 | Aurangabad | Maharastra | Rent      | New         | 689500
5 | Aswa     | Villa   | 9800 | 6      | 431001 | Auranagabd | Maharstra  | Rent      | New         | 689000
6 | Visawa    | Bungalow | 6500 | 6      | 431001 | Auranagabad | Maharastra | Rent      | New         | 695000

Press any key to continue . . .
```

## List Properties by rooms:

```
F:\Project-2\x64\Debug\Project-2.exe

-----User Menu-----

[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

Enter choice: 8

Enter number of rooms: 6

Id | Name      | Type   | Area  | Rooms | Pincode | City       | State      | Sale/Rent | Sale/Resale | Price
-----
5  | Aswa       | Villa  | 9800  | 6      | 431001 | Auranagabd | Maharstra  | Rent      | New         | 689000
6  | Visawa     | Bunglow| 6500  | 6      | 431001 | Auranagabad| Maharashtra| Rent      | New         | 695000

Press any key to continue . . .
```

## List Properties by city/state:

```
F:\Project-2\x64\Debug\Project-2.exe

-----User Menu-----

[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

Enter choice: 9

City : mumbai
State: Maharashtra

Id | Name      | Type   | Area  | Rooms | Pincode | City       | State      | Sale/Rent | Sale/Resale | Price
-----
3  | Alvira     | Bunglow| 3000  | 5      | 422008 | Mumbai     | Maharashtra| sale      | new         | 10000000

Press any key to continue . . .
```

## List Properties by type:

```
F:\Project-2\x64\Debug\Project-2.exe

-----User Menu-----

[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

Enter choice: 10

Types: [1] Flat [2] Bungalow [3] Villa

Enter type: 2

Id | Name      | Type    | Area  | Rooms | Pincode | City      | State      | Sale/Rent | Sale/Resale | Price
-----
3  | Alvira    | Bungalow | 3000  | 5      | 422008 | Mumbai    | Maharashtra | sale      | new         | 10000000
4  | watsalya  | Bungalow | 3500  | 5      | 431001 | Aurangabad | Maharastra | Rent      | New         | 689500
6  | Visawa    | Bungalow | 6500  | 6      | 431001 | Auranagabad | Maharastra | Rent      | New         | 695000

Press any key to continue . . .
```

## Download Brochure:

```
F:\Project-2\x64\Debug\Project-2.exe

-----User Menu-----

[1] List properties by area
[2] List properties by pincode
[3] List properties by price range
[4] List properties by new
[5] List properties by resale
[6] List properties by buy
[7] List properties by rent
[8] List properties by rooms
[9] List properties by city/state
[10] List properties by Type
[11] Download Brochure
[12] View Photos
[0] Quit

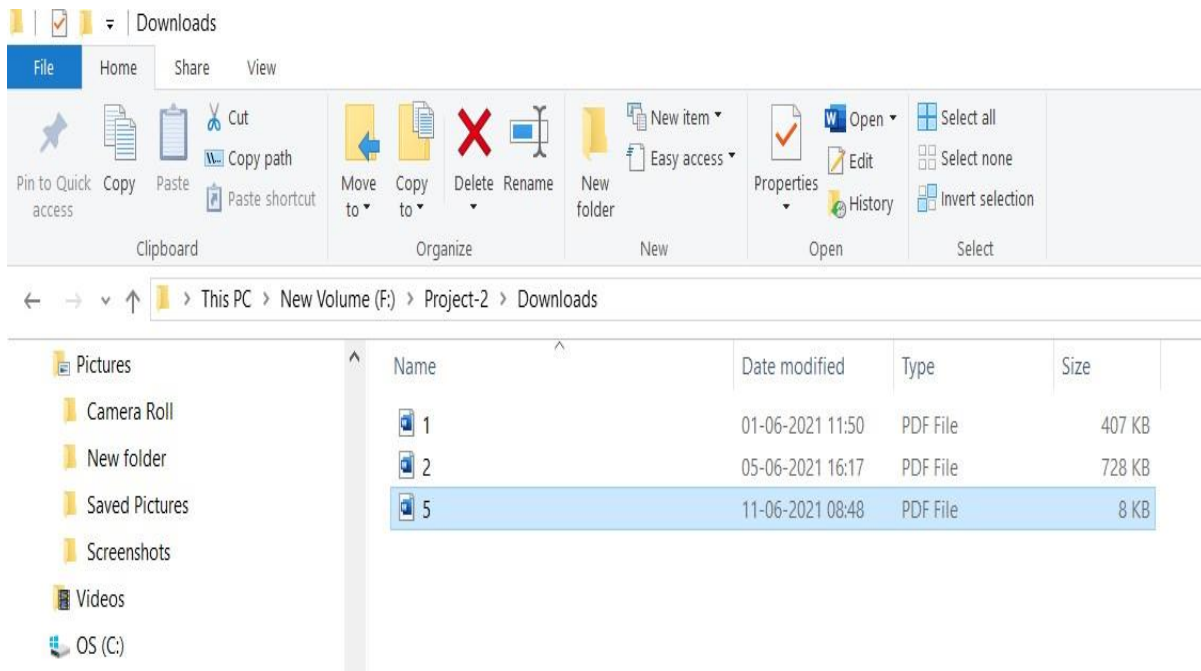
Enter choice: 11

Enter property id: 5
Press any key to continue . . .

[1] Download [2] Continue
Enter choice: 1

Brochure download successfully!!

Press any key to continue . . .
```



### View photos:

