

Airbnb Project Documentation

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Github link - <https://github.com/sarang-sridhar/OOPProject>

1. Description of Classes

Date: Consists of a list of available and unavailable dates and a constructor to add available dates.

Property: Details of property such as name, address price, date, and manager

User: contains methods for booking and canceling of properties and handling transactions, searching property by date, getters, and setters method. Contains data types like the type of user, name, password, and balance.

Manager: inherits functions from user and also contains method to add properties to the list

Login Class: This contains the login and sign-up functions for the user.

2. Walkthrough of input/outputs

Signup -

```
Enter 0 for login, 1 for signup
1
Signup
Sign up procedure
Enter username
dilip
Enter password
dilip123
Enter type of user , 1 for manager and 0 for customer
0
User Succesfully signed Up , Redirecting to login page
```

Sign up file -users.txt

Format

username|password|typeOfUser|balance

```
sksk|sksks|1|55980.0
sarang|dkdod|0|31554.0
Kaustubh|ks123|0|8500.0
abcde|1234|0|2000.0
dilip|dilip123|0|2000.0
```

Signup - username already exists

```
Enter 0 for login, 1 for signup
1
Signup
Sign up procedure
Enter username
dilip
Username already exists , Enter another one
```

Login

```
Enter 0 for login, 1 for signup
0
Login
Login Page
Enter username
dilip
enter password
dilip123
Succesfully logged in , redirecting to respective main menu

Welcome Customer

Type 1 to book property, 2 to cancel a older booking , 3 to show your current balance , 4 to logout
```

Login wrong username/password

```
Enter 0 for login, 1 for signup
0
Login
Login Page
Enter username
amit
enter password
amit123
Username/password does not exist
Try again
Enter 0 for login, 1 for signup
```

```
Enter 0 for login, 1 for signup
0
Login
Login Page
Enter username
dilip
enter password
dilip456
Username/Password incorrect redirecting back to main page
Three unsuccessful attempts , program terminating
```

Show balance

```
Type 1 to book property, 2 to cancel a older booking , 3 to show your current balance , 4 to logout
3
Current balance is
2000.0
```

List of properties - prop.txt

Format

Manager name|property name|address|price/night|dates available|dates booked

```
sksk|Bungalow|no 40 pfw road|2000.0|13,25,23,|12,
sksk|BITS|No 4 bp road pilani|900.0|15,13,14,23,24,25,|empty
sksk|bits|no 45 bp road pilani campus|200.0|1,15,|12,13,
```

Book property

```
Redirecting back to main menu
Type 1 to book property, 2 to cancel a older booking , 3 to show your current balance , 4 to logout
1
Booking a property
Enter inital date
12
Enter no of Nights
1
Finding properties that match your description
Property no 1
Name: Bungalow. Address: no 40 pfw road. Price/night: 2000.0

Enter 0 to search again or enter property no to select the property
1
Checking if you have enough balance
Chosen Property Name Bungalow
Current balance is 2000.0
Rate per night and no of nights is 2000.0 & 1. Total cost is 2000.0
Balance Sufficient , Proceeding with Transaction

Transaction Succesful , Returning to main menu
Type 1 to book property, 2 to cancel a older booking , 3 to show your current balance , 4 to logout
3
Current balance is
0.0
```

Booked.txt

Format

booker's name|properrryname|manager name|no of nights|starting date|price/night

Kaustubh|bits|sksk|2|12|200.0
dilip|Bungalow|sksk|1|12|2000.0

Book Property- balance insufficient

```
Type 1 to book property, 2 to cancel a older booking , 3 to show your current balance , 4 to logout
1
Booking a property
Enter inital date
12
Enter no of Nights
2
FInding properties that match your description
Property no 1
Name: Bungalow. Address: no 40 pfw road. Price/night: 2000.0

Enter 0 to search again or enter property no to select the property
1
CHecking if you have enough balance
Chosen Property Name Bungalow
Current balance is 2000.0
Rate per night and no of nights is 2000.0 & 2. Total cost is 4000.0
BALANCE INSUFFICIENT , RETURNING TO MAIN MENU
```

Cancel Booking

```
Redirecting back to main menu
Type 1 to book property, 2 to cancel a older booking , 3 to show your current balance , 4 to logout
2
Cancel Property Page

Property no: 1
Property Name: Bungalow. No of Nights: 1. Starting date: 12 Rate/night:2000.0
Enter the property no you wanna cancel
1
Property Successfully Cancelled
Cancellation fee of 200.0 Charged

    Redirecting to main menu
Type 1 to book property, 2 to cancel a older booking , 3 to show your current balance , 4 to logout
3
Current balance is

1800.0
```

Manager Class

```

Enter 0 for login, 1 for signup
0
Login
Login Page
Enter username
sksk
enter password
sksk
Successfully logged in , redirecting to respective main menu

Welcome Manager

Type 1 to book property, 2 to cancel an older property ,3 to add property, 4 to see your current balance, 5 to logout

```

Manager Add property

```

Type 1 to book property, 2 to cancel an older property ,3 to add property, 4 to see your current balance, 5 to logout
3
Adding a property
Enter name of property
SR Bhawan
Enter address of property
Ram Marg
Enter price per night
500
Enter total no of nights that the property is available for this month
4
Enter the dates one by one
3
4
5
6
Property Successfully added
Redirecting to main menu
Type 1 to book property, 2 to cancel an older property ,3 to add property, 4 to see your current balance, 5 to logout
4
Current balance is

56180.0

```

Logout

```

Redirecting back to main menu
Type 1 to book property, 2 to cancel a older booking , 3 to show your current balance , 4 to logout
4
Thank you for using our app. Program ending now....

```

3. Limitations/Bugs in project

The limitations to our program is that properties can only be booked in a one month timespan

Can't change user balance.

No forgot password option.

4. Future work possible along the same line as this project.

It is possible to make almost any rental service application using this project such as car rentals, dress rentals, house rentals, library management software.

5. Design Patterns

Strategy Pattern: Manager class inherits User class and changes some methods like transaction

6. UML Diagrams

