CSE212: SOFTWARE DEVELOPMENT METHODOLOGIES

YEDITEPE UNIVERSITY

SPRING 2023

ASSIGNMENT 3 – DUE DATE MARCH 20TH, 2023

Below, you can find the description of your third assignment, which also includes the expected output of this assignment in the *Application Walkthrough* section.

This week, you are expected to improve your existing Hotel Reservation System by introducing six new room types. You should create a Room class and its objects where it will hold room's *type* (in a *String*), dailyCost (in an *int*), *roomSize* (in an *int*) and *hasBath* (in *Boolean*). Furthermore, the *dailyCost* data should be hidden and it should be only accessible via two *public* setter (*setCost()*) and getter (*getCost()*) methods. You should initialize each *Room* instance with the following type and specifications.

Room Type	dailyCost	roomSize	hasBath
Single	$100	15	False
Double	$180	30	False
Club	$250	45	True
Family	$400	50	False
Family with View	$450	50	True
Suite	$650	80	True

Additionally, you are required to modify the variables of your *Reservation* class to store the following information in a structure as shown below.

Variable Name	Type
room	*Room*
reservationMonth	*String*
reservationStart	*int*
reservationEnd	*int*
dailyCost	*int*

The hotel owners highlighted that *June*, *July* and *August* are their peak times and stated that they would like to charge double for these months. Accordingly, you are required to check the reservation month before calculating total price and pass three variables to an overloaded *calculateTotalPrice()*, which includes an integer *multiplier* variable.

All the reservations should be stored in a *Reservation* array and parsed as it was implemented in the second assignment. Furthermore, all access to instance variables of *Reservation* class should be made through *getter* and *setter* methods.

Application Walkthrough

```
1. Create new Reservation
2. Display all Reservations
3. Display the total number of reservations
0. Exit
1

Hotel Name: Hilton
Room Type: Single
Reservation Month: June
Reservation Start: 7
Reservation End: 10
Daily Cost: 100
Has Bath: False
Room Size: 15

Reservation created!

1. Create new Reservation
2. Display all Reservations
3. Display the total number of reservations
0. Exit
1

Hotel Name: Ramada
Room Type: Club
Reservation Month: April
Reservation Start: 6
Reservation End: 16
Daily Cost: 250
Has Bath: True
Room Size: 45

Reservation created!
```

```
1. Create new Reservation
2. Display all Reservations
3. Display the total number of reservations
0. Exit
2

Reservation for a Single room in Hilton starts on June 7 and ends on June 10.
Reservation has a total cost of $600.

Reservation for a Club room in Ramada starts on April 6 and ends on April 16.
Reservation has a total cost of $2500.


1. Create new Reservation
2. Display all Reservations
3. Display the total number of reservations
0. Exit
3

2 reservations created so far.

1. Create new Reservation
2. Display all Reservations
3. Display the total number of reservations
0. Exit
0
```

Submit your assignments in a zip file, which has your student number as name, through the YULEARN (https://yulearn.yeditepe.edu.tr) latest by the end of Monday, March 20th, 2023.