King Saud University College of Computer and Information Sciences Computer Science Department		
CSC 111 Introduction to Programming with Java	**First Semester 2022**	**Lab Quiz**
Name:	ID:	PC#:

Write a Java program for a hotel that calculates the total charge of booked room for customers. Your program should **repeatedly** read the following information:

- The customer's full name in the format: ***firstName lastName***. e.g: *Sara Johnson*
- The number of days the room will be booked.
  - **Note**: validate the number of days if it is a **negative** number. print an appropriate message and ask the user **repeatedly** to re-enter a valid input in case the input is invalid.
- The type of room in the **upper-case** letter format: *S* for Standard, *D* for Deluxe and *E* for Executive.
  - **Note:** if the input is invalid print an appropriate message and move to the next customer.

The program keeps reading bookings when the user enters **Y** or **y** as is shown in the sample run.

For each customer, your program should calculate the total charge of the booked room according to the table below. If the ***Deluxe*** room is booked more than 3 nights, 5% sale rate must be considered in the room total charge.

In addition, it calculates the total number bookings that have been made.

Type of Room	Charge per night
S: Standard Room	SR.300
D: Deluxe Room	SR.800
E: Executive Suite	SR.1000

Output format:

- **The last name** of the customer appended with the title ***Mrs.*** e.g: ***Mrs. Johnson***: It should be displayed with a width of 20 fields and left-justified alignment.
- **The total charge:** it should be displayed as a value with 1 decimal place and right-justified alignment.
- **The number of booking times (How many reservations have been made using the program).**

Note:

- Use switch with type of rooms.
- Name your class (program) with Your **full name** in the format: *FirstName_LastName*
- Write your student ID at the beginning of the program as a comment.
- Upload your .*Java* file ONLY to the LMS before 4:55 p.m.

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Sample Run:
```
Enter the customer's full name: Sara Johnson
Enter the number of days to book the room: 5
Type of room: Standard (S), Deluxe (D), Executive (E): D
Mrs. Johnson
The total charge : 3800.0 SR
continue:  y/n? y

Enter the customer's full name: Amal Khalid
Enter the number of days to book the room: 3
Type of room: Standard (S), Deluxe (D), Executive (E): T
Invalid input!!
Mrs. Khalid
The total charge : 0.0 SR
continue:  y/n? Y

Enter the customer's full name: Maha Ali
Enter the number of days to book the room: 2
Type of room: Standard (S), Deluxe (D), Executive (E): S
Mrs. Ali
The total charge : 600.0 SR
continue:  y/n? y

Enter the customer's full name: Jana Parker
Enter the number of days to book the room: 0
Type of room: Standard (S), Deluxe (D), Executive (E): E
Mrs. Parker
The total charge : 0.0 SR
continue:  y/n? Y

Enter the customer's full name: Tim Morris
Enter the number of days to book the room: -1
Invalid input!! try again.
Enter the number of days to book the room:3
Type of room: Standard (S), Deluxe (D), Executive (E): D
Mrs. Morris
The total charge : 2400.0 SR
continue:  y/n? n

Number or bookings: 3  times
```

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Class String
| ```
int length()
String toLowerCase()
String toUpperCase()
String concat(String str)
String replace(char CharToBeReplaced,char CharReplacedWith)
char charAt(int index)
int indexOf (String str)
int indexOf (String str, int pos)
String substring (int beginIndex)
String substring (int beginIndex,int endIndex)
boolean equals (String str)
boolean equalsIgnoreCase (String str)
int compareTo (String str)
``` |