

Set A (For Only ODD ID Students)

Paste all four classes from both packages to one folder and create the zip file.

Ahsanullah University of Science and Technology
Course Title: Object Oriented Programming Lab
Course Number: CSE1206
Fall 2020

Online

Date: 21 September, 2021

Group: B2

Time: 55 minutes

<p>Create a project named Hotel. This will be the project package.</p> <p>Instructions Only: You will have to create methods in different classes where you can use either void or string as return type. -If you use a void method then use print statements inside them. -If you use string then return string statements and print those in the main method. The choice is yours.</p>	Marks
<p>Create a package named hotelexception</p> <p>Inside this package create two custom exception classes.</p> <ol style="list-style-type: none">1) IDNumberInvalidException (checked exception)2) NotApplicableForDiscountException (unchecked exception) <p>Both classes should override the constructor that takes a String parameter.</p>	4
<p>You must handle all exceptions in the main class (Hotel).</p> <p>Create a class named Booking inside the main project package.</p> <p>Create a method checkID which takes two String parameters: id and category. It does the following checks:</p> <ol style="list-style-type: none">1) If the category is “passport” and id length is not equal to 9 then give IDNumberInvalidException with the statement “Passport number is invalid”.2) If the category is “nid” and id length is not equal to 10 then give IDNumberInvalidException with the statement “NID is invalid”.3) Otherwise print/return “ID is valid”.	3

<p>In Booking class create method: giveDiscount() which takes age as integer parameter and room rate as double parameter.</p> <p>Here, discount is given as follows:</p> <p>1) If age ≥ 60 OR age ≤ 10 then,</p> <p>Take the last 3 digits of your student ID, divide that by 10. Use the result as a percentage. Apply that percent discount to your room rate.</p> <p>Suppose the last 3 digits of your ID is 101. Now, $101/10 = 10.1$ Then give a 10.1% discount.</p> <p>Print/Return "Giving 10.1% discount".</p> <p>Calculate the final roomRate after applying the discount and print/return it as well.</p> <p>2) If the above condition does not occur then the program gives NotApplicableForDiscountException with the statement "Age group not included in discount offer".</p>	4
<p>In the main method, create an object of Booking and call the 2 methods checkID(), giveDiscount(). Handle all exceptions in the main method.</p>	4

Total: 15