Name of the Course : Java 9 Core principles

Level : Easy

Tool Stack : Multiple Constructors

Problem Statement :

It needs to develop software application for billing in the Hotel. Miss Laxmi who is software Engg. want to develope application for credit card enquiry. According to requirement develope the application for credit card enquiry.

Description :

Create a class Customer with the private attributes

long mobileNo,

String customerName, customerAddress, companyName,nationality.

float monthlySalary

Include appropriate getter methods.

Write 2 constructors for the Customer class based on the below assumptions.

Assume most of the Customers are from “Indian” origin. So user has to give input whether the Customer is from india or not. If Customer belongs to india, give input as 'yes/YES' and skip input for the attribute nationality and create Customer object with 5-argument constructor to initilze the values for mobileNo, customerName, customerAddress, companyName, monthlySalary .

If Customer belongs to other nationality, give input as 'no/NO' and get nationality from the user and create Customer object with 6-argument constructor to initialize all the values.

Instead of Yes / No, if user enters different input then display 'Wrong Input' and get the input again.

Based on the above assumptions write the necessary constructors in the Customer class.

Write a class CustomerMain with the main method and test the application.

Get all the input needed from the main method.

Check the correctness of the methods written in these classes.

Note : All class, methods needs to be declared as public

**Code:**

**package** main.java.yaksha;

**import** java.util.Scanner;

**public** **class** Customer{

**private** **long** mobileNo;

**private** String customerName, customerAddress, companyName;

// private String countryName;

**private** **float** monthlySalary;

**private** String countryName="India";

**public** Customer(**long** mobileNo,String customerName, String customerAddress, String companyName,String countryName,**float** monthlySalary)

{

**this**.mobileNo=mobileNo;

**this**.customerName=customerName;

**this**.customerAddress=customerAddress;

**this**.companyName=companyName;

**this**.countryName=countryName;

**this**.monthlySalary=monthlySalary;

}

**public** **long** getMobileNo() {

**return** mobileNo;

}

**public** String getCustomerName() {

**return** customerName;

}

**public** String getCustomerAddress() {

**return** customerAddress;

}

**public** String getCompanyName() {

**return** companyName;

}

**public** **float** getMonthlySalary() {

**return** monthlySalary;

}

**public** String getCountryName() {

**return** countryName;

}

**public** Customer(**long** mobileNo,String customerName, String customerAddress, String companyName,**float** monthlySalary)

{

**this**.mobileNo=mobileNo;

**this**.customerName=customerName;

**this**.customerAddress=customerAddress;

**this**.companyName=companyName;

**this**.monthlySalary=monthlySalary;

}

**public** **boolean** display() {

System.***out***.println("Mobile No:"+getMobileNo());

System.***out***.println("Customer Name:"+getCustomerName());

System.***out***.println("Customer address:"+getCustomerAddress());

System.***out***.println("Company name:"+getCompanyName());

System.***out***.println("Country name:"+countryName);

System.***out***.println("Monthly Salary:"+getMonthlySalary());

**return** **true**;

}

}

**package** main.java.yaksha;

**import** main.java.yaksha.Customer;

**import** java.util.Scanner;

**public** **class** CustomerMain {

**public** **static** **void** main(String[] args) {

String country;

String countryName=**null**;

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("Enter Customer Mobile No:");

**long** mobileNo=sc.nextLong();

System.***out***.println("Enter Customer Name:");

String customerName=sc.next();

System.***out***.println("Enter Customer address");

String customerAddress=sc.next();

System.***out***.println("Enter the Company name:");

String companyName=sc.next();

System.***out***.println("Whether the Customer is from India(Yes/No):");

country=sc.next();

**if**(country.equals("Yes") || country.equals("yes") || country.equals("no") || country.equals("No"))

{

}**else** {

System.***out***.println("Wrong Input");

System.***out***.println("Whether the Customer is from India(Yes/No):");

country=sc.next();

}

**if**(country.equals("no")||country.equals("No"))

{

System.***out***.println("Enter country name");

countryName=sc.next();

}

System.***out***.println("Enter Monthly Salary:");

**float** monthlySalary=sc.nextFloat();

**if**(country.equals("no")||country.equals("No"))

{

Customer c1=**new** Customer(mobileNo,customerName,customerAddress,companyName,countryName,monthlySalary);

c1.display();

}**else** {

Customer c1=**new** Customer(mobileNo,customerName,customerAddress,companyName,monthlySalary);

c1.display();

}

}

}

Junit Testing

**package** test.java.yaksha;

**import** main.java.yaksha.CustomerMain;

**import** main.java.yaksha.TestUtils;

**import** main.java.yaksha.Customer;

**import** **static** org.junit.jupiter.api.Assertions.\*;

**import** java.io.IOException;

**import** org.junit.jupiter.api.Test;

**class** CustomerMainTest {

@Test

**void** testDisplay() **throws** IOException {

**long** mobile=989898986;

Customer c=**new** Customer(mobile, "Narayan", "Pune", "Wipro","Brazil", 20000);

assertEquals(true, c.display());

}

}

Test Data1

Enter Customer Mobile No:

989898986

Enter Customer Name:

Narayan

Enter Customer address

Pune

Enter the Company name:

Wipro

Whether the Customer is from India(Yes/No):

No

Enter country name

Brazil

Enter Monthly Salary:

20000

Mobile No:989898986

Customer Name:Narayan

Customer address:Pune

Company name:Wipro

Country name:Brazil

Monthly Salary:20000.0

Test Data2

Enter Customer Mobile No:

7878787578

Enter Customer Name:

Rajesh

Enter Customer address

Mumbai

Enter the Company name:

TCS

Whether the Customer is from India(Yes/No):

yes

Enter Monthly Salary:

150000

Mobile No:7878787578

Customer Name:Rajesh

Customer address:Mumbai

Company name:TCS

Country name:India

Monthly Salary:150000.0

Learning outcome: Participant could able to learn how to use multiple contructors.