

BITS PILANI, DUBAI CAMPUS

DUBAI INTERNATIONAL ACADEMIC CITY, DUBAI

FIRST SEMESTER 2024 – 2025

COURSE: F213 (Object-Oriented Programming)

COMPONENT: Practical Sheet 4

DATE: 18th September 2024

Q.1

CreditCard

Data:

- String name,
- String cardNo,
- boolean enabled,
- int pin,
- String expiryMonth,
- int cardType, (Platinum =3, Gold =2, Silver =1),
- int currentCredit,
- int creditLimit.

Methods:

- +CreditCard()
- +changePin(int newPin)
- +transact(int amt),
- +changeCardStatus(boolean status)
- +display()

Note:

1. – indicates private access specifier, + indicates public access specifier
2. transact() should check if the card is enabled + pin + credit limit.
3. Further based on the card type a discount is offered
3% for platinum, 2% for Gold and 1% for Silver.

Create a class CreditTester to include the main method. Create objects of CreditCard in this main method and work on functionalities.

1 \$vi CreditCardTester.java

```
class CreditCard {  
  
}  
public class CreditCardTester {  
    public static void main(String[] args) {  
        // Read Input from user. and test the CreditCard class.  
    }  
}
```

```
$javac CreditCardTester.java  
$java CreditCardTester
```

Q.2

Employee
Data: -Id: String -name: String -dept: int -basic: float -allowance: float -totalSalary: float
Method: +Employee() +calculateSalary() +displayDetails()

Write a Java Program to declare any class named Employee with the given attributes. Create another class that has the main method. Create at least 3 objects of the class employee, using the constructor to pass the user input values to assign to attributes.

1. Calculate salary using the rule:

Total salary is basic salary + HRA + Allowance

Note:

Dept: 1 for staff, 2 for accounts, 3 for admin

HRA=40% of basic salary

Allowance = 1500 for Dept 1

2500 for Dept 2

3500 for Dept 3

2. Print details of the object.