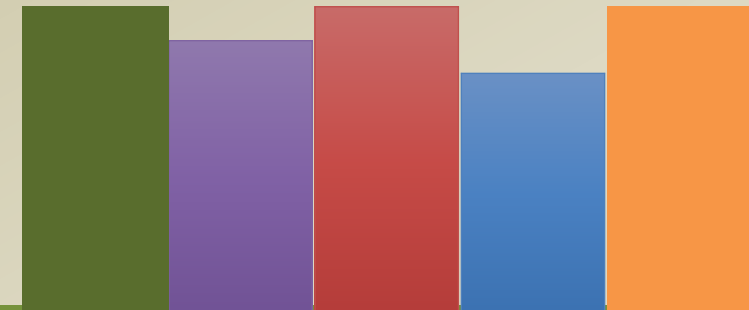# Code at Random
(OPC) PVT. LTD.

Module 4: Previous Year Board Questions

Program

Logic

Syntax

Problem Statement 1

- Design a class **RailwayTicket** to calculate the total amount payable by the passenger according to the given coach selected by the passenger. Take the input from user of the type of coach(as F,A,T or S) and print the amount payable after calculating according to the given table.

Types of Coaches	Amount
First AC (F)	700
Second AC (A)	500
Third AC (T)	250
Sleeper (S)	None

Solution of Problem 1

```java
import java.util.*;

class RailwayTicket {

    public static void main(String Args[])    {

        char coach;

        int amount;

        Scanner sc= new Scanner(System.in);

        System.out.print("Enter the type of coach");

        coach = sc.next().charAt(0);

        if(coach=='F'||coach=='f')

            amount = 700;

        else if(coach=='A'||coach=='a' )

        amount= 500;

        else if(coach=='T'||coach=='t'){
            amount = 250;
        }
        else if(coach=='S'||coach=='s'){
            amount = 0;
        }
        else{
            amount = -1;
            System.out.println("Invalid Choice");
        }
        if(amount!=-1)
        System.out.println("the amount for the room is:"+ amount);
    }
}
```

Problem Statement 2

- Design a class *ElectricBill* to calculate the bill . Take the input from user of the number of units and print the total bill after calculating according to the given table.

Number Of Units	Rate/Unit
First 100 units	2Rs
Next 200 units	3Rs
Next 100 units	5Rs
Above 400 units	7Rs

Solution of Problem 2

```java
import java.util.*;

class ElectricBill {

    public static void main(String Args[])    {

        int units;

        int amount;

        Scanner sc= new Scanner(System.in);

        System.out.print("Enter the number of units");

        units= sc.nextInt();

      if(units>=1&&units<=100)

          amount = 2*units;

    else if(units>100&&units<=300)

        amount= 2*100+(units-100)*3;

    else if(units>300&&units<=400){
            amount = 2*100+200*3+(units-300)*5;
        }
        else{
            amount =100*2+200*3+100*5+(units-400)*7;
        }
        System.out.println("The amount for the electricity is:"+ amount);
    }
}
```

Problem Statement 3

- Design a class *BookFair* to calculate the net amount after applying discount. Take the input from user of the price of the book and print the net amount after calculating according to the given table.

Price	Discount
Less than or equal to Rs 1000	2% of price
>1000 and <= Rs 3000	10% of price
More than Rs 3000	15% of price

Solution of Problem 3

```java
import java.util.*;
class BookFair {
    public static void main(String Args[])    {
        int price;
        double discount,net_amount;
        Scanner sc= new Scanner(System.in);
        System.out.print("Enter the price of the book");
        price= sc.nextInt();
        if(price<=1000)
            discount = 0.02*price;
        else if(price>1000&&price<=3000)
            discount = 0.10*price;
        else
            discount = 0.15*price;
        net_amount=price-discount;
        System.out.println("The net amount of the book is"+net_amount);
    }
}
```