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Batch 31

OOP

Practical 5

Q- **if-else statements:-**

* : Write a program that checks if a given integer is even or odd.
* : Check if a person is eligible to vote based on their age.
* : Determine if a number is positive, negative, or zero.
* ·        
  An Insurance company follows following rules to calculate  
  premium.  
    
  (1) If a person’s health  
  is excellent and the person is between 25 and 35 years of age and lives in a  
  city and is a male then the premium is Rs. 4000 and his policy amount cannot  
  exceed Rs. 2 lakhs.  
    
  (2) If a person satisfies  
  all the above conditions except that the sex is female then the premium is Rs.  
  3000 and her policy amount cannot exceed Rs. 1 lakh.  
    
  (3) If a person’s health  
  is poor and the person is between 25 and 35 years of age and lives in a village  
  and is a male then the premium is Rs. 6000 and his policy cannot exceed Rs.  
  10,000.  
    
  (4) In all other cases the  
  person is not insured.  
    
  Write a program to output  
  whether the person should be insured or not, his/her premium rate and maximum  
  amount for which he/she can be insured.

**Switch case:-**

* Write a program that prints the name of the day based on the number entered (1 for Monday, 2 for Tuesday, etc.).
* Write a program that prints the name of the month based on the number entered (1 for January, 2 for February, etc.).
* ·        
  **Calculate  Restaurant  
  Bill for below menu . GST=12%.**  
    
  **Ask user to enter quantity  
  and item and generate bill.**

Code:

// *import java.util.Scanner;*

// *public class prac\_5 {*

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

// *Scanner scanner = new Scanner(System.in);*

// *System.out.print("Enter person's health (excellent/poor): ");*

// *String health = scanner.nextLine();*

// *System.out.print("Enter person's age: ");*

// *int age = scanner.nextInt();*

// *System.out.print("Enter person's location (city/village): ");*

// *String location = scanner.next();*

// *System.out.print("Enter person's gender (male/female): ");*

// *String gender = scanner.next();*

// *int premium = 0;*

// *int maxAmount = 0;*

// *if (health.equals("excellent") && age >= 25 && age <= 35 && location.equals("city") && gender.equals("male")) {*

// *premium = 4000;*

// *maxAmount = 200000;*

// *} else if (health.equals("excellent") && age >= 25 && age <= 35 && location.equals("city") && gender.equals("female")) {*

// *premium = 3000;*

// *maxAmount = 100000;*

// *} else if (health.equals("poor") && age >= 25 && age <= 35 && location.equals("village") && gender.equals("male")) {*

// *premium = 6000;*

// *maxAmount = 10000;*

// *} else {*

// *System.out.println("The person is not insured.");*

// *return;*

// *}*

// *System.out.println("The person should be insured.");*

// *System.out.println("Premium rate: Rs. " + premium);*

// *System.out.println("Maximum amount for insurance: Rs. " + maxAmount);*

// *}*

// *}*

import *java*.*util*.*Scanner*;

*public* *class* prac\_5 {

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

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

        System.*out*.*print*("Enter a number (1-7) to get the name of the day: ");

        int dayNumber = scanner.*nextInt*();

        String dayName = "";

*switch* (dayNumber) {

*case* 1*:*

                dayName = "Monday";

*break*;

*case* 2*:*

                dayName = "Tuesday";

*break*;

*case* 3*:*

                dayName = "Wednesday";

*break*;

*case* 4*:*

                dayName = "Thursday";

*break*;

*case* 5*:*

                dayName = "Friday";

*break*;

*case* 6*:*

                dayName = "Saturday";

*break*;

*case* 7*:*

                dayName = "Sunday";

*break*;

*default:*

                System.*out*.*println*("Invalid day number.");

*return*;

        }

        System.*out*.*println*("The name of the day is: " + dayName);

        System.*out*.*print*("Enter a number (1-12) to get the name of the month: ");

        int monthNumber = scanner.*nextInt*();

        String monthName = "";

*switch* (monthNumber) {

*case* 1*:*

                monthName = "January";

*break*;

*case* 2*:*

                monthName = "February";

*break*;

*case* 3*:*

                monthName = "March";

*break*;

*case* 4*:*

                monthName = "April";

*break*;

*case* 5*:*

                monthName = "May";

*break*;

*case* 6*:*

                monthName = "June";

*break*;

*case* 7*:*

                monthName = "July";

*break*;

*case* 8*:*

                monthName = "August";

*break*;

*case* 9*:*

                monthName = "September";

*break*;

*case* 10*:*

                monthName = "October";

*break*;

*case* 11*:*

                monthName = "November";

*break*;

*case* 12*:*

                monthName = "December";

*break*;

*default:*

                System.*out*.*println*("Invalid month number.");

*return*;

        }

        System.*out*.*println*("The name of the month is: " + monthName);

        System.*out*.*println*("Enter the quantity and item name to generate the bill:");

        System.*out*.*print*("Quantity: ");

        int quantity = scanner.*nextInt*();

        System.*out*.*print*("Item: ");

        String item = scanner.*next*();

        double price = 0;

*switch* (item.*toLowerCase*()) {

*case* "burger"*:*

                price = 150;

*break*;

*case* "pizza"*:*

                price = 300;

*break*;

*case* "sandwich"*:*

                price = 100;

*break*;

*default:*

                System.*out*.*println*("Invalid item.");

*return*;

        }

        double totalAmount = price \* quantity;

        double gst = totalAmount \* 0.12;

        double discount = 0;

*if* (quantity > 5 && item.*equalsIgnoreCase*("burger")) {

            discount = totalAmount \* 0.1;

        } *else* *if* (totalAmount > 1000) {

            discount = totalAmount \* 0.15;

        } *else* *if* (totalAmount > 500) {

            discount = totalAmount \* 0.2;

        }

        double finalAmount = totalAmount + gst - discount;

        System.*out*.*println*("Bill Details:");

        System.*out*.*println*("Item: " + item);

        System.*out*.*println*("Quantity: " + quantity);

        System.*out*.*println*("Price per item: Rs. " + price);

        System.*out*.*println*("Total amount: Rs. " + totalAmount);

        System.*out*.*println*("GST (12%): Rs. " + gst);

        System.*out*.*println*("Discount: Rs. " + discount);

        System.*out*.*println*("Final amount: Rs. " + finalAmount);

    }

}

Output:

