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Enrollment no – 23162121021

Batch 31

OOP

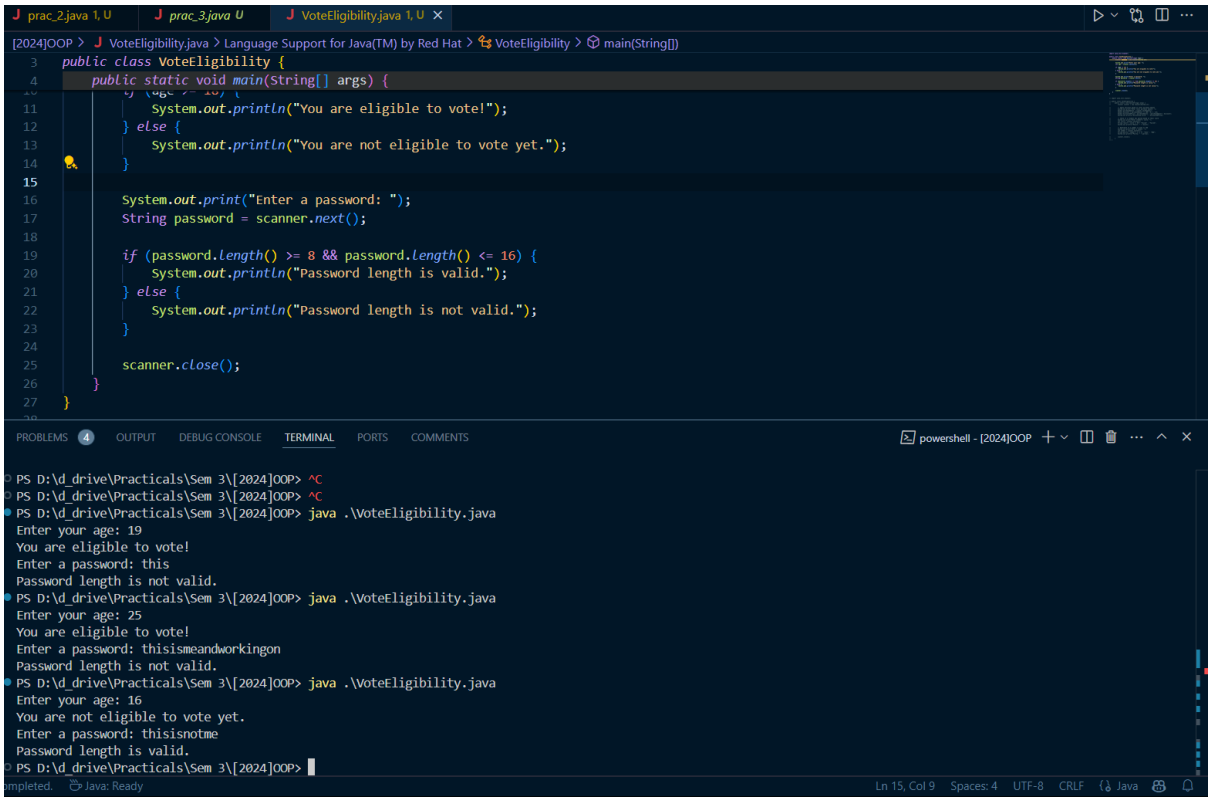
Q- 1 **Relational Operators**

- : Write a program that takes an age as input and checks if the person is eligible to vote (age >= 18).
- : Check if a password length is between 8 and 16 characters.goog_1790747051

Code:

```
import java.util.Scanner;

public class VoteEligibility {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter your age: ");
        int age = scanner.nextInt();
        if (age >= 18) {
            System.out.println("You are eligible to vote!");
        } else {
            System.out.println("You are not eligible to vote yet.");
        }
        System.out.print("Enter a password: ");
        String password = scanner.next();
        if (password.length() >= 8 && password.length() <= 16) {
            System.out.println("Password length is valid.");
        } else {
            System.out.println("Password length is not valid.");
        }
        scanner.close();
    }
}
```



Q- 2 **Conditional (Ternary) Operator**

- : Use the conditional operator to apply a discount based on total purchase amount.
- : Use the conditional operator to check if a student has passed based on their score.
- : Use the conditional operator to determine if a number is even or odd.

Code:

```
import java.util.Scanner;


public class VoteEligibility {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);


        // Apply discount based on total purchase amount
        System.out.print("Enter total purchase amount: ");
        double purchaseAmount = scanner.nextDouble();
        double discount = purchaseAmount >= 100 ? 0.1 : 0.0;
```

```
    double discountedPrice = purchaseAmount - (purchaseAmount * discount);
    System.out.println("Discounted price: " + discountedPrice);

    // Check if a student has passed based on their score
    System.out.print("Enter student's score: ");
    int score = scanner.nextInt();
    String result = score >= 60 ? "Passed" : "Failed";
    System.out.println("Result: " + result);

    // Determine if a number is even or odd
    System.out.print("Enter a number: ");
    int number = scanner.nextInt();
    String parity = number % 2 == 0 ? "Even" : "Odd";
    System.out.println("Parity: " + parity);
    scanner.close();
}
```