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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* {

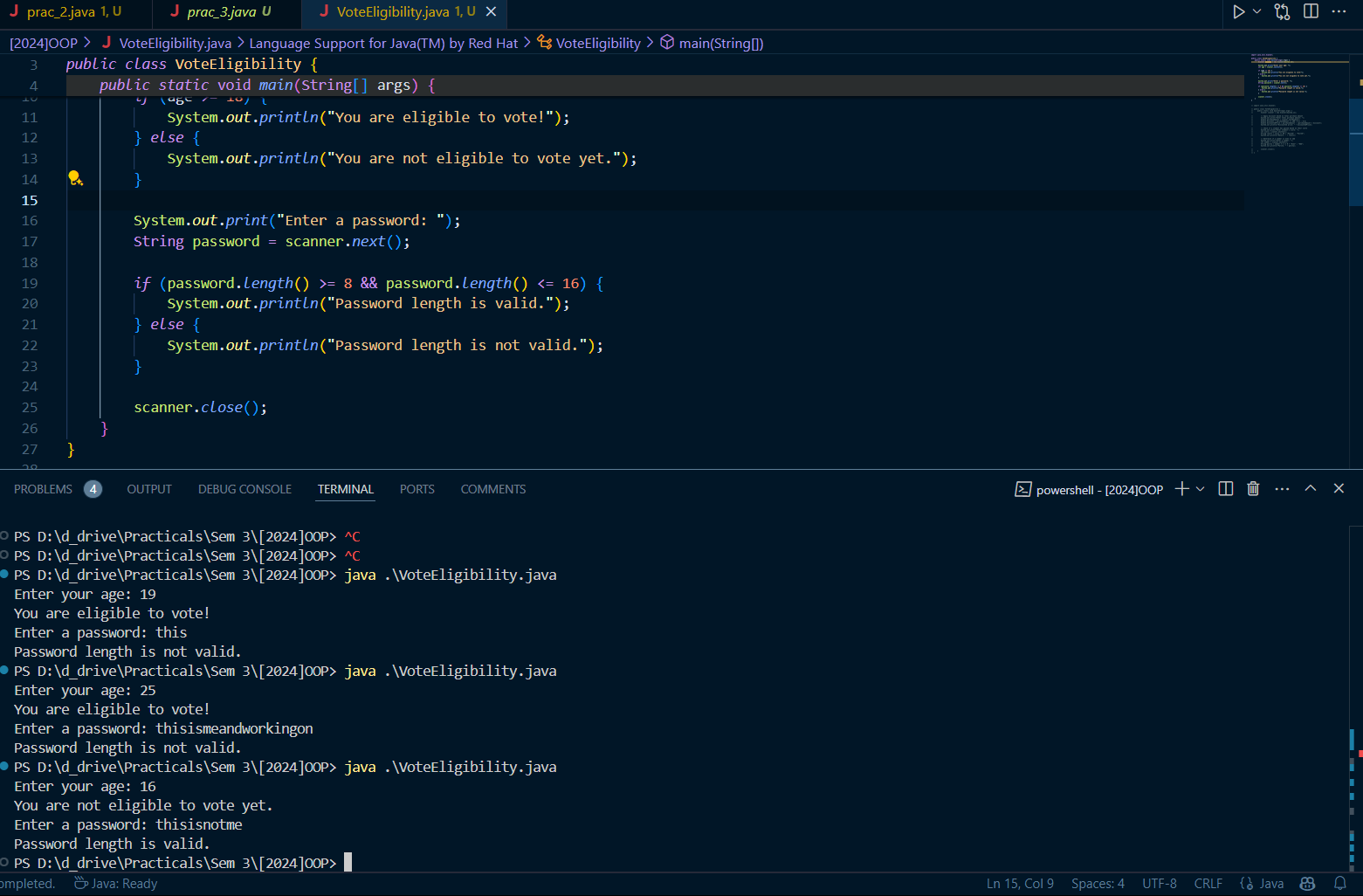
            System.*out*.*println*("Password length is not valid.");

        }

        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();

    }

