

```
package assignment;

import java.util.*;

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

        System.out.print("Enter the principal amount: ");
        double principal = input.nextDouble();

        System.out.print("Enter the number of years: ");
        int years = input.nextInt();

        System.out.print("Is the customer a senior citizen (y/n): ");
        char isSenior = input.next().charAt(0);

        double rateOfInterest;

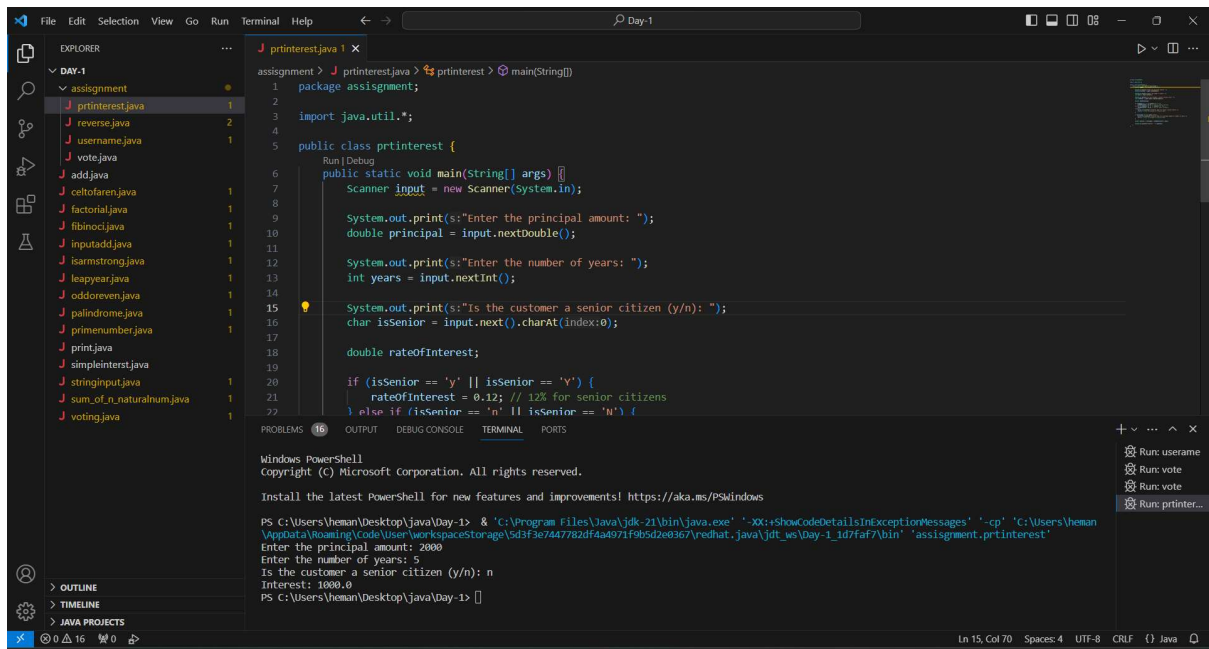
        if (isSenior == 'y' || isSenior == 'Y') {
            rateOfInterest = 0.12; // 12% for senior citizens
        } else if (isSenior == 'n' || isSenior == 'N') {
            rateOfInterest = 0.10; // 10% for other customers
        } else {
            System.out.println("Invalid input for senior citizen status.");
            return; // Exit the program if invalid input
        }

        if (principal <= 0 || years <= 0) {
            System.out.println("Invalid input for principal amount or number of years.");
            return; // Exit the program if invalid input
        }

        double interest = principal * rateOfInterest * years;

        System.out.println("Interest: " + interest);
    }
}
```

## 19.seniorinterest



The screenshot shows an IDE with a project named 'DAY-1'. The 'EXPLORER' pane on the left lists several Java files, including 'printerest.java'. The main editor displays the code for 'printerest.java', which is a Java program that calculates interest based on user input. The code includes a package declaration, imports, a public class 'printerest', and a static void 'main' method. The 'main' method uses 'Scanner' to take input for principal amount, years, and whether the customer is a senior citizen. It then calculates the interest rate based on these inputs.

```
1 package assignment;
2
3 import java.util.*;
4
5 public class printerest {
6     public static void main(String[] args) {
7         Scanner input = new Scanner(System.in);
8
9         System.out.print(s:"Enter the principal amount: ");
10        double principal = input.nextDouble();
11
12        System.out.print(s:"Enter the number of years: ");
13        int years = input.nextInt();
14
15        System.out.print(s:"Is the customer a senior citizen (y/n): ");
16        char isSenior = input.next().charAt(index:0);
17
18        double rateOfInterest;
19
20        if (isSenior == 'y' || isSenior == 'Y') {
21            rateOfInterest = 0.12; // 12% for senior citizens
22        } else if (isSenior == 'n' || isSenior == 'N') {
```

The 'TERMINAL' pane at the bottom shows the execution of the program in a Windows PowerShell window. The command to run the program is: `PS C:\Users\heman\Desktop\java\Day-1> & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-Xt:showCodeDetailsInExceptionMessages' '-cp' 'C:\Users\heman\AppData\Roaming\Code\User\workspaceStorage\5d3f3e7447782df4a4971f9b5d2e8367\redhat.java\jdt_ws\Day-1_1d7faf7\bin' 'assignment.printerest'`. The output shows the program running and taking input: `Enter the principal amount: 2000`, `Enter the number of years: 5`, `Is the customer a senior citizen (y/n): n`, and `Interest: 1000.0`.