

The screenshot shows the Microsoft Visual Studio Code interface. The Explorer sidebar on the left lists several Java files: que_17.java, que_43.java, que_40.java, for.java, que_41.java, and que_1.java. The que_1.java file is currently selected and open in the editor. The code in que_1.java is as follows:

```
Assignment_4 > J que_1.java > Language Support for Java(TM) by Red Hat > que_1 > main(String[])
1 package Assignment_4;
2
3 import java.util.Scanner;
4
5 public class que_1 {
6
7     public static void main(String[] args) {
8         Scanner sc = new Scanner(System.in);
9         System.out.println("enter first number");
10        float a = sc.nextFloat();
11
12        System.out.println("enter Second number");
13        float b = sc.nextFloat();
14
15        System.out.println("enter third number");
16        float c = sc.nextFloat();
17
18        float sum = a + b + c;
19
20        System.out.println("sum of three number : " + sum);
21
22    }
23
24 }
```

The terminal tab at the bottom shows the output of running the program:

```
enter first number
12.3
enter Second number
22.4
enter third number
45.6
Sum of three number : 80.3
```

```
// package Assignment_4;

import java.util.Scanner;

public class que_1 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("enter first number");
        float a = sc.nextFloat();

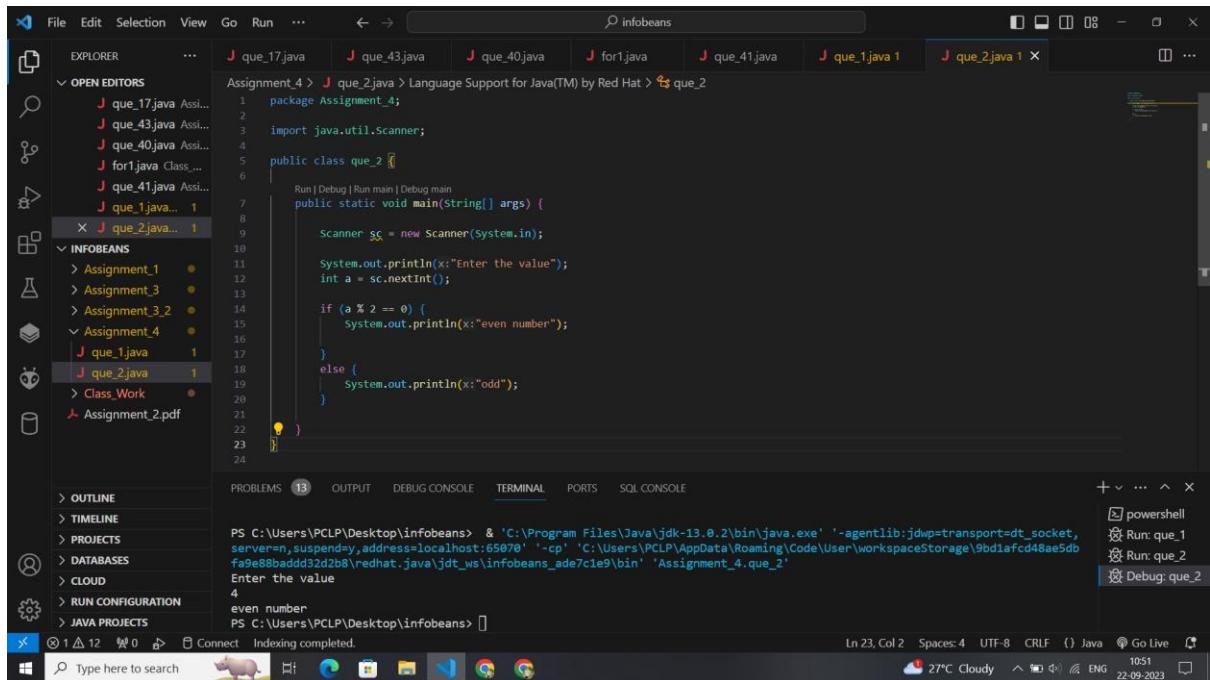
        System.out.println("enter Second number");
        float b = sc.nextFloat();

        System.out.println("enter third number");
        float c = sc.nextFloat();

        float sum = a + b + c;

        System.out.println("Sum of three number : " + sum);

    }
}
```



```
// package Assignment_4;
```

```
import java.util.Scanner;

public class que_2 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter the value");
        int a = sc.nextInt();

        if (a % 2 == 0) {
            System.out.println("even number");

        } else {
            System.out.println("odd");
        }

    }
}
```

The screenshot shows the Visual Studio Code interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, ...
- Search Bar:** infobeans
- Explorer:** Shows a tree view of files and folders. Under "OPEN EDITORS", "que_3.java" is selected. Under "INFOBEANS", "Assignment_4" is expanded, showing sub-folders like ".vscode", "Assignment_1", "Assignment_3", "Assignment_3_2", and "Assignment_4". "que_1.java", "que_2.java", and "que_3.java" are also listed under "Assignment_4".
- Editor:** The main editor area displays Java code for "que_3.java". The code uses Scanner to read two integers from the user and prints messages based on their values.
- Terminal:** The terminal shows the output of running the program twice. It asks for two numbers, prints them back, and then prints "do not match the criteria" for both cases where the number is greater than or equal to 20.
- Bottom Status Bar:** Shows file path (PS C:\Users\PCLP\Desktop\infobeans\), line 32, column 13, spaces: 4, UTF-8, CRLF, Java, Go Live, weather (29°C Partly sunny), date (22-09-2023), and time (14:10).

```
// package Assignment_4;

import java.util.Scanner;

public class que_3 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int a = sc.nextInt();

        System.out.println("Enter first number");
        int b = sc.nextInt();
        System.out.println("Enter first number");
        int c = sc.nextInt();
        if (a >= 20)
        {
            System.out.println("a is grater than 20");
        } else {
            System.out.println(a + " do not match the criteria ");
        }
        if (b >= 20) {

            System.out.println("b is greater than 20");
        } else {
            System.out.println(b + " do not match the criteria");
        }
        if (c >= 20) {
            System.out.println("c is greater than 20");
        } else {
            System.out.println(c + " do not match the criteria");
        }
    }
}
```

The screenshot shows an IDE interface with the following details:

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Back, Forward, Home, Refresh, Stop, etc.
- Search Bar:** infobeans
- Explorer:** que_43.java, que_40.java, for1.java, que_41.java, que_1.java, que_2.java, que_3.java, que_4.java (selected).
- Editor:** Assignment_4 > que_4.java > Language Support for Java(TM) by Red Hat > que_4.java (main(String[]))
The code is as follows:

```
// package Assignment_4;

import java.util.Scanner;

public class que_4 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter your bonus");
        int sale = sc.nextInt();

        int bonus = (sale * 20) / 100;
        int sum = sale + bonus;

        if (sum >= 10000) {

            System.out.println("congratulation you have a : " + bonus + " bonus " + sum);

        } else {
            System.out.println("you missed chance");
        }
    }
}
```

PROBLEMS: 15

OUTPUT: PS C:\Users\PCLP\Desktop\infobeans> c:; cd 'c:\Users\PCLP\Desktop\infobeans'; & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' -agentlib:jdwpt=transport=dtransport,server=n,suspend=y,address=localhost:55679' -cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88badd32d2b8\redhat.java\jdt_ws\infobeans_ae7cie9\bin' 'Assignment_4.que_4'

DEBUG CONSOLE: Enter your bonus
12
you missed chance

TERMINAL: PS C:\Users\PCLP\Desktop\infobeans>

PORTS: 30°C Partly sunny 14:37 22-09-2023

SQL CONSOLE:

Run Configuration: Debug: que_3, Debug: que_4, Run: que_4

Bottom Status Bar: Ln 14, Col 32, Spaces: 4, UTF-8, CRLF, Java, Go Live, 30°C Partly sunny, ENG, 14:37, 22-09-2023

The screenshot shows the Eclipse IDE interface with the following details:

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Standard toolbar items like New, Open, Save, etc.
- Search Bar:** Type here to search
- Left Sidebar (Explorer View):** Shows various Java files in the workspace, including `que_4.java`, `que_5.java`, and several files under `INFOBEANS`.
- Central Editor Area:** Displays the Java code for `que_5.java`. The code uses a Scanner to read an integer from the user and prints a message based on whether the age is between 18 and 100.
- Bottom Status Bar:** Shows the current file (`que_5.java`), line (Ln 13, Col 32), and column (Spaces: 4, CRLF).
- Bottom Right Corner:** Shows system status (30°C Partly sunny), date (22-09-2023), and time (14:43).

```
package Assignment_4;

import java.util.Scanner;

public class que_5 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter your age");
        int age = sc.nextInt();

        if (age >= 18 && age <= 100) {
            System.out.println("You are eligible for voting");
        } else {
            System.out.println("not eligible for voting5");
        }

    }
}
```

The screenshot shows the Microsoft Visual Studio Code interface with the following details:

- File Explorer:** Shows multiple Java files in the `Assignment_4` project folder, including `que_4.java`, `que_5.java`, and `que_6.java`.
- Editor:** The `que_6.java` file is open and displayed. The code prompts the user to enter marks for Hindi, English, Maths, Science, and Social Science, calculates the average, and prints "pass" if the average is 40 or above, otherwise "Fail".
- Terminal:** Shows the command line output of the program being run.
- Bottom Status Bar:** Displays the current file path (C:\Users\PCLP\Desktop\infobeans>), line (Ln 30), column (Col 37), and encoding (UTF-8). It also shows the date and time (22-09-2023 14:54) and weather information (30°C Partly sunny).

```
// package Assignment_4;

import java.util.Scanner;

public class que_6 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter hindi marks");
        int a = sc.nextInt();

        System.out.println("Enter English marks");
        int b = sc.nextInt();

        System.out.println("Enter Maths marks");
        int c = sc.nextInt();

        System.out.println("Enter Science marks");
        int d = sc.nextInt();

        System.out.println("Enter Social science marks");
        int e = sc.nextInt();

        float ave = (a + b + c + d + e) / 5;

        if (ave >= 40) {
            System.out.println("pass");

        } else {
            System.out.println("Fail");
        }

    }
}
```

The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections, including "que_4.java", "que_5.java", "que_6.java", and "que_7.java".
- Code Editor:** The "que_7.java" file is open, displaying the following Java code:

```
Assignment_4 > J que_7.java > Language Support for Java(TM) by Red Hat > que_7 > main(String[])

1 package Assignment_4;
2
3 import java.util.Scanner;
4
5 public class que_7 {
6
7     public static void main(String[] args) {
8
9         Scanner sc = new Scanner(System.in);
10
11         System.out.println("Enter your name");
12         String name = sc.nextLine();
13
14         System.out.println("Enter your age");
15         int age = sc.nextInt();
16
17         System.out.println("Enter your Salary");
18         int salary = sc.nextInt();
19
20         System.out.println(name);
21         System.out.println(age);
22         System.out.println(salary);
23     }
24 }
```

- Terminal:** Shows the output of running the program:

```
Enter your age
23
Enter your Salary
12000
Rohit
23
12000
PS C:\Users\PCPL\Desktop\infobeans>
```

- Status Bar:** Displays "Ln 22, Col 34 Spaces: 4 UTF-8 CRLF {} Java 15:01" and "30°C Partly sunny ENG 22-09-2023".

```
package Assignment_4;

import java.util.Scanner;

public class que_7 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter your name");
        String name = sc.nextLine();

        System.out.println("Enter your age");
        int age = sc.nextInt();

        System.out.println("Enter your Salary");
        int salary = sc.nextInt();

        System.out.println(name);
        System.out.println(age);
        System.out.println(salary);

    }
}
```

The screenshot shows a Java code editor interface with the following details:

- File Explorer:** Shows multiple Java files in the `Assignment_4` project, including `que_4.java`, `que_5.java`, `que_6.java`, `que_7.java`, and `que_8.java`.
- Code Editor:** The `que_8.java` file is open, displaying the following Java code:

```
package Assignment_4;

import java.util.Scanner;

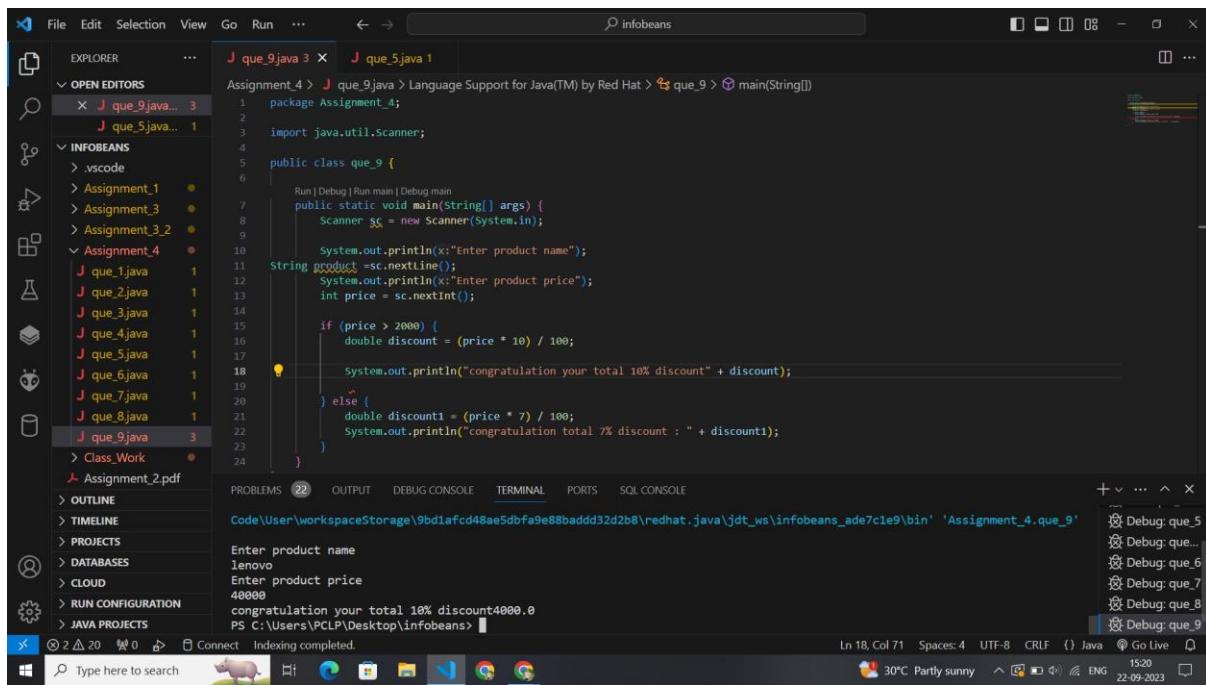
public class que_8 {

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

        System.out.println("Enter first number");
        int a = sc.nextInt();

        System.out.println("Enter second number");
        int b = sc.nextInt();
        if (a > b) {
            System.out.println("a number is greater");
        } else {
            System.out.println("b number is grater");
        }
    }
}
```
- Terminal:** The terminal window shows the output of running the program:

```
server=n,suspend=y,address=localhost:55824' '-cp 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd4Sae5dbfae88baddd32d208\redhat.java\jdt_ws\infobeans_ade\c1e9\bin' 'Assignment_4.que_8'
Enter first number
23
Enter second number
34
b number is grater
PS C:\Users\PCLP\Desktop\infobeans>
```
- Run Configuration:** A sidebar on the right lists run configurations for `que_4` through `que_8`.



```
// package Assignment_4;

import java.util.Scanner;

public class que_9 {

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

        System.out.println("Enter product name");
        String product = sc.nextLine();
        System.out.println("Enter product price");
        int price = sc.nextInt();

        if (price > 2000) {
            double discount = (price * 10) / 100;

            System.out.println("congratulation your total 10% discount is " + discount);

        } else {
            double discount1 = (price * 7) / 100;
            System.out.println("congratulation total 7% discount is : " + discount1);
        }
    }
}
```

The screenshot shows the Microsoft Visual Studio Code interface. The left sidebar displays a file tree with several Java files under 'INFOBEANS' and 'Assignment_4'. The main editor window shows a Java program named 'que_10.java'. The code uses a Scanner to read three integers from the user and prints out which one is the greatest. The terminal tab at the bottom shows the execution of the program and its output.

```
Run|Debug|Run main|Debug main
public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter first number");
    int a = sc.nextInt();

    System.out.println("Enter Second number");
    int b = sc.nextInt();

    System.out.println("Enter third number");
    int c = sc.nextInt();

    if (a > b && a > c) {
        System.out.println("a is greatest number");
    } else if (b > a && b > c) {
        System.out.println("b is greatest number");
    } else {
        System.out.println("c is greatest number");
    }
}
```

```
import java.util.Scanner;

public class que_10 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int a = sc.nextInt();

        System.out.println("Enter Second number");
        int b = sc.nextInt();

        System.out.println("Enter third number");
        int c = sc.nextInt();

        if (a > b && a > c) {
            System.out.println("a is greatest number");
        } else if (b > a && b > c) {
            System.out.println("b is greatest number");
        } else {
            System.out.println("c is greatest number");
        }
    }
}
```

The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including "que_10.java", "que_11.java", "que_4.java", and "que_6.java".
- Editor:** The "que_11.java" file is open, displaying the following Java code:

```
public class que_11 {
    public static void main(String[] args) {
        char ch1 = 'A';
        char ch2 = 'B';

        int a = ch1;
        int b = ch2;

        System.out.println("value of A is : " + a);
        System.out.println("value of B is : " + b);
    }
}
```
- Terminal:** Shows the command-line output of running the program:

```
PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:61497' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'que_11'
value of A is : 65
value of B is : 66
PS C:\Users\PCLP\Desktop\infobeans>
```
- Status Bar:** Displays "Ln 13, Col 50" and "Java".

```
public class que_11 {

    public static void main(String[] args) {

        char ch1 = 'A';
        char ch2 = 'B';

        int a = ch1;
        int b = ch2;

        System.out.println("value of A is : " + a);
        System.out.println("value of B is : " + b);

    }
}
```

The screenshot shows the Eclipse IDE interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Toolbar:** Run, Debug, Run main | Debug main, Run | Debug | Run main | Debug main.
- Editor Area:** The active editor contains the Java code for swapping two integers. The code uses a Scanner to read input from the user and prints the swapped values. The code is as follows:

```
import java.util.Scanner;
public class que_12 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int a = sc.nextInt();

        System.out.println("Enter Second number");
        int b = sc.nextInt();
        int c = a;
        a = b;
        b = c;
        System.out.println("After swapping " + a + " " + b);
    }
}
```

- Left Sidebar (Explorers):** Shows various Java files and projects like Assignment_3_2, Assignment_4, LCKque_5.java, que_1.java, que_2.java, que_3.java, que_4.java, que_5.java, que_6.java, que_7.java, que_8.java, que_9.java, que_10.java, que_11.java, que_12.java, Class_Work, and Assignment2.pdf.
- Bottom Status Bar:** Shows the current line (Ln 17), column (Col 60), spaces (Spaces: 4), encoding (UTF-8), and date/time (22-09-2023).

The screenshot shows the Java code for swapping two integers. The code uses a Scanner to read input from the user and prints the swapped values. The code is as follows:

```
import java.util.Scanner;

public class que_12 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int a = sc.nextInt();

        System.out.println("Enter Second number");
        int b = sc.nextInt();
        System.out.println("before swapping " + a + " " + b);

        int c = a;
        a = b;
        b = c;
        System.out.println("After swapping " + a + " " + b);
    }
}
```

The screenshot shows the Eclipse IDE interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Toolbar:** Includes icons for New, Open, Save, Cut, Copy, Paste, Find, Replace, and others.
- Editor Area:** Displays Java code for a class named `que_13`. The code uses a `Scanner` to read a character from standard input and prints whether it is a vowel or consonant.

```
import java.util.Scanner;

public class que_13 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter Alphabet");
        char str = sc.next().charAt(0);

        if (str == 'a' || str == 'e' || str == 'i' || str == 'o' || str == 'u' || str == 'A' || str == 'E' || str == 'I' || str == 'O' || str == 'U') {
            System.out.println(str + " is vowel");
        } else {
            System.out.println(str + " consonant");
        }
    }
}
```
- Explorer View:** Shows a tree structure of open files, including `que_10.java`, `que_11.java`, `que_12.java`, `que_13.java`, `que_4.java`, `que_6.java`, and `Assignment_2.pdf`.
- Problems View:** Shows 24 errors.
- Output View:** Displays terminal output for running the code.
- Debug View:** Shows multiple debug configurations for the project.
- Terminal View:** Shows the command line used to run the application.
- Bottom Status Bar:** Shows the current line (Ln 14), column (Col 40), spaces (Spaces: 4), encoding (UTF-8), file type (Java), and date/time (22-09-2023).

A zoomed-in view of the Java code within the Eclipse IDE editor:

```
import java.util.Scanner;

public class que_13 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter Alphabet");
        char str = sc.next().charAt(0);

        if (str == 'a' || str == 'e' || str == 'i' || str == 'o' || str == 'u' || str == 'A' || str == 'E' || str == 'I' || str == 'O' || str == 'U') {
            System.out.println(str + " is vowel");
        } else {
            System.out.println(str + " consonant");
        }
    }
}
```

The screenshot shows the Eclipse IDE interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Toolbar:** Standard Eclipse toolbar icons.
- Editor Area:** The main code editor displays the following Java code:

```
Assignment_4 > J que_14.java > Language Support for Java(TM) by Red Hat > que_14 > main(String[])
```

```
1 import java.util.Scanner;
2
3 public class que_14 {
4
5     public static void main(String[] args) {
6         Scanner sc = new Scanner(System.in);
7         System.out.println("Enter number");
8         int a = sc.nextInt();
9
10        if (a >= 0) {
11            System.out.println("positive");
12        } else {
13            System.out.println("Negative");
14        }
15    }
16
17 }
```

- Left Sidebar (Explorers):** Shows the project structure with files like que_10.java, que_11.java, que_12.java, que_13.java, and que_14.java.
- Bottom Status Bar:** Shows the current file (que_14.java), line (Ln 15, Col 44), and date (22-09-2023).

The screenshot shows the Java code running in a terminal window:

```
import java.util.Scanner;

public class que_14 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int a = sc.nextInt();

        if (a >= 0) {
            System.out.println("positive");

        } else {
            System.out.println("Negative");
        }
    }
}
```

The terminal output shows the program prompting for input and printing "Negative" based on the input provided.

The screenshot shows the Eclipse IDE interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Title Bar:** J que_15.java > J que_2.java 1
- Toolbar:** Standard Eclipse toolbar.
- Left Sidebar (OPEN EDITORS):** Shows multiple Java files: que_15.java, que_2.java, Assignment_1, Assignment_3, Assignment_3_2, Assignment_4, Assignment_4, que_1.java, que_2.java, que_3.java, que_4.java, que_5.java, que_6.java, que_7.java, que_8.java, que_9.java, que_10.java, que_11.java, que_12.java, que_13.java, que_14.java, que_15.java, and Class_Work.
- Central Area:** Code editor for que_15.java. The code swaps two integers using temporary variables.
- Bottom Status Bar:** Shows the current file (que_15.java), line (Ln 19, Col 57), and column (Spaces: 4, CRLF).
- Bottom Right:** Weather info (29°C Mostly sunny), date (22-09-2023), and time (16:41).

```
import java.util.Scanner;

public class que_15 {

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

        System.out.println("Enter the value of a ");
        int a = sc.nextInt();

        System.out.println("Enter the value of b");
        int b = sc.nextInt();

        a = a + b;
        b = a - b;
        a = a - b;

        System.out.println("After swapping " + a + " " + b);
    }
}
```

The screenshot shows the Eclipse IDE interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help.
- Title Bar:** J infobeans
- Toolbar:** Standard Eclipse toolbar.
- Left Sidebar:** Explorer, Open Editors, INFOBEANS, Outline, Timeline, Projects, Databases, Cloud, Run Configuration, Java Projects.
- Central Area:** Editor showing Java code for `que_16.java`. The code defines a class `que_16` with a main method that prints the conversion of 10 inches to centimeters (2.54 * 10).
- Bottom Area:** Problems, Output, Debug Console, Terminal, Ports, SQL Console.
- Console:** Shows command-line output of the Java command being run.
- Status Bar:** Ln 8, Col 38, Spaces: 4, UTF-8, CRLF, Java, Go Live, 1644, 29°C Mostly sunny, ENG, 22-09-2023.

```
public class que_16 {  
  
    public static void main(String[] args) {  
        int Inches = 10;  
        double centimeter = 2.54 * Inches;  
        // centimeter = 2.54 * Inches;  
        System.out.println(centimeter);  
    }  
}
```

The screenshot shows the Eclipse IDE interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, ...
- Title Bar:** J infobeans
- Toolbar:** Standard Eclipse toolbar.
- Left Sidebar:** Explorer, Open Editors, INFOBEANS, Outline, Timeline, Projects, Databases, Cloud, Run Configuration, Java Projects.
- Central Area:** Editor showing Java code for `que_17.java`. The code defines a class `que_17` with a main method that uses a Scanner to input a number and then prints its value in days and weeks.
- Bottom Area:** Problems, Output, DEBUG CONSOLE, TERMINAL, PORTS, SQL CONSOLE.
- Console:** Shows command-line output of the Java command being run.
- Status Bar:** Ln 20, Col 1, Spaces: 4, UTF-8, CRLF, Java, Go Live, 1134, 29°C Haze, ENG, 25-09-2023.

```
import java.util.Scanner;
```

```

public class que_17 {

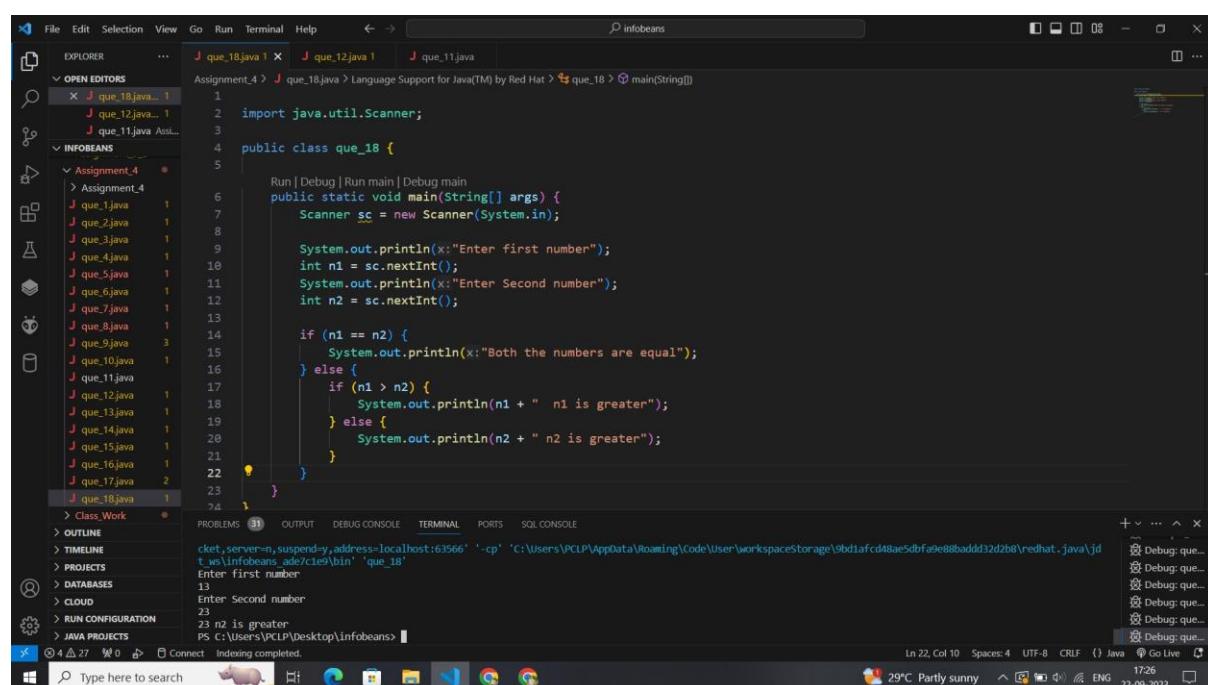
    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter first number");
        int days = sc.nextInt();

        int months = days / 30; //
        int weeks = months * 7;
        days = days / 10;
        System.out.println(months);
        System.out.println(weeks);
    }
}

```



```

import java.util.Scanner;

public class que_18 {

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

        System.out.println("Enter first number");
        int n1 = sc.nextInt();
        System.out.println("Enter Second number");
        int n2 = sc.nextInt();

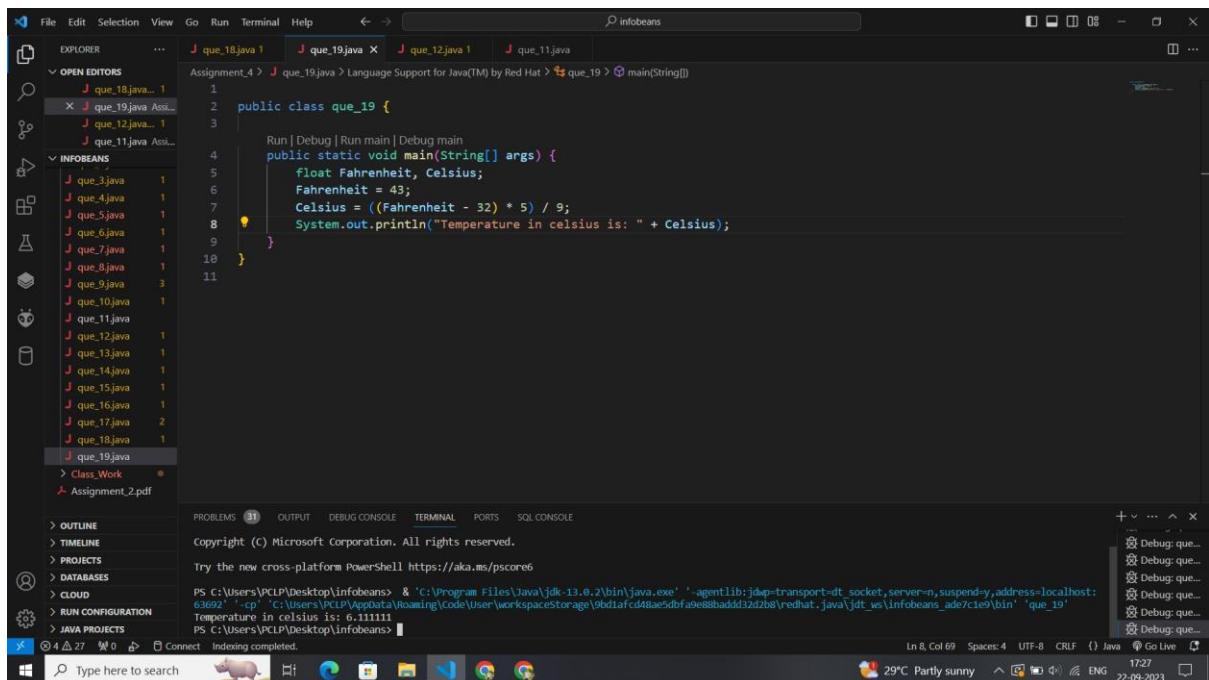
        if (n1 == n2) {
            System.out.println("Both the numbers are equal");
        } else {

```

```

        if (n1 > n2) {
            System.out.println(n1 + " n1 is greater");
        } else {
            System.out.println(n2 + " n2 is greater");
        }
    }
}

```



```

public class que_19 {

    public static void main(String[] args) {
        float Fahrenheit, Celsius;
        Fahrenheit = 43;
        Celsius = ((Fahrenheit - 32) * 5) / 9;
        System.out.println("Temperature in celsius is: " + Celsius);
    }
}

```

The screenshot shows a Java code editor interface with the following details:

- File Explorer:** Shows multiple Java files in the project, including `que_20.java`, `Que_32.java`, `Que_34.java`, `Que_33.java`, `que_1.java`, `que_2.java`, `que_3.java`, and `que_4.java`.
- Code Editor:** The main editor window displays the content of `que_20.java`. The code uses `Scanner` to input marks from five subjects (Hindi, English, Maths, Physics, Chemistry) and calculates the total and percentage.
- Terminal:** The terminal output shows the execution of the program and its results.
- Run Configuration:** A dropdown menu lists various run configurations, including `Run: Que_40`, `Run: Que_41`, `Run: Que_42`, `Run: que_20`, `Run: Que_33`, and `Run: que_17`.

```
import java.util.Scanner;

public class que_20 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter Hindi number");
        int a = sc.nextInt();

        System.out.println("Enter English number");
        int b = sc.nextInt();

        System.out.println("Enter Maths number");
        int c = sc.nextInt();

        System.out.println("Enter Physics number");
        int d = sc.nextInt();

        System.out.println("Enter Chemistry number");
        int e = sc.nextInt();

        int total = a + b + c + d + e;
        double percentage = total * 100 / 500;

        if (percentage >= 60) {
            System.out.println("you are passed with 1st divistion " + percentage);
        } else if (percentage >= 50 && percentage <= 59) {
            System.out.println("you are passed with 2nd divistion " + percentage);
        } else if (percentage >= 33 && percentage <= 49) {
            System.out.println("you are passed with 3rd divistion " + percentage);
        } else {
            System.out.println("you are failed");
        }
    }
}
```

Terminal Output:

```
Enter Maths number
76
Enter Physics number
66
Enter Chemistry number
56
you are passed with 1st divistion 61.0
PS C:\Users\PCLP\Desktop\infobeans>
```

Bottom status bar:

- Ln 15, Col 50
- Spaces: 4
- UTF-8
- CRLF
- { Java }
- 29°C Haze
- ENG
- 1135
- 25-09-2023

The screenshot shows a Java code editor interface with the following details:

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including "que_9.java", "que_10.java", "que_11.java", "que_12.java", "que_13.java", "que_14.java", "que_15.java", "que_16.java", "que_17.java", "que_18.java", "que_19.java", "que_20.java", and "Que_21.java".
- Code Editor:** The current file is "Que_21.java". The code checks if a rectangle is a square based on user input for length and breadth.
- Terminal:** The terminal window shows the command used to run the program: `java -cp 'C:/Users/PCLP/AppData/Roaming/Code/User/workspaceStorage/9bd1afcd48ae5df0f9e880add32d2b8/redhat.java/jdt_ws/infobeans_ade7c1e9/bin' Que_21`. It also displays the program's output: "Enter length", "2", "Enter Breadth", "2", and "It is square".
- Status Bar:** Shows the current line (Ln 20), column (Col 46), spaces (Spaces: 4), encoding (UTF-8), and file type (Java). It also displays the date and time (23-09-2023) and weather information (26°C Mostly cloudy).

```
import java.util.Scanner;

public class Que_21 {

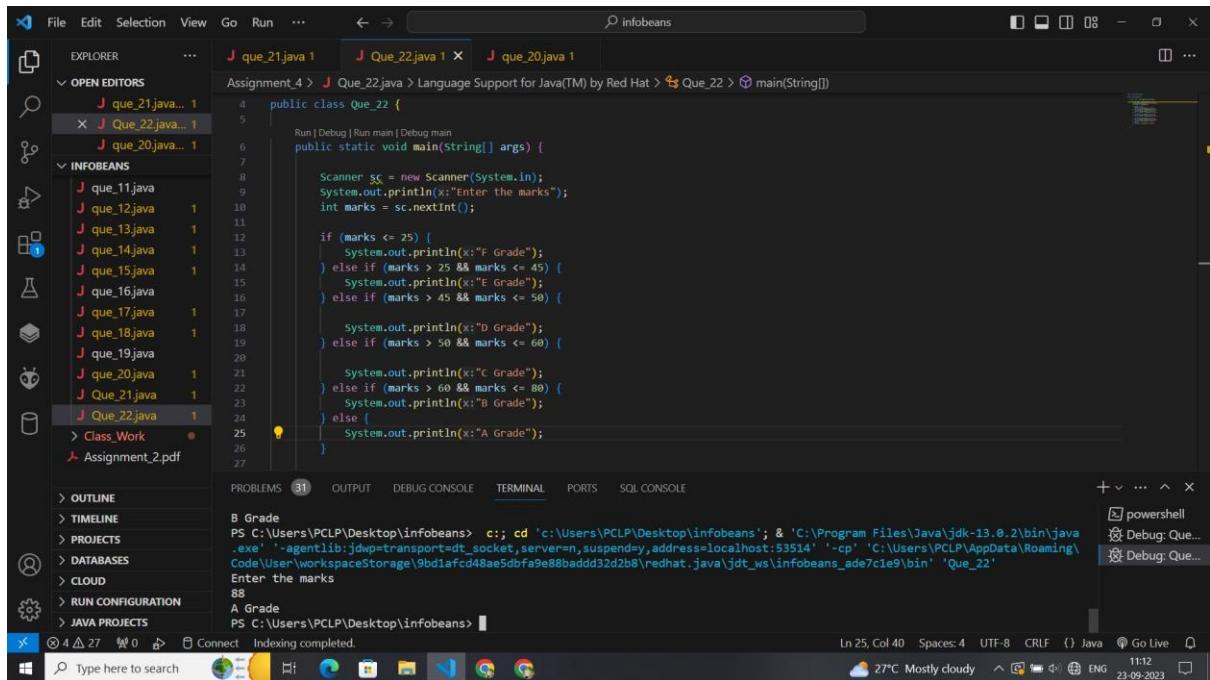
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter length");
        int length = sc.nextInt();

        System.out.println("Enter Breadth");
        int breadth = sc.nextInt();

        // square =a*a;
        if (length == breadth) {
            System.out.println("It is square");

        } else {
            System.out.println("not Square");
        }
    }
}
```



```
import java.util.Scanner;

public class Que_22 {

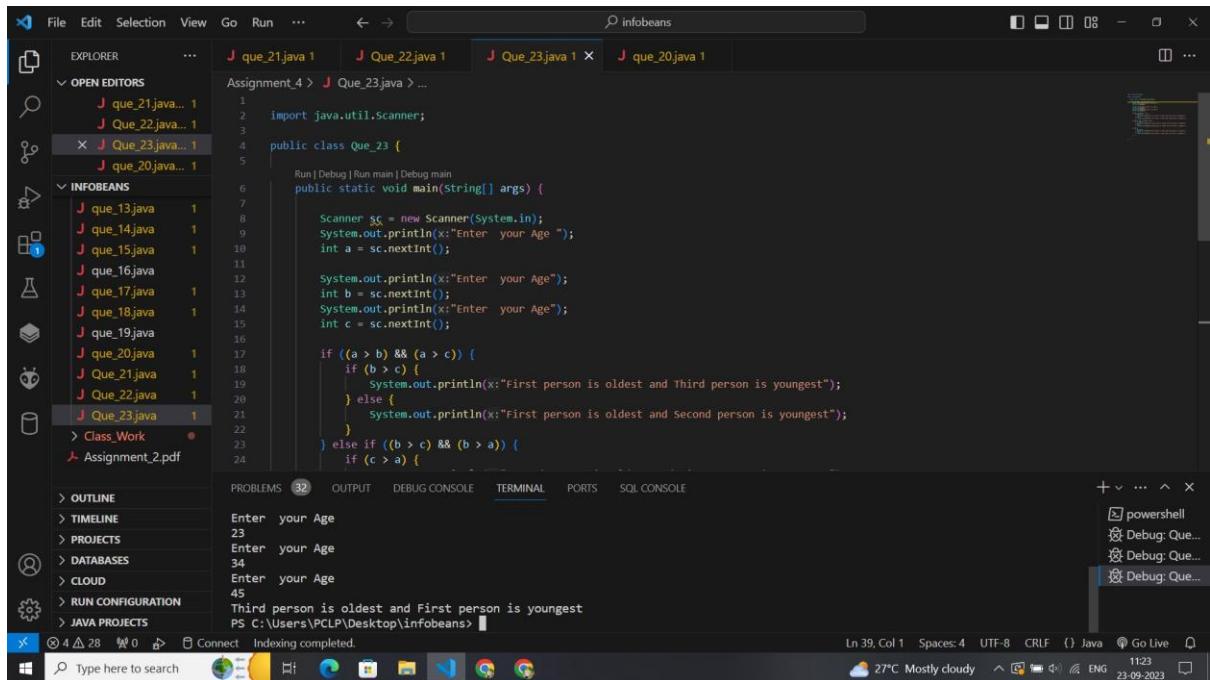
    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the marks");
        int marks = sc.nextInt();

        if (marks <= 25) {
            System.out.println("F Grade");
        } else if (marks > 25 && marks <= 45) {
            System.out.println("E Grade");
        } else if (marks > 45 && marks <= 50) {

            System.out.println("D Grade");
        } else if (marks > 50 && marks <= 60) {

            System.out.println("C Grade");
        } else if (marks > 60 && marks <= 80) {
            System.out.println("B Grade");
        } else {
            System.out.println("A Grade");
        }
    }
}
```



```
import java.util.Scanner;

public class Que_23 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter your Age ");
        int a = sc.nextInt();

        System.out.println("Enter your Age");
        int b = sc.nextInt();
        System.out.println("Enter your Age");
        int c = sc.nextInt();

        if ((a > b) && (a > c)) {
            if (b > c) {
                System.out.println("First person is oldest and Third person is youngest");
            } else {
                System.out.println("First person is oldest and Second person is youngest");
            }
        } else if ((b > c) && (b > a)) {
            if (c > a) {
                System.out.println("Second person is oldest and First person is youngest");
            } else {
                System.out.println("Second person is oldest and Third person is youngest");
            }
        } else {
            if (a > b) {
                System.out.println("Third person is oldest and Second person is youngest");
            } else {
                System.out.println("Third person is oldest and First person is youngest");
            }
        }
    }
}
```

The screenshot shows the Eclipse IDE interface. The central part is the code editor with the following Java code:

```
int a = sc.nextInt();
switch (a) {
    case 0:
        System.out.println(x:"Sunday");
        break;
    case 1:
        System.out.println(x:"Monday");
        break;
    case 2:
        System.out.println(x:"Tuesday");
        break;
    case 4:
        System.out.println(x:"Wednesday");
        break;
    case 5:
        System.out.println(x:"Thursday");
        break;
    case 6:
        System.out.println(x:"Friday");
        break;
    case 7:
        System.out.println(x:"Saturday");
        break;
}
```

The code editor has tabs for multiple files: que_21.java, Que_22.java, Que_23.java, Que_24.java (which is the active tab), and que_20.java. The left sidebar shows an Explorer view with various Java files like que_15.java through que_20.java, and an INFOBEANS view with files que_15.java through que_20.java. The bottom status bar shows the terminal output and system information.

```
import java.util.Scanner;

public class Que_24 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number ");
        int a = sc.nextInt();
        switch (a) {
            case 0:
                System.out.println("Sunday");
                break;
            case 1:
                System.out.println("Monday");
                break;
            case 2:
                System.out.println("Tuesday");
                break;
            case 3:
                System.out.println("Wednesday");
                break;
            case 4:
                System.out.println("Thursday");
                break;
            case 5:
                System.out.println("Friday");
                break;
            case 7:
                System.out.println("Saturday");
                break;
            default:
                System.out.println("choose right number");
        }
    }
}
```

A screenshot of the Visual Studio Code (VS Code) interface. The left sidebar shows the Explorer, Timeline, Projects, Databases, Cloud, Run Configuration, and Java Projects sections. The center is the Editor pane displaying a Java file named 'Que_25.java'. The code uses a switch statement to determine a grade based on a percentage input. The terminal at the bottom shows the command to run the Java application and the resulting output. The status bar at the bottom right shows the date, time, and weather.

```
char grade;
if (percentage >= 90) {
    System.out.println("A Grade");
} else if (percentage >= 80 && percentage <= 90) {
    System.out.println("B Grade");
} else if (percentage >= 60 && percentage <= 80) {
    System.out.println("C Grade");
} else {
    System.out.println("D Grade");
}
```

```
import java.util.Scanner;

public class Que_25 {

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

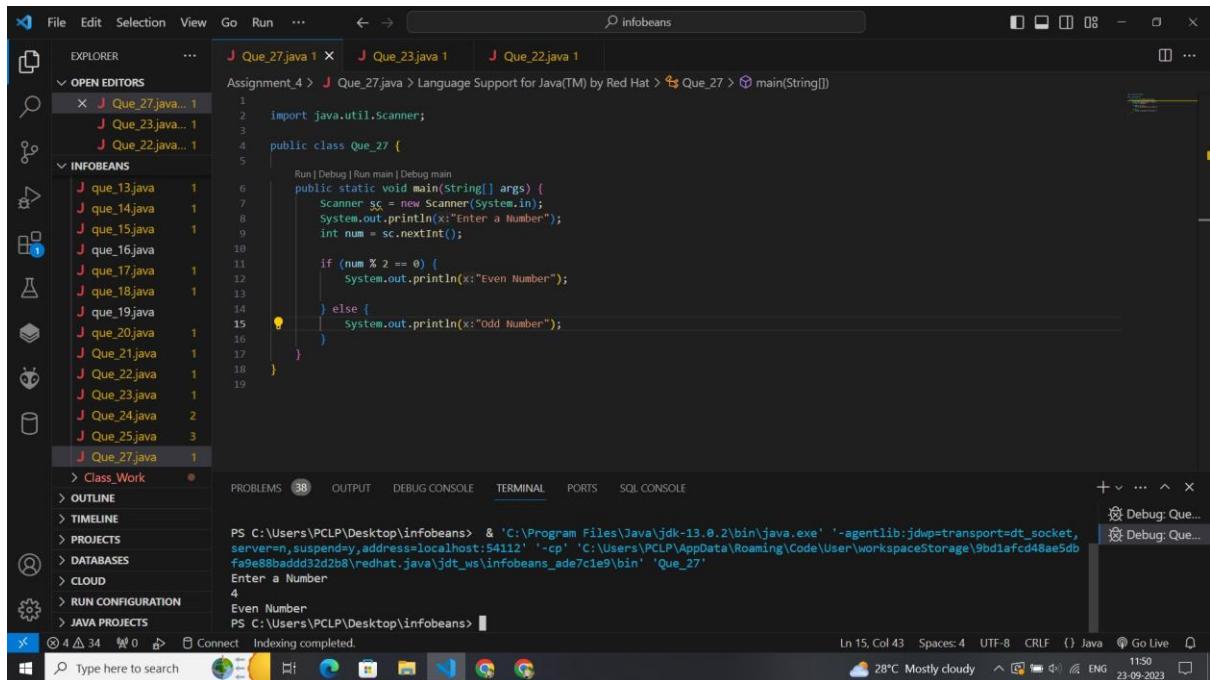
        System.out.println("Enter your percentage: ");
        double percentage = scanner.nextDouble();

        char grade;

        if (percentage >= 90) {
            System.out.println("A Grade");
        } else if (percentage >= 80 && percentage <= 90) {

            System.out.println("B Grade");

        } else if (percentage >= 60 && percentage <= 80) {
            System.out.println("C Grade");
        } else {
            System.out.println("D Grade");
        }
    }
}
```



```
import java.util.Scanner;

public class Que_27 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter a Number");
        int num = sc.nextInt();

        if (num % 2 == 0) {
            System.out.println("Even Number");

        } else {
            System.out.println("Odd Number");
        }
    }
}
```

The screenshot shows a Java development environment with the following details:

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including que_14.java, que_15.java, que_16.java, que_17.java, que_18.java, que_19.java, que_20.java, que_21.java, que_22.java, que_23.java, que_24.java, que_25.java, que_27.java, and Que_28.java.
- Code Editor:** The main editor window displays the code for Que_28.java. The code reads a character from standard input and prints whether it is a vowel or consonant.
- Terminal:** The terminal window shows the command-line output of running the program, indicating that the character 'e' is a vowel.
- Status Bar:** The status bar at the bottom right shows the date (23-09-2023), time (14:57), weather (28°C Mostly cloudy), and language (ENG).

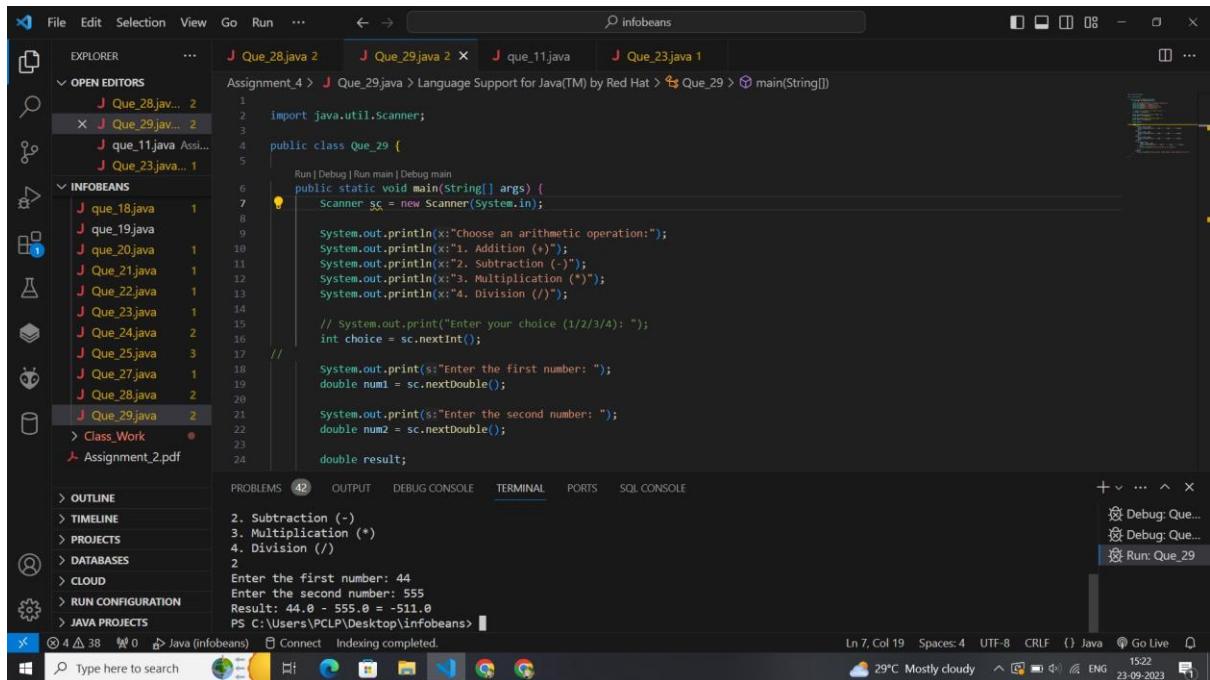
```
import java.util.Scanner;

public class Que_28 {

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

        System.out.println("enter Alphabet ");
        char str = sc.next().charAt(0);
        // ch = ch.toLowerCase();

        if (str == 'a' || str == 'e' || str == 'i' || str == 'o' || str == 'u' || str == 'A' || str == 'E' || str == 'I' || str == 'O' || str == 'U') {
            System.out.println(str + " is vowel");
        } else {
            System.out.println(str + " consonent");
        }
    }
}
```



```
import java.util.Scanner;

public class Que_29 {

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

        System.out.println("Choose an arithmetic operation:");
        System.out.println("1. Addition (+)");
        System.out.println("2. Subtraction (-)");
        System.out.println("3. Multiplication (*)");
        System.out.println("4. Division (/)");

        // System.out.print("Enter your choice (1/2/3/4): ");
        int choice = sc.nextInt();
    }

    System.out.print("Enter the first number: ");
    double num1 = sc.nextDouble();

    System.out.print("Enter the second number: ");
    double num2 = sc.nextDouble();

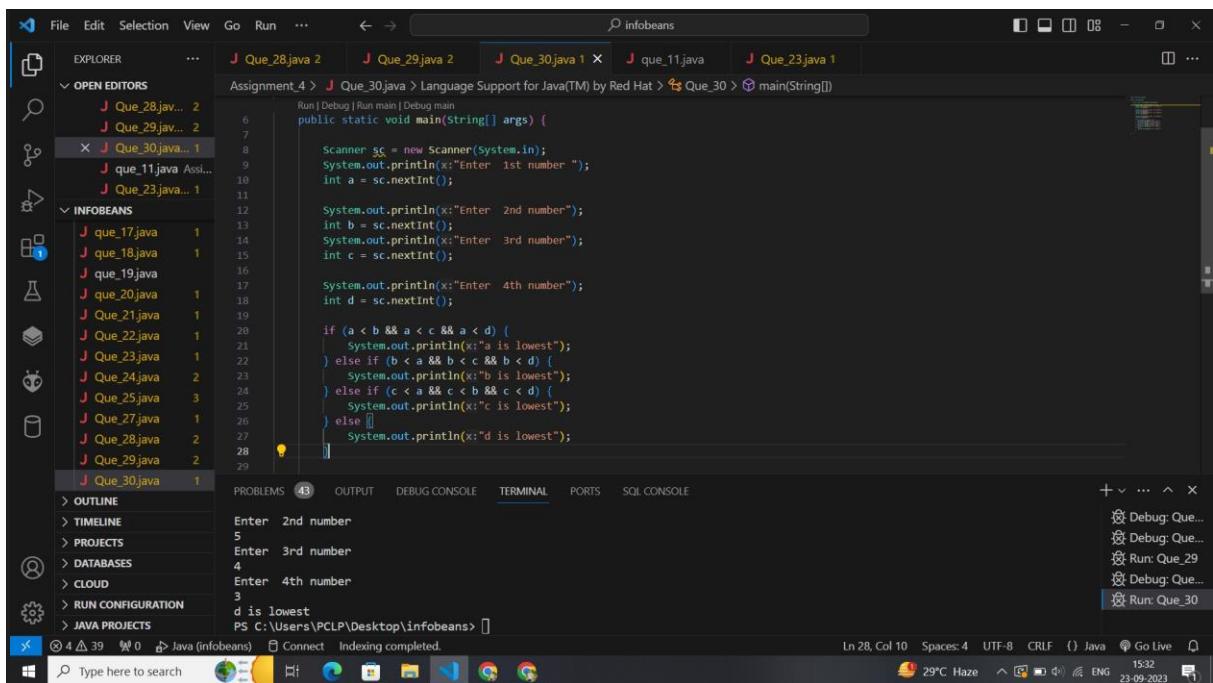
    double result;

    switch (choice) {
        case 1:
            result = num1 + num2;
            System.out.println("Result: " + num1 + " + " + num2 + " = " + result);
            break;
        case 2:
            result = num1 - num2;
            System.out.println("Result: " + num1 + " - " + num2 + " = " + result);
            break;
        case 3:
            result = num1 * num2;
```

```

        System.out.println("Result: " + num1 + " * " + num2 + " = " + result);
        break;
    case 4:
        if (num2 != 0) {
            result = num1 / num2;
            System.out.println("Result: " + num1 + " / " + num2 + " = " + result);
        } else {
            System.out.println("Division by zero is not allowed.");
        }
        break;
    default:
        System.out.println("Invalid choice. Please choose a valid operation
(1/2/3/4).");
    }
}

```



```

import java.util.Scanner;

public class Que_30 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter 1st number ");
        int a = sc.nextInt();

        System.out.println("Enter 2nd number");
        int b = sc.nextInt();
        System.out.println("Enter 3rd number");
        int c = sc.nextInt();

        System.out.println("Enter 4th number");

```

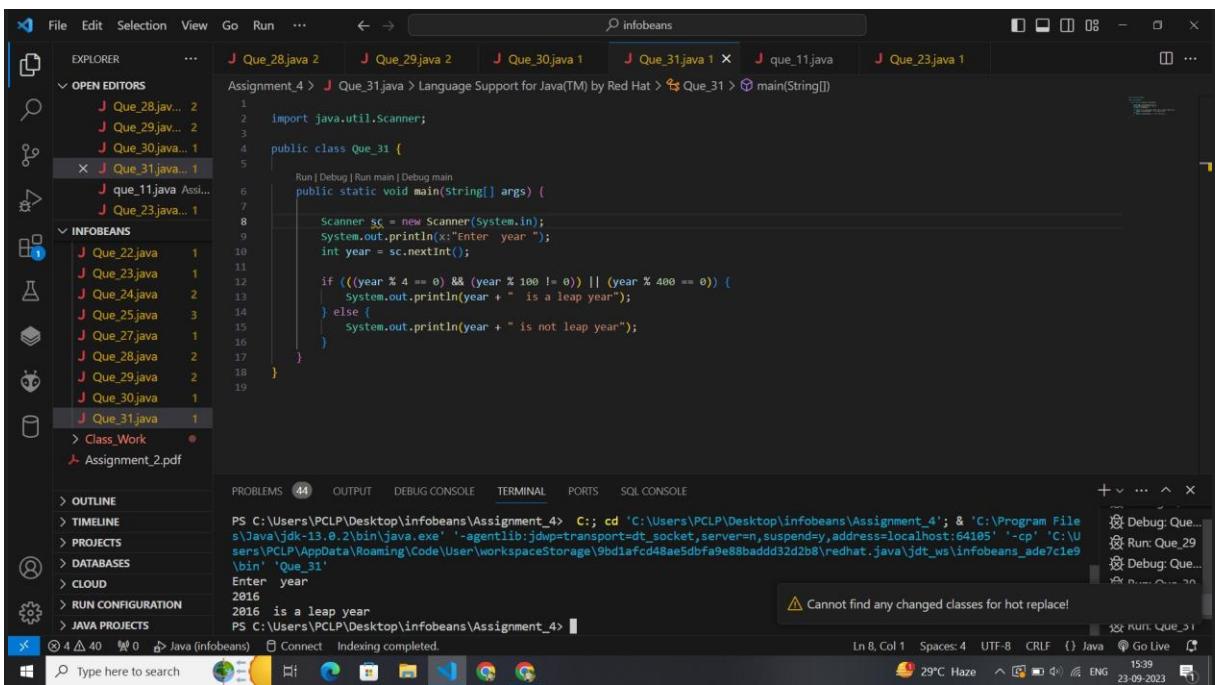
```

        int d = sc.nextInt();

        if (a < b && a < c && a < d) {
            System.out.println("a is lowest");
        } else if (b < a && b < c && b < d) {
            System.out.println("b is lowest");
        } else if (c < a && c < b && c < d) {
            System.out.println("c is lowest");
        } else {
            System.out.println("d is lowest");
        }

    }
}

```



```

import java.util.Scanner;

public class Que_31 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter year ");
        int year = sc.nextInt();

        if (((year % 4 == 0) && (year % 100 != 0)) || (year % 400 == 0)) {
            System.out.println(year + " is a leap year");
        } else {
            System.out.println(year + " is not leap year");
        }
    }
}

```

The screenshot shows the Eclipse IDE interface with the following details:

- File Bar:** File, Edit, Selection, View, Go, Run, ...
- Title Bar:** infobeans
- Toolbar:** Standard Eclipse toolbar icons.
- Left Sidebar (Explorer):** Shows a tree view of files and projects. The "INFOBEANS" section is expanded, showing files like Que_20.java through Que_31.java, Que_32.java, and Assignment_2.pdf.
- Central Area (Editor):** Displays the Java code for Que_32.java. The code uses Scanner to read two integers from the user and prints which one is greater.
- Bottom Status Bar:** Shows the current file (Java (infobeans)), indexing status (Indexing completed), and system information (29°C Haze, ENG, 1550, 23-09-2023).

```
import java.util.Scanner;

public class Que_32 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number ");

        int a = sc.nextInt();
        System.out.println("Enter number ");

        int b = sc.nextInt();

        if (a > b) {
            System.out.println(a + " a is greater");
        } else {
            System.out.println(b + " b is greater");
        }
    }
}
```

The screenshot shows the Eclipse IDE interface. The left sidebar contains the Explorer view with various Java files listed under 'OPEN EDITORS' and 'INFOBEANS'. The central area is the code editor for 'Que_33.java'. The code swaps two integers without using a third variable. The terminal below shows the execution output.

```
System.out.print("Enter the first number: ");
int a = scanner.nextInt();

System.out.print("Enter the second number: ");
int b = scanner.nextInt();

System.out.println("Before swapping:");
System.out.println("First number: " + a);
System.out.println("Second number: " + b);

// Swap the values without a third variable
a = a + b;
b = a - b;
a = a - b;

System.out.println("After swapping:");
System.out.println("First number: " + a);
System.out.println("Second number: " + b);

scanner.close();
```

```
import java.util.Scanner;

public class Que_33 {

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

        System.out.print("Enter the first number: ");
        int a = scanner.nextInt();

        System.out.print("Enter the second number: ");
        int b = scanner.nextInt();

        System.out.println("Before swapping:");
        System.out.println("First number: " + a);
        System.out.println("Second number: " + b);

        // Swap the values without a third variable
        a = a + b;
        b = a - b;
        a = a - b;

        System.out.println("After swapping:");
        System.out.println("First number: " + a);
        System.out.println("Second number: " + b);

        scanner.close();
    }
}
```

The screenshot shows the Eclipse IDE interface. The Java editor displays the following code for `Que_34.java`:

```
1 import java.util.Scanner;
2
3 public class Que_34 {
4
5     public static void main(String[] args) {
6
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter number ");
9
10        int a = sc.nextInt();
11        System.out.println("Enter number ");
12
13        int b = sc.nextInt();
14        System.out.println("Enter number ");
15
16        int c = sc.nextInt();
17
18        if (a > b && a > c) {
19            System.out.println(a + " a is greater");
20        } else if (b > a && b > c) {
21            System.out.println(b + " b is greater");
22        } else {
23            System.out.println(c + " c is greater");
24        }
25    }
26}
```

The terminal window shows the output of running the program:

```
Enter number
12
Enter number
23
Enter number
34
34 c is greater
```

```
import java.util.Scanner;

public class Que_34 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number ");

        int a = sc.nextInt();
        System.out.println("Enter number ");

        int b = sc.nextInt();
        System.out.println("Enter number ");

        int c = sc.nextInt();

        if (a > b && a > c) {
            System.out.println(a + " a is greater");
        } else if (b > a && b > c) {

            System.out.println(b + " b is greater");
        } else {
            System.out.println(c + " c is greater");
        }
    }
}
```

The screenshot shows a Java development environment with the following details:

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Run, Debug, Run main, Debug main
- Editor:** The code for `Que_36.java` is displayed. It uses a `Scanner` to read a basic salary from the user and calculates a gross salary based on different salary ranges.
- Output:** The terminal shows the command to run the program and the output: "Enter The Basic Salary :25000" followed by "Gross Salary : 56250".
- Run Configuration:** Shows options for running the code, including "Run: Que_34", "Run: Que_36", and "Run: que_13".
- Bottom Bar:** Includes a search bar, system icons, and system status like temperature (29°C), battery level (Haze), and date/time (23-09-2023).

```
import java.util.Scanner;

public class Que_36 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);
        System.out.print("Enter The Basic Salary :");
        int bs = input.nextInt();
        float HRA, DA, total;

        if (bs <= 10000) {

            HRA = bs * 0.2f;
            DA = bs * 0.8f;
            total = bs + HRA + DA;
            System.out.println("Gross Salary : " + total);
        } else if (bs <= 20000) {
            HRA = bs * 0.25f;
            DA = bs * 0.9f;
            total = bs + HRA + DA;
            System.out.println("Gross Salary : " + total);
        } else {
            HRA = bs * 0.3f;
            DA = bs * 0.95f;
            total = bs + HRA + DA;
            System.out.println("Gross Salary : " + total);
        }
        // total = bs + HRA + DA;
        // System.out.println("Gross Salary : " + total);

    }
}
```

The screenshot shows a Java development environment with the following details:

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections.
- Code Editor:** The file "Que_37.java" is open, displaying Java code for calculating electricity bills based on unit charges. The code uses conditional statements (if-else) and loops to determine the total bill.
- Terminal:** A terminal window at the bottom shows the command line and output of running the Java code.
- Bottom Bar:** Includes icons for file operations, search, and system status (weather, date, time).

```
import java.util.Scanner;

public class Que_37 {

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

        System.out.print("Enter the electricity unit charges: ");
        double units = scanner.nextDouble();

        double totalBill = 0.0;

        if (units <= 50) {
            totalBill = units * 0.50;
        } else if (units <= 150) {
            totalBill = 50 * 0.50 + (units - 50) * 0.75;
        } else if (units <= 250) {
            totalBill = 50 * 0.50 + 100 * 0.75 + (units - 150) * 1.20;
        } else {
            totalBill = 50 * 0.50 + 100 * 0.75 + 100 * 1.20 + (units - 250) * 1.50;
        }

        // Add a 20% surcharge to the total bill
        totalBill *= 1.20;

        System.out.println("Total electricity bill: Rs. " + totalBill);
    }
}
```

A screenshot of a Java development environment. The top menu bar includes File, Edit, Selection, View, Go, Run, Terminal, Help, and a series of back/forward arrows. The title bar says "infobeans". The left sidebar shows an Explorer view with files like Que_44.java, Que_37.java, Que_38.java (which is currently selected), Que_31.java, Que_30.java, Que_23.java, Que_29.java, and que_4.java. Below the Explorer is an INFOBEANS section listing various Java files. The main workspace displays the code for Que_38.java. The code uses a Scanner to get user input for two numbers and a switch statement to perform addition, comparison, or equality checks. The terminal below the code shows the execution of the program. The bottom status bar provides information about the current file (Assignment_2.pdf), the terminal (PS C:\Users\PCPL\Desktop\infobeans>), and the system (28°C Partly sunny, 11:09, 25-09-2023).

```
Assignment_2 > J Que_38.java Language Support for Java(TM) by Red Hat > Que_38 > main(String[])
```

```
1. System.out.print("Enter your choice: ");
2. char choice = scanner.next().charAt(0);
3. System.out.print("Enter the first number: ");
4. double num1 = scanner.nextDouble();
5. System.out.print("Enter the second number: ");
6. double num2 = scanner.nextDouble();
7. switch (choice) {
8.     case '+':
9.         double sum = num1 + num2;
10.        System.out.println("Result: " + sum);
11.        break;
12.    case '>':
13.        if (num1 > num2) {
14.            System.out.println(num1 + " is greater than " + num2);
15.        } else if (num2 > num1) {
16.            System.out.println(num2 + " is greater than " + num1);
17.        } else {
18.            System.out.println("Both numbers are equal.");
19.        }
20.    case '=':
21.        if (num1 == num2) {
22.            System.out.println("Both numbers are equal.");
23.        } else {
24.            System.out.println("Numbers are not equal.");
25.        }
26.    default:
27.        break;
28. }
```

```
import java.util.Scanner;

public class Que_38 {

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

        System.out.println("Choose an operation:");
        System.out.println("1. Addition (+)");
        System.out.println("2. Greater Than (>)");
        System.out.println("3. Equality (==)");

        System.out.print("Enter your choice: ");
        char choice = scanner.next().charAt(0);
        System.out.print("Enter the first number: ");
        double num1 = scanner.nextDouble();
        System.out.print("Enter the second number: ");
        double num2 = scanner.nextDouble();

        switch (choice) {
            case '+':
                double sum = num1 + num2;
                System.out.println("Result: " + sum);
                break;

            case '>':
                if (num1 > num2) {
                    System.out.println(num1 + " is greater than " + num2);
                } else if (num2 > num1) {
                    System.out.println(num2 + " is greater than " + num1);
                } else {
                    System.out.println("Both numbers are equal.");
                }
        }
    }
}
```

```

        break;

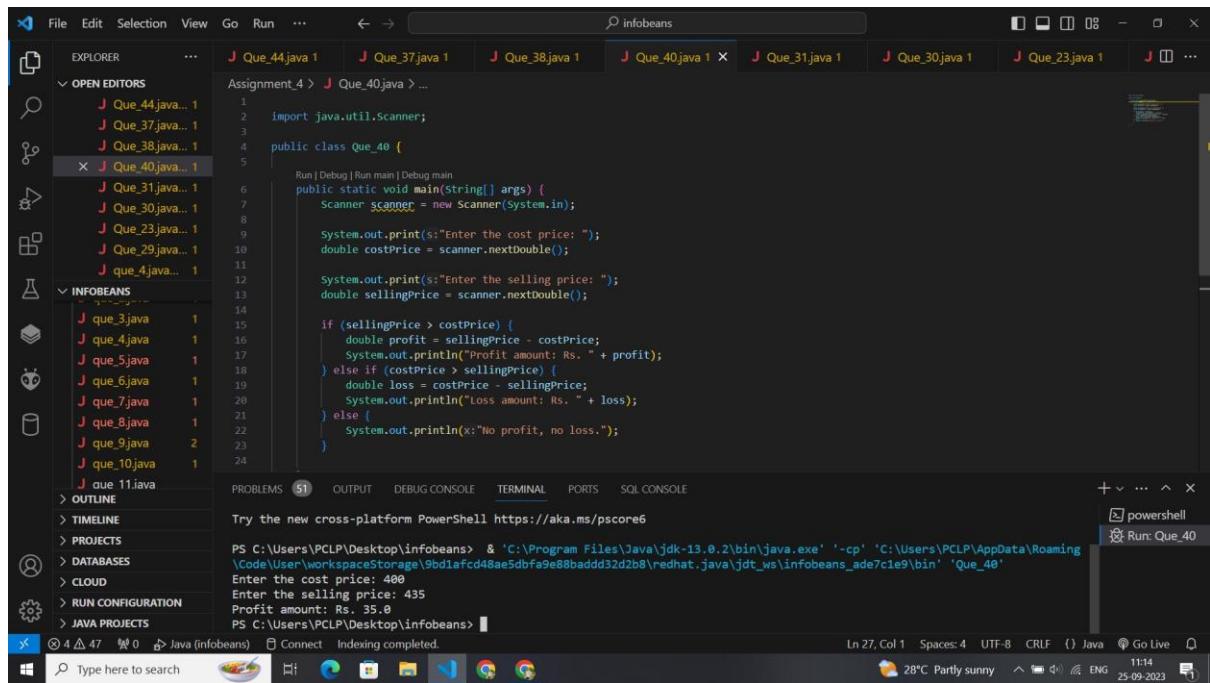
    case '=':

        if (num1 == num2) {
            System.out.println("Both numbers are equal.");
        } else {
            System.out.println("Numbers are not equal.");
        }
        break;

    default:
        System.out.println("Invalid choice. Please choose '+', '>', or '=='.");
        break;
    }

}

```



```

import java.util.Scanner;

public class Que_40 {

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

        System.out.print("Enter the cost price: ");
        double costPrice = scanner.nextDouble();

        System.out.print("Enter the selling price: ");
        double sellingPrice = scanner.nextDouble();

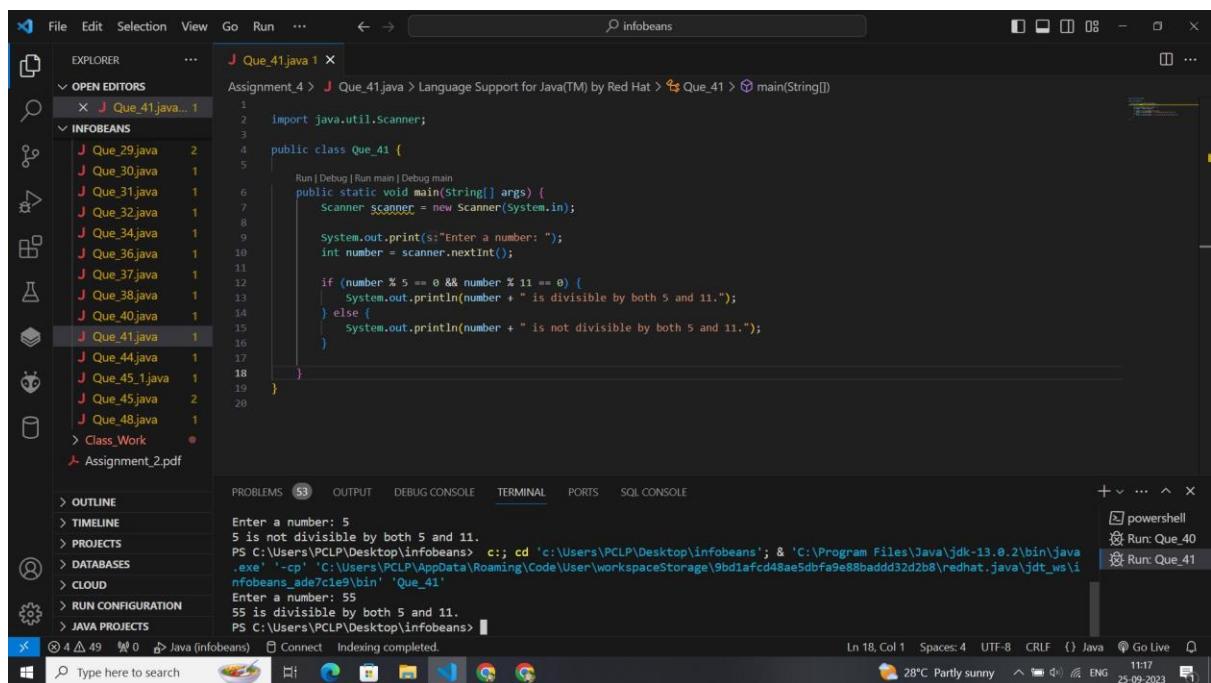
        if (sellingPrice > costPrice) {

```

```

        double profit = sellingPrice - costPrice;
        System.out.println("Profit amount: Rs. " + profit);
    } else if (costPrice > sellingPrice) {
        double loss = costPrice - sellingPrice;
        System.out.println("Loss amount: Rs. " + loss);
    } else {
        System.out.println("No profit, no loss.");
    }
}
}

```



```

import java.util.Scanner;

public class Que_41 {

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

        System.out.print("Enter a number: ");
        int number = scanner.nextInt();

        if (number % 5 == 0 && number % 11 == 0) {
            System.out.println(number + " is divisible by both 5 and 11.");
        } else {
            System.out.println(number + " is not divisible by both 5 and 11.");
        }
    }
}

```

```
File Edit Selection View Go Run ... ← → infobeans
EXPLORER J Que_41.java 1 J Que_42.java 2
OPEN EDITORS Assignment_4 > J Que_42.java > Language Support for Java(TM) by Red Hat > Que_42 > main(String[])
10 System.out.print("Angle 1: ");
11 int angle1 = scanner.nextInt();
12 System.out.print("Angle 2: ");
13 int angle2 = scanner.nextInt();
14 System.out.print("Angle 3: ");
15 int angle3 = scanner.nextInt();
16
17 // Check if the sum of angles is equal to 180 degrees
18 if (angle1 + angle2 + angle3 == 180) {
19     System.out.println("These angles can form a valid triangle.");
20 } else {
21     System.out.println("These angles cannot form a valid triangle.");
22 }
23
24 }
25
26
27 }
28

PROBLEMS 65 OUTPUT DEBUG CONSOLE TERMINAL PORTS SQL CONSOLE
powershell
Run: Que_40
Run: Que_41
Run: Que_42
+ v ^ x
Ln 24, Col 9 Spaces: 4 UTF-8 CRLF {} Java Go Live
28°C Partly sunny ENG 11:19 25-09-2023
```

```
import java.util.Scanner;

public class Que_42 {

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

        System.out.println("Enter the three angles of the triangle:");
        System.out.print("Angle 1: ");
        int angle1 = scanner.nextInt();
        System.out.print("Angle 2: ");
        int angle2 = scanner.nextInt();
        System.out.print("Angle 3: ");
        int angle3 = scanner.nextInt();

        // Check if the sum of angles is equal to 180 degrees
        if (angle1 + angle2 + angle3 == 180) {
            System.out.println("These angles can form a valid triangle.");
        } else {
            System.out.println("These angles cannot form a valid triangle.");
        }

    }

}
```

The screenshot shows a Java development environment with the following details:

- File Explorer:** Shows multiple Java files (Que_41.java, Que_42.java, Que_44.java, que_20.java, que_21.java, que_22.java, que_23.java, que_24.java, que_25.java) and a PDF file (Class_Work.pdf).
- Editor:** The main editor window displays the code for **Que_44.java**. The code calculates the total cost based on quantity and applies a 10% discount if the total cost is above 1000.
- Terminal:** The terminal window shows the command being run: `PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88badd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Que_44'`. It also shows the user input "Enter the quantity: 24" and the output "10% Discount Applied! Total Cost: 2160".
- Bottom Bar:** Includes tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, and SQL CONSOLE. It also shows system information like CPU usage (5%), memory (57%), disk (0), Java version (11.53), and a Go Live button.

```
import java.util.Scanner;

public class Que_44 {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        // Ask the user for the quantity
        System.out.print("Enter the quantity: ");
        int quantity = scanner.nextInt();

        // Define the cost per unit
        int costPerUnit = 100;

        // Calculate the total cost
        int totalCost = quantity * costPerUnit;

        // Check if a discount should be applied
        if (totalCost > 1000) {
            // Apply a 10% discount
            double discountAmount = 0.10 * totalCost;
            totalCost -= discountAmount;
            System.out.println("10% Discount Applied!");
        }

        // Print the total cost
        System.out.println("Total Cost: " + totalCost);

    }
}
```

The screenshot shows a Java development environment with the following details:

- File Explorer:** Shows multiple Java files (Que_41.java... 1, Que_42.java... 2, Que_44.java 1, Que_45_1.java 2, que_20.java 1, Que_21.java 1, Que_22.java 1) and an assignment file (Assignment_4.pdf).
- Code Editor:** Displays the content of Que_45_1.java. The code reads a salary and years of service from the user, calculates a bonus if the years of service are greater than 5, and prints a message accordingly.
- Terminal:** Shows the command PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\bdb1afcd48ae5dbfa9e88bddd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Que_45_1'. It then prompts for salary and years of service, and outputs "Sorry, you are not eligible for a bonus."
- Status Bar:** Shows the current line (Ln 24, Col 2), spaces (Spaces: 4), encoding (UTF-8), and file type (Java). It also displays the date (25-09-2023) and time (11:53).

```
import java.util.Scanner;

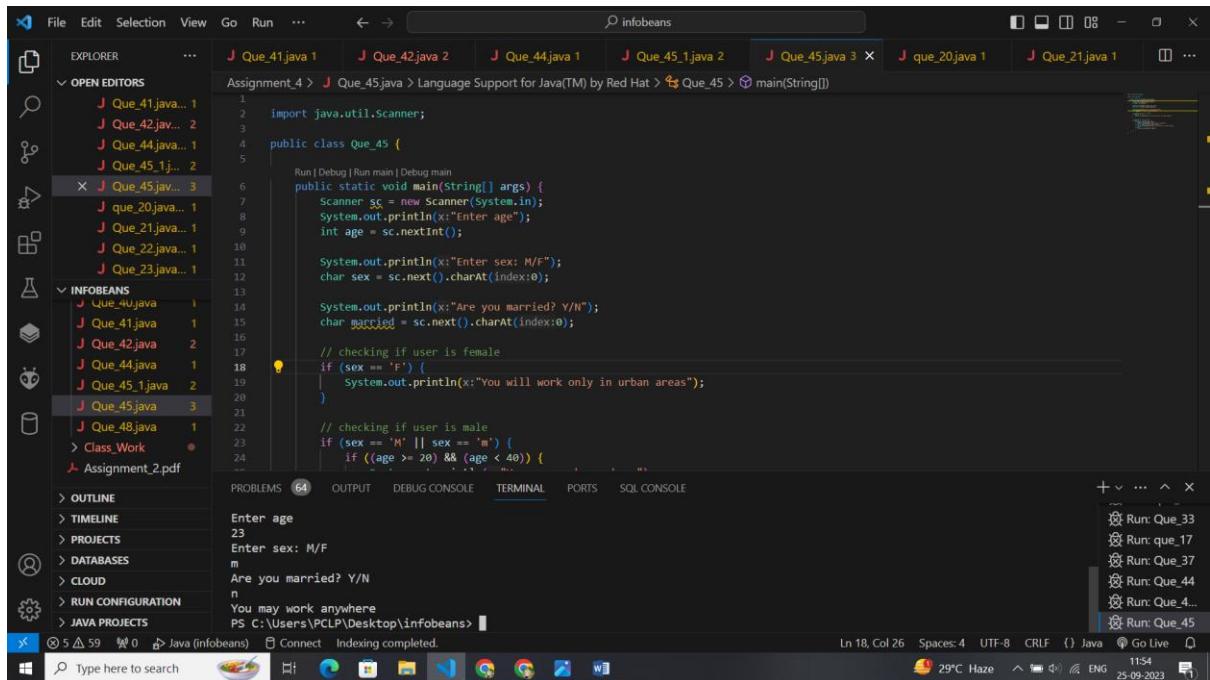
public class Que_45_1 {

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

        System.out.print("Enter your salary: ");
        double salary = scanner.nextDouble();

        System.out.print("Enter your years of service: ");
        int yearsOfService = scanner.nextInt();

        double bonus = 0.0;
        if (yearsOfService > 5) {
            bonus = 0.05 * salary;
            System.out.println("Congratulations! You are eligible for a bonus.");
            System.out.println("Your bonus amount is: " + bonus);
        } else {
            System.out.println("Sorry, you are not eligible for a bonus.");
        }
    }
}
```



```
import java.util.Scanner;

public class Que_45 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter age");
        int age = sc.nextInt();

        System.out.println("Enter sex: M/F");
        char sex = sc.next().charAt(0);

        System.out.println("Are you married? Y/N");
        char married = sc.next().charAt(0);

        // checking if user is female
        if (sex == 'F') {
            System.out.println("You will work only in urban areas");
        }

        // checking if user is male
        if (sex == 'M' || sex == 'm') {
            if ((age >= 20) && (age < 40)) {
                System.out.println("You may work anywhere");
            } else if ((age >= 40) && (age < 60)) {
                System.out.println("You will work only in urban areas");
            } else {
                System.out.println("ERROR");
            }
        }
    }
}
```

The screenshot shows a Java code editor interface with the following details:

- File Explorer:** Shows multiple Java files (Que_41.java... 1, Que_42.java... 2, Que_44.java 1, Que_45_1.java 2, Que_45.java 3, Que_48.java 1, que_20.java 1, Que_21.java... 1, Que_22.java... 1) and a PDF file (Assignment_2.pdf).
- Editor:** Displays the content of `Que_48.java`. The code uses a Scanner to read an integer from standard input and prints whether it is positive or negative.
- Output:** Shows the terminal output of running the program with the input "23". It prints "positive number is : 23".
- Run:** A sidebar on the right lists several run configurations, including "Run: que_17", "Run: Que_37", "Run: Que_44", "Run: Que_4...", "Run: Que_45", and "Run: Que_48".

```
import java.util.Scanner;

public class Que_48 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter number :");
        int a = input.nextInt();

        if (a >= 0) {
            System.out.println("positive number is : " + a);

        } else {
            System.out.println("negative number is : " + a);
        }
    }
}
```