

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

- File Structure (EXPLORER):** Shows multiple Java files in the project, including `J Practice1.java`, `J Practice_04.java`, `J Practice1.java`, `J Practice2.java`, `J Practice3.java`, `J Practice4.java`, `J Practice5.java`, `J Practice6.java`, `J Practice7.java`, `J Practice8.java`, `J Practice9.java`, `J Practice10.java`, `J Practice11.java`, `J Practice14.java`, `J Practice16.java`, `J Practice17.java`, `J Practice18.java`, and `J Practice19.java`.
- Code Editor (J Practice1.java):** Displays the following Java code:

```
// package Assignment_5;
//Q1. wap to print number 1 to 100.
//import java.util.Scanner;
public class Practice1 {

    public static void main(String args[]) {
        //Scanner input = new Scanner(System.in);
        for (int i = 1; i <= 100; i++) {
            System.out.print(i + " ");
        }
    }
}
```
- Terminal (OUTPUT):** Shows the command-line output of the Java application:

```
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\9bd1afcd48ae5dfa9e88badd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'Practice1'
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 5
0 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96
97 98 99 100
PS C:\Users\PCLP\Desktop\infobeans>
```
- Bottom Status Bar:** Includes information such as Ln 1, Col 25, Spaces:4, UTF-8, CRLF, Java, Go Live, 25°C Clear, 2244, ENG, and 01-10-2023.

```
// package Assignment_5;
```

```
//Q1. wap to print number 1 to 100.
//import java.util.Scanner;
public class Practice1 {

    public static void main(String args[]) {
        //Scanner input = new Scanner(System.in);
        for (int i = 1; i <= 100; i++) {
            System.out.print(i + " ");
        }
    }
}
```

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

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including Practice1.java, Practice2.java, Practice3.java, Practice4.java, Practice5.java, Practice6.java, Practice7.java, Practice8.java, Practice9.java, Practice10.java, Practice11.java, Practice14.java, Practice16.java, Practice17.java, and Practice18.java.
- Code Editor:** The main editor window displays the content of Practice2.java. The code is as follows:

```
//Q2. wap to print even numbers between 1 to 20

// package Assignment_5;

public class Practice2 {

    public static void main(String args[]) {
        for (int i = 1; i <= 20; i++) {
            if (i % 2 == 0) {
                System.out.println(i);
            }
        }
    }
}
```

The code prints even numbers from 1 to 20. The editor interface includes tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, and SQL CONSOLE. The status bar at the bottom shows the file path C:\Users\PCLP\Desktop\infobeans\, line 2, column 25, and other system information like weather and date.

The screenshot shows a Microsoft Visual Studio Code (VS Code) interface. The left sidebar contains icons for Explorer, Open Editors, InfoBeans, Outline, Timeline, Projects, Databases, Cloud, Run Configuration, and Java Projects. The main editor area has tabs for Practice1.java, Practice2.java, and Practice3.java. Practice3.java is the active tab, displaying the following Java code:

```
//Q3. wap to print cube of 1 to 5 number.  
// package Asignment_5;  
  
public class Practice3 {  
  
    public static void main(String args[]) {  
        for (int i = 1; i <= 5; i++) {  
            int cube = i * i * i;  
            System.out.println(cube);  
        }  
    }  
}
```

The bottom status bar shows the file path as 'infobeans\ade7c1e9\bin\' and the command line as 'PS C:\Users\PCLP\Desktop\infobeans>'. It also displays the current date and time as '01-10-2023'.

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Standard icons for file operations.
- Editor:** Shows the code for `Practice4.java`. The code checks if a given number is prime or not.
- Terminal:** Displays the command-line output of the program running in the terminal.
- Status Bar:** Shows system information like battery level (68%), CPU usage (53%), memory (8G), and network (WIFI).

```
//Q4. wap to check if a number is prime or not .  
  
// package Assignment_5;  
  
import java.util.Scanner;  
  
public class Practice4 {  
  
    public static void main(String args[]) {  
        Scanner input = new Scanner(System.in);  
        System.out.println("Enter the number");  
        int num = input.nextInt();  
        for (int i = 2; i <= num / 2; i++) {  
            if (num % i == 0) {  
                System.out.println("Not prime");  
                break;  
            } else {  
                System.out.println("Prime");  
                // break;  
            }  
        }  
    }  
}
```

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Back, Forward, Home, Infobean
- Editor:** The main code editor displays a Java file named `Practice5.java`. The code prints a Fibonacci series using a for loop.

```
//5. wap to print fibonacci series using for loop i.e adding
//last two results ex 0 1 1 2 3 5 8 13 21 34
// package Assignment_5;

import java.util.Scanner;

public class Practice5 {

    public static void main(String[] args) {
        System.out.println("Enter the term");
        Scanner input = new Scanner(System.in);
        int n = input.nextInt();
        int num1 = 0, num2 = 1;
        int sum = 0;
        for (int i = 1; i < n; i++) {

            sum = num1 + num2;
            num1 = num2;
            num2 = sum;
            System.out.println(sum);

        }
    }
}
```

- Output:** The terminal window shows the command to run the file and the resulting output for the term 5.

```
\Code\user\workspaceStorage\9bd1afcd48ae5dbfa9e88badd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'Practice5'
Enter the term
5
1
2
3
5
```

- Run Configuration:** A dropdown menu lists multiple run configurations for the file `Practice5.java`.

The screenshot shows a Java development environment with multiple tabs open. The active tab is 'J Practice6.java' containing the following code:

```
//6 wap to print factorial of a number
//5*4*3*2*1
// package Assignment_5;

import java.util.Scanner;

public class Practice6 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the number");
        int num = input.nextInt();
        int fact = 1;
        for (int i = 1; i <= num; i++) {
            fact = fact * i;
        }
        System.out.println(fact + " ");
    }
}
```

The code is a Java program that calculates the factorial of a given number. It uses a for loop to iterate from 1 to the input number, multiplying the current value of fact by the loop variable i in each iteration. Finally, it prints the result followed by a space.

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

- File Bar:** File, Edit, Selection, View, Go, Run, ...
- Search Bar:** infobeans
- Toolbar:** Standard icons for file operations.
- Left Sidebar:**
 - EXPLORER: Shows a tree view of files and projects, with "J Practice7.java" highlighted.
 - OPEN EDITORS: A list of Java files: Practice1.java, Practice2.java, Practice3.java, Practice4.java, Practice5.java, Practice6.java, and J Practice7.java.
 - INFOBEANS: A list of Java files: Practice_0.java, Practice_2.java, Practice_3.java, Practice_4.java, Practice_5.java, Practice_6.java, and J Practice7.java.
 - Outline, Timeline, Projects, Databases, Cloud, Run Configuration, Java Projects: Standard IDE navigation items.
- Code Editor:** The main window displays the code for J Practice7.java. The code is as follows:

```
//7 wap to ask a number from user and print table of that number
// package Assignment_5;

import java.util.Scanner;

public class Practice7 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the number");
        int num = input.nextInt();
        for (int i = 1; i <= 10; i++) {
            int ans = num * i;
            System.out.println(ans);
        }
    }
}
```

The code editor includes standard UI elements like tabs, status bar, and a search bar at the bottom.

```
//7 wap to ask a number from user and print table of that number
// package Assignment_5;

import java.util.Scanner;

public class Practice7 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the number");
        int num = input.nextInt();
        for (int i = 1; i <= 10; i++) {
            int ans = num * i;
            System.out.println(ans);
        }
    }
}
```

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Includes icons for file operations like Open, Save, and Print.
- Search Bar:** Infobeans
- Editor Area:** Shows a Java file named `J Practice8.java As...` with the following code:

```
//Q8 wap to print prime numbers between 2 to 20

// package Assignment_5;

public class Practice8 {

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

        int num = 20;
        // boolean flag = false;
        int count = 0;
        for (int i = 2; i <= num; i++) {
            // condition for nonprime number
            if (num % i == 0) {
                // flag = true;
                count++;
                // break;
            }

            if (count == 2) {
                System.out.println(num + " is a prime number.");
            } else {
                System.out.println(num + " is not a prime number.");
            }
        }
    }
}
```
- Output Area:** Shows command-line output from a PowerShell session:

```
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\b0b1fcfd4ae5dfa9e88badd32d2b8\redhat.java\jdt_ws\infobeans_a0e7c1e9\bin' 'Practice8'
20 is not a prime number.
PS C:\Users\PCLP\Desktop\infobeans>
```
- Bottom Status Bar:** Shows system information: 64 ▲ 57, Connect, Indexing completed, Type here to search, and various system icons.
- Bottom Right:** Weather (25°C), Date (01-10-2023), and Time (22:57).

```
//9. WAP to print a statement 1000 number of times.

// package Assignment_5;

public class Practice9 {

    public static void main(String[] args) {
        for (int i = 1; i <= 1000; i++) {
            System.out.println("This is statements");
        }
    }
}
```

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

- File Explorer:** Shows several Java files under "OPEN EDITORS" and "INFOBEANS".
- Code Editor:** The file "Practice10.java" is the active editor, displaying the following code:

```
//10.WAP to print N natural number.

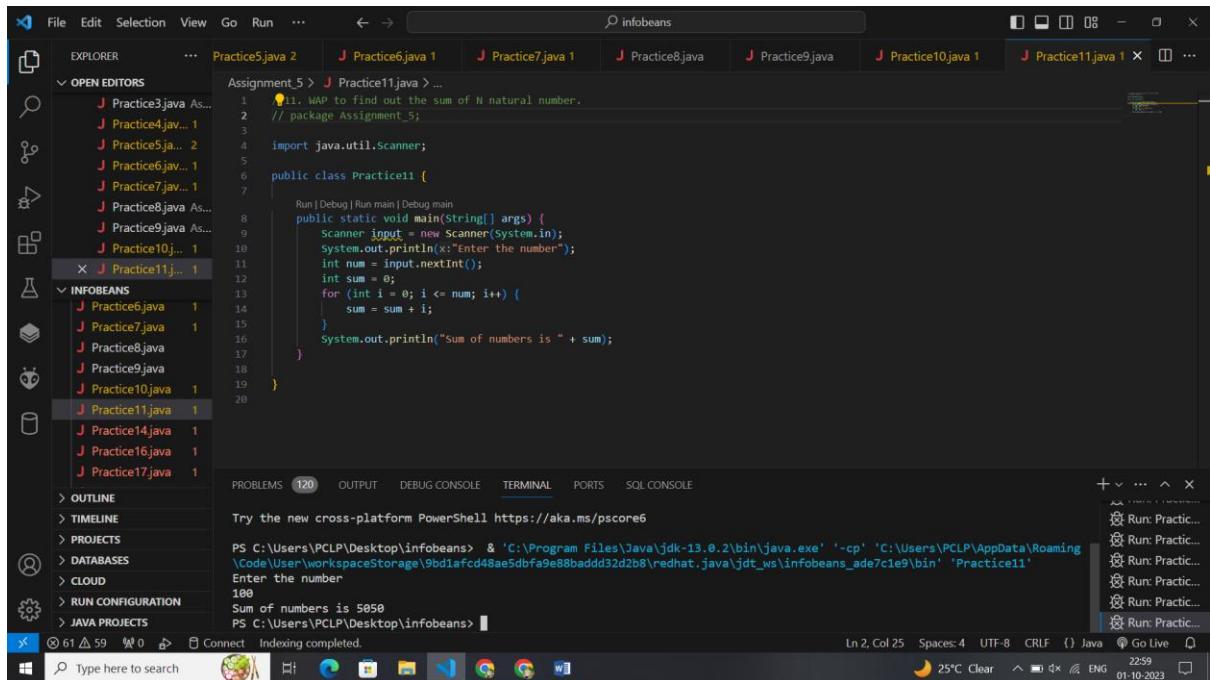
// package Assignment_5;

import java.util.Scanner;

public class Practice10 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the number");
        int num = input.nextInt();
        for (int i = 0; i <= num; i++) {
            System.out.println(i);
        }
    }
}
```

The code is a Java program that prints natural numbers from 0 to a user-specified number. It uses a Scanner to read input from the console and a for loop to print each number.



```
//11. WAP to find out the sum of N natural number.
// package Assignment_5;

import java.util.Scanner;

public class Practice11 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the number");
        int num = input.nextInt();
        int sum = 0;
        for (int i = 0; i <= num; i++) {
            sum = sum + i;
        }
        System.out.println("Sum of numbers is " + sum);
    }
}
```

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Search Bar:** infobeans
- Explorer:** Shows multiple Java files in the "INFOBEANS" project, including Practice6.java, Practice7.java, Practice8.java, Practice9.java, Practice10.java, Practice11.java, Practice14.java, Practice16.java, and Practice17.java.
- Editor:** The main editor window displays the code for Practice14.java. The code is a Java program that prints the factors of a given integer. It uses a Scanner to read input and a for loop to iterate through numbers from 1 to the input number, printing each factor if it divides the number evenly.
- Output Console:** Shows the terminal output of the program being run. It prompts for an integer, receives the input '10', and then prints the factors 1, 2, 5, and 10.
- Bottom Status Bar:** Shows the current directory (C:\Users\PCLP\Desktop\infobeans), the command prompt (PS), and the file path (C:\Users\PCLP\Desktop\infobeans). It also displays system information like temperature (25°C), battery level (2259), and date/time (01-10-2023).

```
//14.WAP to find out the factors of a number.

// package Assignment_5;

import java.util.Scanner;

public class Practice14 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter an integer: ");
        int num = input.nextInt();
        for (int i = 1; i <= num; i++) {
            if (num % i == 0) {
                System.out.println(i);
            }
        }
    }
}
```

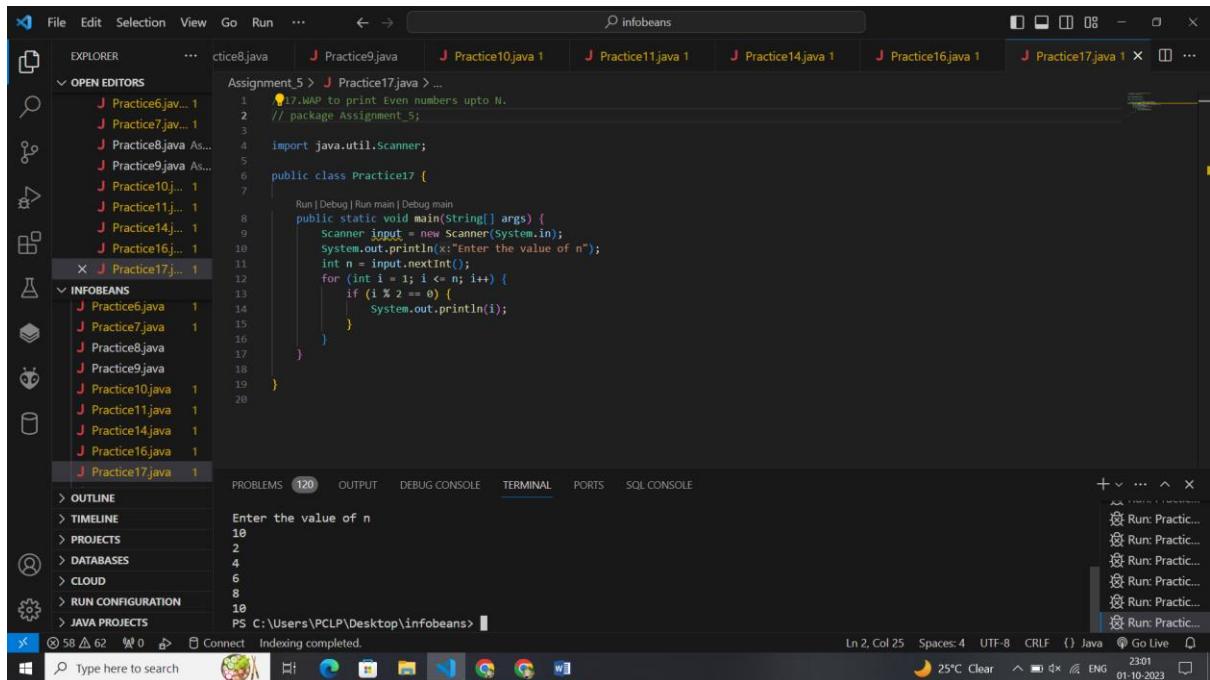
//16.WAP to print N even numbers.

```
// package Assignment_5;

import java.util.Scanner;

public class Practice16 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the value of n");
        int n = input.nextInt();
        for (int i = 0; i < n; i++) {
            if (i % 2 == 0) {
                System.out.println(i);
            }
        }
    }
}
```



```
//17.WAP to print Even numbers upto N.
// package Assignment_5;

import java.util.Scanner;

public class Practice17 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the value of n");
        int n = input.nextInt();
        for (int i = 1; i <= n; i++) {
            if (i % 2 == 0) {
                System.out.println(i);
            }
        }
    }
}
```

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Standard icons for file operations.
- Search Bar:** Type here to search
- Explorer:** Shows a tree view of files and projects. The **INFOBEANS** project is expanded, showing files like Practice17.java, Practice18.java, Practice19.java, etc.
- Editor:** The main code editor displays the following Java code:

```
//18.WAP to print N odd numbers.

// package Assignment_5;

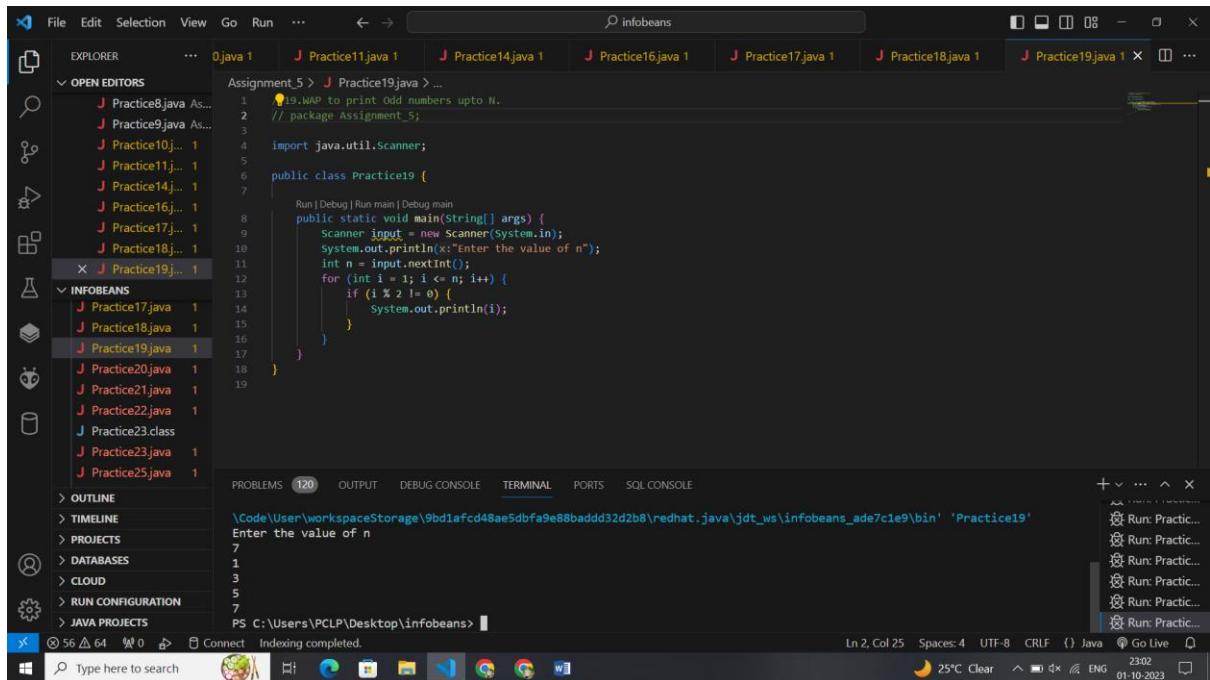
import java.util.Scanner;

public class Practice18 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the value of n");
        int n = input.nextInt();
        for (int i = 0; i < n * 2; i++) {
            if (i % 2 != 0) {
                System.out.println(i);
            }
        }
    }
}
```

The code is a Java program that prompts the user for a value of n and then prints all odd numbers from 1 to n*2. The code editor has syntax highlighting and shows line numbers 7 through 20.

Bottom Status Bar: PS C:\Users\PCLP\Desktop\infobeans>, Ln 2, Col 25, Spaces: 4, UTF-8, CRLF, Java, 25°C Clear, 2302, 01-10-2023



```
//19.WAP to print Odd numbers upto N.
// package Assignment_5;

import java.util.Scanner;

public class Practice19 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the value of n");
        int n = input.nextInt();
        for (int i = 1; i <= n; i++) {
            if (i % 2 != 0) {
                System.out.println(i);
            }
        }
    }
}

//19.WAP to print Odd numbers upto N.
// package Assignment_5;
import java.util.Scanner;
public class Practice19 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the value of n");
        int n = input.nextInt();
        for (int i = 1; i <= n; i++) {
            if (i % 2 != 0) {
                System.out.println(i);
            }}}}
```

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

- File Explorer:** Shows a project structure with several Java files (e.g., Practice17.java, Practice18.java, Practice19.java, Practice20.java, Practice21.java, Practice22.java, Practice23.class, Practice23.java, Practice25.java) and a PDF file (assignment_1.pdf).
- Code Editor:** Displays the content of `J Practice20.java`. The code is a Java program that prints natural numbers in reverse order. It includes imports for `java.util.Scanner`, a package declaration for `Assignment_5`, and a `main` method that reads a number from the user and prints it in descending order.
- Terminal:** A terminal window at the bottom shows the command `//20.WAP to print N natural numbers in reverse order`.
- Bottom Status Bar:** Provides information about the file path (C:\Users\PCLP\Desktop\infobeans\), line (Ln 2, Col 25), and encoding (UTF-8). It also shows the date and time (01-10-2023) and a weather icon indicating 25°C and clear skies.

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

- File Explorer:** Shows a tree view of files and folders. The current file is `J Practice21.java`. Other files visible include `Practice17.java`, `Practice18.java`, `Practice19.java`, `Practice20.java`, `Practice21.java`, `Practice22.java`, `Practice23.class`, `Practice23.java`, `Practice25.java`, and `Tushar.java`.
- Editor:** Displays the Java code for `Practice21`. The code prints uppercase alphabets from A to Z.
- Terminal:** Shows the command line output of the Java program running in the terminal.
- Bottom Status Bar:** Provides information such as the current file path (`C:\Users\PCLP\Desktop\infobeans>`), line number (Ln 2, Col 25), and date/time (01-10-2023).

```
//21.WAP to print alphabets in uppercase

// package Assignment_5;

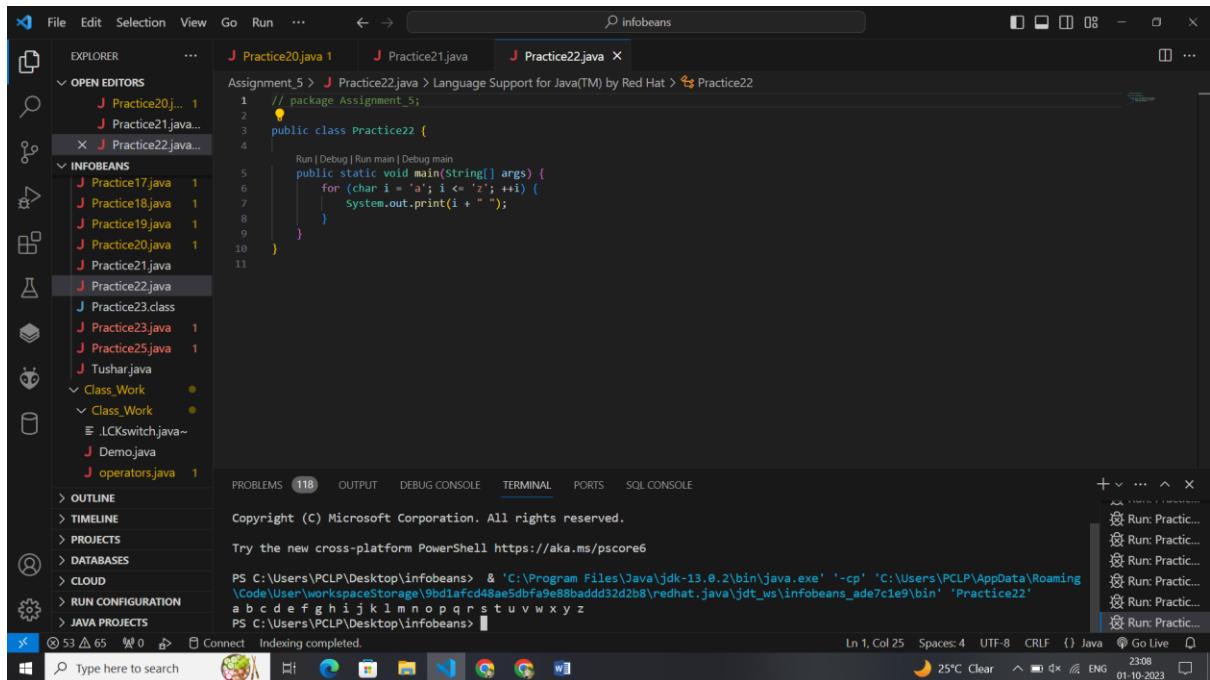
public class Practice21 {

    public static void main(String[] args) {
        for (char i = 'A'; i <= 'Z'; ++i) {
            System.out.print(i + " ");
        }
    }
}
```

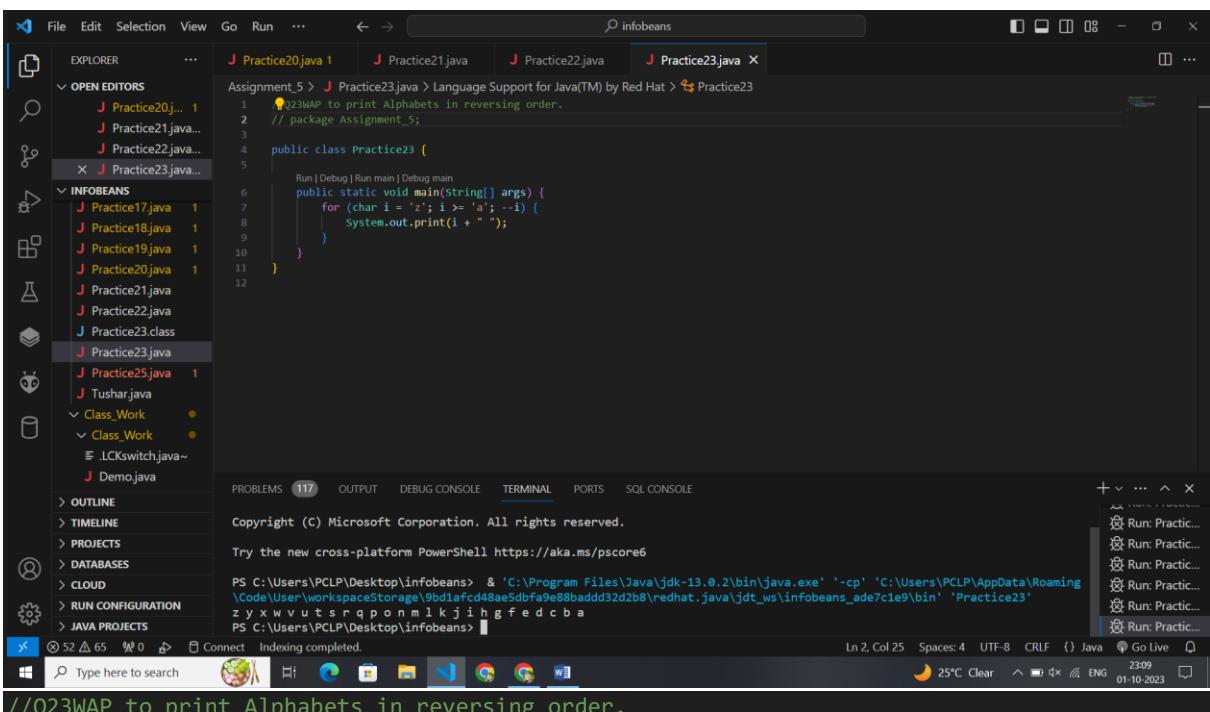
```
// package Assignment_5;

public class Practice22 {

    public static void main(String[] args) {
        for (char i = 'a'; i <= 'z'; ++i) {
            System.out.print(i + " ");
        }
    }
}
```



```
// package Assignment_5;
public class Practice22 {
    public static void main(String[] args) {
        for (char i = 'a'; i <= 'z'; ++i) {
            System.out.print(i + " ");
        }
    }
}
```



```
// Q23WAP to print Alphabets in reversing order.
// package Assignment_5;

public class Practice23 {
    public static void main(String[] args) {
        for (char i = 'z'; i >= 'a'; --i) {
            System.out.print(i + " ");
        }
    }
}
```

//Q23WAP to print Alphabets in reversing order.

```
// package Assignment_5;

public class Practice23 {

    public static void main(String[] args) {
        for (char i = 'z'; i >= 'a'; --i) {
            System.out.print(i + " ");
        }
    }
}
```

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

- IDE:**** The interface is dark-themed, likely from an IDE like Eclipse or IntelliJ IDEA.
- Project Explorer (EXPLORER):** Shows multiple Java files in the `infobeans` project, including `Practice20.java`, `Practice21.java`, `Practice22.java`, `Practice23.java`, and `Practice25.java` (the current file being edited).
- Code Editor:** The main editor window displays the code for `Practice25.java`. The code is a Java program that counts the number of digits in a given integer. It uses a `Scanner` to read input and a loop to calculate the digit count.
- Terminal:** A terminal window at the bottom shows the command-line output of running the program. It prompts for a number (23445), prints the result (Number of digits is :5), and shows the current working directory (PS C:\Users\PCLP\Desktop\infobeans>).
- Status Bar:** The status bar at the bottom right provides information such as the line and column (Ln 2, Col 25), character encoding (UTF-8), and date/time (01-10-2023).

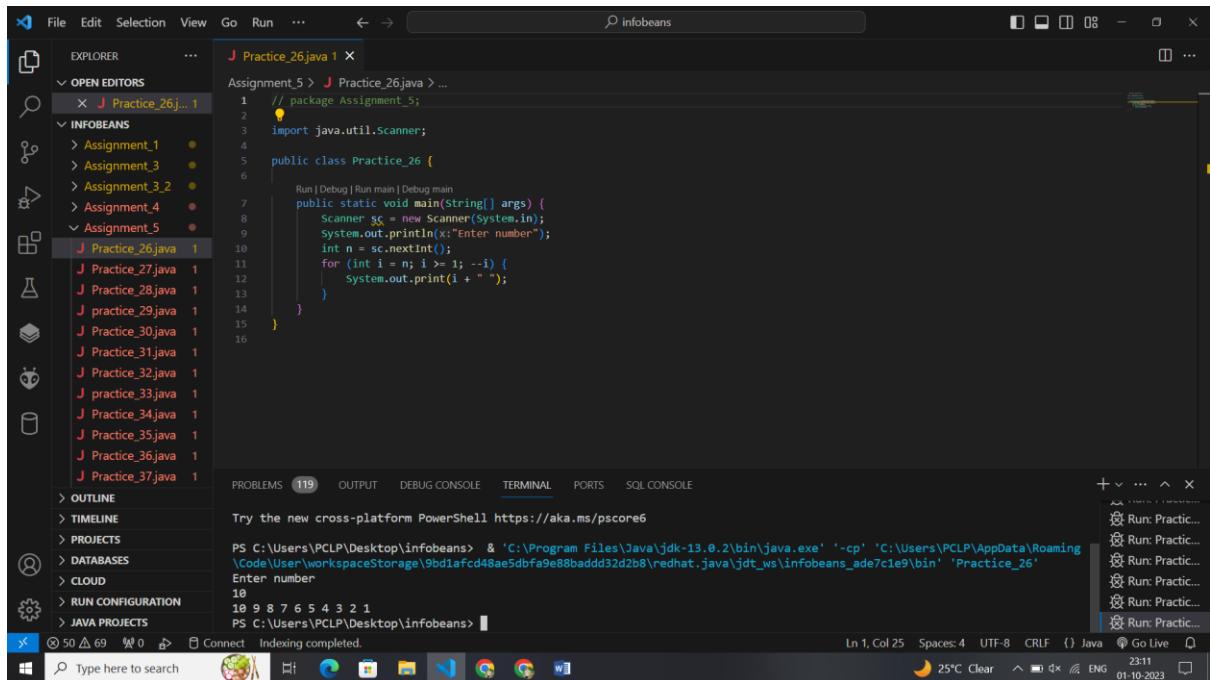
```
//Q25.WAP to count number of digits

// package Assignment_5;

import java.util.Scanner;

public class Practice25 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the number");
        int num = input.nextInt();
        int count = 0;
        int rem;
        while (num > 0) {
            rem = num % 10;
            count++;
            num = num / 10;
        }
        System.out.println("Number of digits is :" + count);
    }
}
```



```
// package Assignment_5;

import java.util.Scanner;

public class Practice_26 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int n = sc.nextInt();
        for (int i = n; i >= 1; --i) {
            System.out.print(i + " ");
        }
    }
}
```

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

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including "Assignment_1", "Assignment_3", "Assignment_3_2", "Assignment_4", "Assignment_5", "J Practice_26.java", "J Practice_27.java" (selected), "J Practice_28.java", "J practice_29.java", "J Practice_30.java", "J Practice_31.java", "J Practice_32.java", "J practice_33.java", "J Practice_34.java", "J Practice_35.java", "J Practice_36.java".
- Code Editor:** Displays the content of "J Practice_27.java". The code is a Java program to check if a number is a palindrome.
- Output Console:** Shows the command-line interface for running the program. It includes the path "PS C:\Users\PCLP\Desktop\infobeans> & 'C:\Program Files\Java\jdk-13.0.2\bin\java.exe' '-cp' 'C:\Users\PCLP\AppData\Roaming\CodeUser\workspaceStorage\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'Practice_27'", the prompt "Enter number", the input "121", and the output "pallindrome".
- Status Bar:** Provides information such as "Ln 11, Col 30", "Spaces: 4", "UTF-8", "CRLF", "Java", "Go Live", "25°C Clear", "23:12", and the date "01-10-2023".

```
// package Assignment_5;

// 27.WAP to check whether entered number is palindrome or not

import java.util.Scanner;

public class Practice_27 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int a = sc.nextInt();
        int temp = a;
        int rem, sum = 0;

        while (a > 0) {
            rem = a % 10;
            sum = (sum * 10 + rem);
            a = a / 10;
        }

        if (temp == sum) {
            System.out.println("pallindrome");
        } else {
            System.out.println("not pallindrome");
        }
    }
}
```

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Back, Forward, Home, Infobean
- Editor Area:** Shows the code for `J Practice_28.java`. The code is a Java program to check if a number is Armstrong.
- Explorer Bar:** Displays a list of Java files in the current workspace, including `Assignment_5`, `INFOBEANS`, and `Assignment_5`.
- Bottom Status Bar:** Shows file statistics (48 files, 71 errors, 0 warnings), connection status (Connected), indexing status (Indexing completed), and system information (Windows 10, 23:13, 25°C, Clear).

```
// package Assignment_5;

import java.util.Scanner;

// 28.WAP to check whether entered number is Armstrong or not
public class Practice_28 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int a = sc.nextInt();
        int temp = a;
        int rem, sum = 0;

        while (temp > 0) {
            rem = temp % 10;
            sum = (sum + rem * rem * rem);
            temp = temp / 10;

        }
        if (a == sum) {
            System.out.println("Armstrong ");
        } else {
            System.out.println("not Armstrong");
        }

    }
}
```

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

- File Structure (EXPLORER):** Shows multiple Java files: Practice_26.java, Practice_27.java, Practice_28.java, J practice_29.java (the current file), Practice_30.java, Practice_31.java, Practice_32.java, Practice_33.java, Practice_34.java.
- Code Editor (J practice_29.java):** Displays Java code to check if a number is strong. The code uses a factorial sum approach. It prints "Enter the number", reads an integer, calculates the sum of factorials of digits, and prints whether the number is strong or not.
- Terminal:** Shows the command line output of running the program with input 123, which prints "0 is not a strong number".
- Output:** Shows the output of the run configuration.
- Bottom Status Bar:** Includes system information like CPU, RAM, battery, and date/time.

```
// package Assignment_5;

import java.util.Scanner;

// 29.WAP to check whether entered number is strong or not
public class practice_29 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);
        System.out.println("Enter the number");
        int num = input.nextInt();
        int fact1, sum = 0, temp;
        temp = num;

        while (temp > 0) {
            fact1 = temp % 10;
            int fact = 1;
            for (int i = 1; i <= fact1; i++) {
                fact = fact * i;

                // System.out.println(fact + " ");
            }
            sum = sum + fact;

            temp = temp / 10;
        }

        if (sum == num) {
            System.out.println(temp + " is a strong number");
        } else {
            System.out.println(temp + " is not a strong number");
        }
    }
}
```

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

- File Bar:** File, Edit, Selection, View, Go, Run, ...
- Title Bar:** infobeans
- Toolbar:** Run | Debug | Run main | Debug main
- Left Sidebar (OPEN EDITORS):** J Practice_26.java 1, J Practice_27.java 1, J Practice_28.java 1, J practice_29.java 1, J Practice_30.java 1.
- Left Sidebar (INFOBEANS):** Assignment_1, Assignment_3, Assignment_3_2, Assignment_4, Assignment_5, J Practice_26.java 1, J Practice_27.java 1, J Practice_28.java 1, J practice_29.java 1, J Practice_30.java 1, J Practice_31.java 1, J Practice_32.java 1, J practice_33.java 1.
- Central Area:** Code editor showing Java code for a program named Practice_30. The code uses a Scanner to read an integer from the user and then counts the number of even and odd digits.
- Bottom Status Bar:** PROBLEMS (119), OUTLINE, TIMELINE, PROJECTS, DATABASES, CLOUD, RUN CONFIGURATION, JAVA PROJECTS.
- Bottom Right Panel:** Run configurations for Practice_30.
- Taskbar:** Shows various application icons and the system clock (23:18, 01-10-2023).

```
// package Assignment_5;

// 30.WAP to count no. Of even and odd digits in a number
import java.util.Scanner;

public class Practice_30 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);
        System.out.println("Enter the value of n");
        int n = input.nextInt();
        int even = 0, odd = 0;
        while (n > 0) {
            int rem = n % 10;
            if (rem % 2 == 0) {
                even++;
            } else {
                odd++;
            }
            n = n / 10;
        }
        System.out.println("even number is " + even);
        System.out.println("odd number is " + odd);
    }
}
```

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Back, Forward, Home, Refresh, Stop, Reload, Save, Open, New, Find, Replace, Copy, Paste, Cut, Select All, Find in Path, Find Next, Find Previous, Find in Files, Find in Projects, Find in Editors, Find in Explorer, Find in Problems, Find in Output, Find in Debug Console, Find in Terminal, Find in Ports, Find in SQL Console.
- Search Bar:** infobeans
- Explorer:** Shows a tree view of files and projects. The 'Assignment_5' project is expanded, showing files like Practice_26.java, Practice_27.java, Practice_28.java, practice_29.java, Practice_30.java, Practice_31.java, and Practice_32.java.
- Editor:** The main code editor window displays the content of Practice_31.java. The code calculates the Least Common Multiple (LCM) of two integers, n1 and n2, by first finding their Greatest Common Divisor (GCD). It uses nested loops to iterate through possible divisors and update the GCD and LCM accordingly.
- Output:** The terminal output shows the execution of the code in a Java environment, resulting in the LCM being printed as 360.
- Bottom Status Bar:** Shows file counts (45), search count (73), indexing status (Indexing completed), system temperature (25°C), clear log button, language (ENG), date (01-10-2023), and time (23:19).

```
// package Assignment_5;

public class Practice_31 {

    public static void main(String[] args) {

        int n1 = 72, n2 = 120, gcd = 1;

        for (int i = 1; i <= n1 && i <= n2; ++i) {
            // Checks if i is factor of both integers
            if (n1 % i == 0 && n2 % i == 0) {
                gcd = i;
            }
        }

        int lcm = (n1 * n2) / gcd;
        System.out.println("the lcm of n1 , n2 : " + lcm);
        // for (int i = 1; i <= n1; ++i) {
        // Checks if i is factor of both integers
        // if (n1 % i == 0) {
        // gcd = i;
        // }
        // }

        // int lcm = (n1 * n2) / gcd;
        // System.out.println("the lcm of n1 , n2 : " + lcm);
    }
}
```

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

- File Bar:** File, Edit, Selection, View, Go, Run, ...
- Search Bar:** infobeans
- Editor Area:** The main editor window displays the Java code for "Assignment_5 > J Practice_32.java".

```
// package Assignment_5;
// 32.WAP to find out HCF of a number
public class Practice_32 {
    public static void main(String[] args) {
        int num1 = 36, num2 = 60, hcf = 0;
        for (int i = 1; i <= num1 || i <= num2; i++) {
            if (num1 % i == 0 && num2 % i == 0) {
                hcf = i;
            }
        }
        System.out.println("The HCF: " + hcf);
    }
}
```
- Explorer:** Shows a tree view of files and folders, including "INFOBEANS" and "J Practice_32.java".
- Problems:** 117 errors.
- Output:** Shows command-line output from a PowerShell session:

```
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\b0b1fcfd48ae5dfa9e88bddd32d2b8\redhat.java\jdt_ws\infobeans_a0e7c1e9\bin' 'Practice_32'
The HCF: 12
PS C:\Users\PCLP\Desktop\infobeans>
```
- Terminal:** Shows the current working directory as "PS C:\Users\PCLP\Desktop\infobeans>".
- Status Bar:** L16, Col 6, Spaces:4, UTF-8, CRLF, Java, 25°C Clear, 01-10-2023, 23:30.

```
// package Assignment_5;

// 33.WAP to find out the sum of all the digits of a number
import java.util.Scanner;

public class practice_33 {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the number");
        int num = input.nextInt();
        int sum = 0;
        for (int i = 0; i <= num; i++) {
            sum = sum + i;
        }
        System.out.println("Sum of numbers is " + sum);
    }
}
```

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

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections.
- Editor:** The main editor pane displays the following Java code:

```
// package Assignment_5;

import java.util.Scanner;

// 34.WAP to find out the sum of first and last digit of a user entered number
public class Practice_34 {

    public static void main(String[] args) {

        int n, fd = 0, ld, sum;
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter a number");
        n = sc.nextInt();
        ld = n % 10;

        while (n > 0) {
            int rem = n % 10;
            fd = rem;
            n = n / 10;
        }
        sum = fd + ld;
        System.out.println(sum);

    }
}
```

- Terminal:** The terminal window shows the command run and its output.
- Status Bar:** Shows indexing completed, file statistics (42 files, 75 lines), and system information (25°C, 23:39, 01-10-2023).

The screenshot shows a Microsoft Visual Studio Code (VS Code) interface. The central area displays a Java file named `J Practice_35.java`. The code is a program that prompts the user for two integers and then prints their multiplication tables up to 10. The code uses `Scanner` to read input and `System.out.print` to output the results.

```
// package Assignment_5;

import java.util.Scanner;

// 35.WAP to print tables of all the numbers between two entered numbers
public class Practice_35 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a first number: ");
        int n1 = sc.nextInt();
        System.out.print("Enter a Second number: ");
        int n2 = sc.nextInt();
        for (int i = n1; i <= n2; i++) {

            for (int j = 1; j <= 10; j++) {
                System.out.print(i * j + " ");
            }
            System.out.println(" ");
        }
    }
}
```

The left sidebar shows the Explorer view with multiple Java files listed under the `INFOBEANS` folder. The right sidebar shows the Problems, Output, Debug Console, Terminal, Ports, and SQL Console tabs. The bottom status bar shows the current file path, line count, and other system information.

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

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections.
- Editor:** The main editor window displays the code for "Practice_36.java".
- Code:** The code is a Java program to find factors of all numbers between two entered integers. It uses Scanner to get input and System.out.println to display results.
- Output:** The terminal tab shows the execution of the program for various inputs (49, 50, 51, 52, 53, 54, 55) and lists their factors.
- Environment:** The interface includes standard Java development tools like Run, Debug, and Terminal, along with system status indicators like battery level and temperature.

```
// package Assignment_5;

// 36.WAP to find out the factors of all the numbers between two entered numbers

import java.util.Scanner;

public class Practice_36 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);
        System.out.print("Enter an integer: ");
        int num1 = input.nextInt();
        int num2 = input.nextInt();

        // for (int i = 1; i <= num2; i++) {
        for (int i = num1; i <= num2; i++) {
            System.out.print("Factors of " + i + ": ");
            for (int j = 1; j <= i; j++) {
                if (i % j == 0) {
                    System.out.print(j + " ");
                }
            }
            System.out.println();
        }
    }
}
```

The screenshot shows a Java development environment with multiple tabs open. The active tab is 'J Practice_37.java' (version 1). The code implements a program to find perfect numbers between two user-specified integers.

```
// package Assignment_5;

import java.util.Scanner;

// 37.WAP to find out all the perfect numbers between two entered numbers
public class Practice_37 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int num1 = sc.nextInt();
        System.out.println("Enter second number");
        int num2 = sc.nextInt();

        for (int i = num1; i <= num2; i++) {
            int sum = 0;
            int temp = i;

            // System.out.print( i+" is ");
            for (int j = 1; j <= i - 1; j++) {
                if (i % j == 0) {
                    // System.out.print(j+" ");
                    sum += j;
                }
            }

            if (sum == temp) {
                System.out.print(i + " is perfect number");
                System.out.println(" ");
            }
        }
    }
}
```

The terminal window shows the execution of the program:

```
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_ae7c1e9\bin' 'Practice_37'
Enter first number
12
Enter second number
55
28 is perfect number
PS C:\Users\PCLP\Desktop\infobeans>
```

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

- File Bar:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Standard icons for file operations.
- Explorer:** Shows a tree view of projects and files. The current file, `J practice_38.java`, is selected.
- Code Editor:** Displays the Java code for finding palindrome numbers. The code uses a Scanner to read two integers from the user and then iterates through all numbers between them, checking if each number is a palindrome by reversing it and comparing it to the original.
- Output:** Shows the terminal output of the code execution. It includes the command run, the prompt `Enter number`, and the resulting list of palindromes.
- Run Configuration:** A dropdown menu with multiple "Run: Practice..." options.
- Bottom Status:** Shows system information like temperature (29°C), weather (Sunny), date (03-10-2023), and time (11:28).

```
// package Assignment_5;

import java.util.Scanner;

// 38.WAP to find out all the palindrome numbers between two entered numbers
public class practice_38 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number ");
        int num = sc.nextInt();
        int num1 = sc.nextInt();

        // int temp = a;
        int rem, n, sum = 0;

        for (int i = num; i <= num1; i++) {
            int a = i;

            while (a > 0) {
                rem = a % 10;
                sum = sum * 10 + rem;
                a = a / 10;
            }

            if (sum == i) {
                System.out.println(i + " _____ ");
            }
        }
    }
}
```

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Standard icons for file operations.
- Editor:** Shows Java code for checking Armstrong numbers. The code uses a scanner to input two numbers and then calculates the sum of their digits raised to the power of the number of digits to determine if it's an Armstrong number.
- Output Console:** Displays terminal output showing the execution of the code and its results for inputs 120 and 130.
- Bottom Status Bar:** Shows the current line (Ln 16, Col 26), spaces (Spaces: 4), encoding (UTF-8), and date/time (03-10-2023, 11:29).

```
import java.util.Scanner;

public class Practice_39 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter fisrt value");
        int num1 = sc.nextInt();
        System.out.println("Enter second number");
        int num2 = sc.nextInt();

        for (int i = num1; i <= num2; i++) {
            int temp = i;
            int temp2 = i;
            int count = 0, sum = 0, rem = 0;

            while (temp2 != 0) {
                rem = temp2 % 10;
                count++;
                temp2 /= 10;
            }
            while (temp != 0) {
                rem = temp % 10;
                sum += Math.pow(rem, count);

                count++;
                temp = temp / 10;
            }
            if (i==sum) {
                System.out.println(i + " Armstrong number");
            }
        }
    }
}
```

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Standard icons for file operations.
- Search Bar:** Type here to search.
- Explorer:** Shows a list of Java files in the workspace, including Practice_44.java, Practice_47.java, Practice_37.java, practice_38.java, Practice_40.java, Practice_39.java, and Practice8.java.
- Open Editors:** Practice_40.java is the active editor, displaying Java code for finding strong numbers between two input numbers.
- InfoBeans:** A list of Java files related to infobeans.
- Problems:** 114 issues found.
- Output:** Shows command-line output of the Java compiler and runtime environment.
- Debug Console:** Available but not currently selected.
- Terminal:** Available but not currently selected.
- Ports:** Available but not currently selected.
- SQL Console:** Available but not currently selected.
- Run Configuration:** Available but not currently selected.
- Java Version:** 11.32
- System Status:** 29°C Sunny, ENG, 03-10-2023.

```
import java.util.Scanner;

public class Practice_40 {
    // 40.WAP to print all the strong numbers between two entered numbers

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter fisrt value");
        int num1 = sc.nextInt();
        System.out.println("Enter second number");
        int num2 = sc.nextInt();

        for (int i = num1; i <= num2; i++) {
            int temp = i;
            int sum = 0;

            // int ans = 1;
            while (temp > 0) {
                int ans = 1;
                int rem = temp % 10;
                temp /= 10;
                for (int j = 1; j <= rem; j++) {
                    ans = ans * j;

                }
                sum = sum + ans;
            }

            if (sum == i) {
                System.out.println(i + " Strong number");
            }

        }
    }
}
```

```
}
```

```
    }
}
```

```
}
```

The screenshot shows a Java development environment with multiple tabs open. The active tab is 'J Practice_41.java'. The code prints all even numbers between two user inputs. The terminal shows the execution of the program and its output.

```
// package Assignment_5;

import java.util.Scanner;

// 41.WAP to print all the even numbers between two entered numbers
public class Practice_41 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int num1 = sc.nextInt();
        System.out.println("Enter second number");
        int num2 = sc.nextInt();

        for (int i = num1; i <= num2; i++) {
            if (i % 2 == 0) {
                System.out.print(i + " ");
            }
        }
    }
}
```

PROBLEMS 127 OUTPUT DEBUG CONSOLE TERMINAL PORTS SQL CONSOLE

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\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'Practice_41'
Enter first number
11
Enter second number
55
12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
PS C:\Users\PCLP\Desktop\infobeans>

Ln 1, Col 25 Spaces: 4 UTF-8 CRLF () Java Go Live 0005 25°C Clear 02-10-2023

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

- File Explorer:** Shows multiple Java files in the project, including `J Practice_41.java`, `J Practice_42.java`, `J Practice_43.java`, `J Practice_44.java`, `J Practice_45.java`, `J Practice_46.java`, `J Practice_48.java`, `J Practice_49.java`, `J Practice_50.java`, `J Practice_51.java`, `J Practice_52.java`, `J Practice_53.java`, `J Practice_54.java`, `J Practice_55.java`, `J Practice_56.java`, and `J practice_57.java`.
- Code Editor:** The `J Practice_42.java` file is open, displaying the following code:

```
// package Assignment_5;
import java.util.Scanner;

public class Practice_42 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int num1 = sc.nextInt();
        System.out.println("Enter second number");
        int num2 = sc.nextInt();

        for (int i = num1; i <= num2; i++) {
            if (i % 2 != 0) {
                System.out.print(i + " ");
            }
        }
    }
}
```

- Terminal:** The terminal window shows the command-line output of the program running. It prompts for two numbers, then prints all odd numbers between them.
- Output:** The output window shows the results of the program execution.
- Bottom Status Bar:** Displays the current date (02-10-2023), time (0008), and weather (25°C Clear).

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Standard icons for file operations.
- Search Bar:** Infobean
- Left Sidebar (EXPLORER):** Shows a tree view of files and projects. The "INFOBEANS" section is expanded, listing various practice files like Practice_41.java through Practice_56.java.
- Central Editor:** The code for Practice_43.java is displayed. The code prints the factorial of all numbers between two user-entered numbers.
- Output Console:** Shows the command used to run the program and the resulting output. The output shows the factorials of numbers from 1 to 9.
- Bottom Status Bar:** Includes information like line count (127), column count (26), spaces (4), encoding (UTF-8), and date/time (02-10-2023).

```
// package Assignment_5;

import java.util.Scanner;

// 43.WAP to print factorial of all the numbers between two entered numbers
public class Practice_43 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int num1 = sc.nextInt();
        System.out.println("Enter second number");
        int num2 = sc.nextInt();
        int fact = 1;
        for (int i = num1; i <= num2; i++) {
            fact = fact * i;
            System.out.print(fact + " ");
        }
    }
}
```

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

- File Menu:** File, Edit, Selection, View, Go, Run, ...
- Toolbar:** Back, Forward, Home, Infobeans
- Editor:** The main editor window displays the code for `Practice_44.java`. The code is a Java program that prints prime numbers between two user-specified integers. It uses a scanner to read input and a loop to check each number for primality.
- Explorer:** Shows a list of Java files in the project, including `Practice_44.java`, `Practice_47.java`, `Practice_37.java`, `practice_38.java`, `Practice_40.java`, `Practice_39.java`, and `Practice8.java`.
- Problems:** Shows 114 issues.
- Output:** Displays the command-line interface for running the program.
- Debug Console:** Shows the current state of the debugger.
- Terminal:** Shows the terminal output.
- Ports:** Shows port information.
- SQL Console:** Shows SQL console information.
- Run Configuration:** Shows multiple run configurations for the project.
- Java Projects:** Shows the Java projects in the workspace.
- Bottom Bar:** Includes a search bar, system icons, and status information like weather (29°C Sunny), date (03-10-2023), and time (11:33).

```
// package Assignment_5;

import java.util.Scanner;

// 44.WAP to print all the prime numbers between two entered numbers
public class Practice_44 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int num1 = sc.nextInt();
        System.out.println("Enter second number");
        int num2 = sc.nextInt();
        for (int i = num1; i <= num2; i++) {

            int flag = 1;
            for (int j = 2; j <= i / 2; j++) {
                if (i % j == 0) {
                    flag = 0;
                    break;
                }
                if (flag == 1) {
                    System.out.println(i);
                }
            }
        }
    }
}
```

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

- File Explorer (Left):** Shows open files under "OPEN EDITORS" and "INFOBEANS". The "INFOBEANS" section lists multiple Java files: Practice_41.java, Practice_42.java, Practice_43.java, Practice_44.java, and Practice_45.java.
- Code Editor (Top Right):** Displays the content of Practice_45.java. The code calculates the sum of integers from 100 to 200 that are divisible by 9.

```
// package Assignment_5;
public class Practice_45 {
    public static void main(String[] args) {
        int sum = 0;
        for (int i = 100; i <= 200; i++) {
            if (i % 9 == 0) {
                sum = sum + i;
            }
        }
        System.out.println(sum);
    }
}
```
- Terminal (Bottom Left):** Shows the command-line output of running the Java code.

```
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\b9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Practice_45'
1683
PS C:\Users\PCLP\Desktop\infobeans>
```
- Bottom Status Bar:** Provides information about the current file (Ln 1, Col 25), code style (Spaces: 4, UTF-8, CRLF), language (Java), and date/time (02-10-2023).

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

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including Practice_41.java, Practice_42.java, Practice_43.java, Practice_44.java, Practice_45.java, Practice_46.java, Practice_48.java, Practice_49.java, Practice_50.java, Practice_51.java, Practice_52.java, and Practice_53.java.
- Editor:** The "J Practice_46.java" tab is active, displaying the following Java code:

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_46 {

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

        // square
        int square = n * n;
        int cube = n * n * n;
        double squareroot = Math.sqrt(n);

        System.out.println("Square root : " + square);
        System.out.println("cube is : " + cube);
        System.out.println("Square Root is : " + squareroot);
    }
}
```

- Terminal:** The terminal window shows the execution of the code and its output:

```
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_ae7cle9\bin' 'Practice_46'
Enter a number
9
Square root : 81
cube is : 729
Square Root is : 3.0
PS C:\Users\PCLP\Desktop\infobeans>
```

- Bottom Status Bar:** Shows the current file (ln 1, col 25), encoding (UTF-8), and date (02-10-2023).

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

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections.
- Code Editor:** Displays the content of the file "Practice_47.java".
- Bottom Status Bar:** Shows the path "PS C:\Users\PCPL\Desktop\infobeans> |", line count (114), and other system information like date and weather.

```
import java.util.Scanner;

public class Practice_47 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first year");
        int year1 = sc.nextInt();
        System.out.println("Enter second number");
        int year2 = sc.nextInt();
        for (int i = year1; i <= year2; i++) {
            if (i % 4 == 0) {
                if (i % 100 == 0) {
                    if (i % 400 == 0) {
                        System.out.println(i);
                    }
                } else {
                    System.out.println(i);
                }
            }
        }
    }
}
```

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

- EXPLORER:** Shows several Java files under "INFOBEANS": Practice_41.java, Practice_42.java, Practice_43.java, Practice_44.java, Practice_45.java, Practice_46.java, and Practice_48.java.
- OPEN EDITORS:** The file "J Practice_48.java" is currently open in the editor.
- CODE:** The code for Practice_48.java is displayed, which prints integers from -6 to 3 to the console.
- TERMINAL:** The terminal shows the command being run and the resulting output:

```
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\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'Practice_48'
Enter number
8
-6 -3 0 3 6
```
- STATUS BAR:** Shows the current line (Ln 1, Col 25), spaces (Spaces: 4), encoding (UTF-8), and date/time (02-10-2023).

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

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections, including Practice_41 through Practice_49.
- Code Editor:** The main editor displays the code for Practice_49.java. The code uses a Scanner to read an integer from the user and prints the sum of the first n natural numbers.
- Terminal:** The terminal window shows the command-line interface for running the program. It includes the path "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\b9d1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin'" 'Practice_49'. The user then enters "9" and the terminal outputs "1 2 4 7 11 16 22 29 37".
- Status Bar:** Shows the current line (Ln 1, Col 25), spaces (Spaces: 4), encoding (UTF-8), and file type (Java). It also displays the date and time (02-10-2023) and weather information (25°C Clear).

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_49 {

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

        // series =1+(n*(n+1))/2
        for (int i = 0; i < n; i++) {
            int series = 1 + ((i * (i + 1)) / 2);
            System.out.print(series + " ");
        }
    }
}
```

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 active file is "J Practice_50.java". The code prints powers of 2 up to a given number.
- Terminal:** The terminal window shows the execution of the program. It prompts for a number, receives "9", and then prints the sequence: 2 4 8 16 32 64 128 256 512 1024.
- Status Bar:** Shows the current date (02-10-2023), time (00:14), and weather (25°C Clear).

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_50 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int num = sc.nextInt();
        int ele = 1;
        for (int i = 0; i <= num; i++) {
            ele = ele * 2;
            System.out.print(ele + " ");
        }
    }
}
```

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_51 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        double num = sc.nextInt();
        double i, sum = 0;
        for (i = 1; i <= num; i++) {
            sum = sum + 1 / i;
        }
        System.out.print(sum + " ");
    }
}
```

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

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including J_Practice_41.java through J_Practice_56.java, and J_Practice_51.java.
- Active Editor:** J_Practice_52.java
- Code Content:**

```
// package Assignment_5;
import java.util.Scanner;

public class Practice_52 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int num = sc.nextInt();
        int n = 0, result;
        System.out.println(n);
        for (int i = 1; i <= num; i++) {
            result = 7 * i;
            System.out.println(result + " " + " ");
        }
    }
}
```
- Bottom Status Bar:** Shows the current directory as PS C:\Users\PCLP\Desktop\infobeans>, line 1, column 25, and other system information like temperature and date.

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

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including Practice_41.java, Practice_42.java, Practice_43.java, Practice_44.java, Practice_45.java, Practice_46.java, Practice_48.java, Practice_49.java, Practice_50.java, Practice_51.java, Practice_52.java, Practice_53.java (the current file), Practice_54.java, Practice_55.java, and Practice_56.java.
- Editor:** The code for Practice_53.java is displayed. The code reads an integer from the user and prints the sum of all integers from 1 to the input number.
- Terminal:** The terminal window shows the command being run and the resulting output. The command is "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\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Practice_53'". The output is "Enter number" followed by a series of numbers: 9, 1 4 9 16 25 36 49 64 81.
- Status Bar:** Shows the current line (Ln 1, Col 25), spaces (Spaces: 4), encoding (UTF-8), and date/time (02-10-2023).

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_53 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int result = 0;
        int num = sc.nextInt();
        for (int i = 1; i <= num; i++) {
            result = i * i;
            System.out.print(result + " ");
        }
    }
}
```

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

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including Practice_53.java, Practice_54.java, Practice_55.java, practice_56.java, practice_57.java, Practice_58.java, Practice_59.java, practice_60.java, Practice_61.java, Practice_62.java, Practice_63.java, Practice_64.java, Practice1.java, and Practice2.java.
- Code Editor:** The main editor window displays the code for **Practice_54.java**. The code uses a Scanner to read a number from the user and prints the squares of all numbers from 1 to that number. The code is as follows:

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_54 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int result = 0;
        int num = sc.nextInt();
        for (int i = 1; i <= num; i++) {
            result = i * i * i;
            System.out.print(result + " ");
        }
    }
}
```

- 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\b9d1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_a_de7c1e9\bin' 'Practice_54'. It then prompts for input: Enter number. The user enters 9, and the terminal outputs the squares of 1 through 9: 1 8 27 64 125 216 343 512 729.
- Status Bar:** The status bar at the bottom right shows the date (02-10-2023), time (00:16), and weather (25°C Clear).

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

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including "J Practice_51.java", "J Practice_52.java", "J Practice_53.java", "J Practice_54.java", "J Practice_55.java", "J Practice_56.java", "J practice_57.java", "J Practice_58.java", "J Practice_59.java", "J practice_60.java", "J Practice_61.java", "J Practice_62.java", "J Practice_63.java", "J Practice_64.java", and "J Practice1.java".
- Code Editor:** The "J Practice_55.java" file is open, displaying the following code:

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_55 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int result = 0;
        int num = sc.nextInt();
        for (int i = 1; i <= num; i = i + 2) {
            result = i * i;
            System.out.print(result + " ");
        }
    }
}
```
- Terminal:** The terminal window shows the command line and output of the program.

```
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\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Practice_55'
Enter number
9
1 9 25 49 81
PS C:\Users\PCLP\Desktop\infobeans>
```
- Bottom Status Bar:** Shows the current line (Ln 1, Col 25), spaces (Spaces: 4), encoding (UTF-8), and date/time (02-10-2023).

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

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections. The file "J Practice_56.java" is currently selected.
- Code Editor:** Displays the code for "Practice_56.java". The code reads an integer from standard input, initializes a result variable to 0, and then iterates through even numbers up to the input value, multiplying them by the result and printing the intermediate values.
- Terminal:** A terminal window at the bottom shows the command-line output of running the program. It prompts for an input number (9), then prints the sequence of results: 0, 4, 16, 36, and 64.
- Status Bar:** Shows the current line (Ln 3, Col 26), character count (Spaces: 4), encoding (UTF-8), and date/time (02-10-2023).

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

- File Explorer:** Shows multiple Java files in the "INFOBEANS" folder, including "J Practice_51.java", "J Practice_52.java", "J Practice_53.java", "J Practice_54.java", "J Practice_55.java", "J Practice_56.java", "J practice_57.java", "J Practice_58.java", "J Practice_59.java", "J practice_60.java", "J Practice_61.java", "J Practice_62.java", and "J Practice_63.java".
- Editor:** The "OPEN EDITORS" tab is active, displaying the content of "J practice_57.java". The code is as follows:

```
// package Assignment_5;
import java.util.Scanner;

public class practice_57 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int result = 0;
        int num = sc.nextInt();
        for (int i = 1; i <= num; i = i + 2) {
            result = i * i * i;
            System.out.print(result + " ");
        }
    }
}
```

- Terminal:** The 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' '-cp' 'C:\Users\PCLP\AppData\Roaming\Code\User\workspaceStorage\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'practice_57'
Enter number
9
1 27 125 343 729
PS C:\Users\PCLP\Desktop\infobeans>
```

- Bottom Status Bar:** Shows file statistics (36△ 98 ⇧ 0), indexing status ("Indexing completed."), weather (25°C Clear), and date/time (02-10-2023).

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

- Explorer View:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections. The file "J Practice_58.java 2" is currently selected.
- Code Editor:** Displays the content of "J Practice_58.java". The code reads a number from the user, calculates its square, and prints the result.
- Terminal:** Shows the command-line output of running the program. It prompts for a number, receives input, and prints the result.
- Bottom Status Bar:** Includes a search bar, system icons, and a date/time stamp (02-10-2023).

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_58 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        double num = sc.nextInt();
        double result = 0, i;
        for (i = 0; i <= num; i = i + 2) {
            result = i * Math.pow(i, 2);
            System.out.print(result + " ");
        }
    }
}
```

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

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections.
- Code Editor:** Displays the content of `J Practice_59.java`. The code prints numbers from 1 to num, where even numbers are preceded by '#' and odd numbers by '*'.
- 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/0bd1afcd48ae5dbfa9e8bddd32d2b8/redhat.java/jdt-ws/infobeans_a0e7c1e9/bin' 'Practice_59'. It also shows the user input "Enter number" followed by "9".
- Status Bar:** Shows the current file is `J Practice_59.java`, line 1, column 25, spaces: 4, UTF-8, CRLF, Java, 0018, 25°C Clear, 02-10-2023.

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_59 {

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

        int num = sc.nextInt();
        for (int i = 1; i <= num; i++) {
            if (i % 2 == 0) {
                System.out.print("# ");
            } else {
                System.out.print("* ");
            }
        }
    }
}
```

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

- File Explorer:** Shows multiple Java files in the "INFOBEANS" project, including "J Practice_52.java", "J Practice_53.java", "J Practice_54.java", "J Practice_55.java", "J Practice_56.java", "J practice_57.java", "J Practice_58.java", "J Practice_59.java", "J practice_60.java", and "J Practice_61.java".
- Code Editor:** The current file is "J practice_60.java". The code prints numbers from 1 to 9, printing "Hello" for numbers divisible by 5.
- Terminal:** The terminal window shows the command run and the output:

```
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\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ae7c1e9\bin' 'practice_60'
Enter number
9
1 2 3 4 Hello 6 7 8 9
PS C:\Users\PCLP\Desktop\infobeans>
```
- Status Bar:** Shows indexing completed, 33 changes, 104 errors, 0 warnings, and a search bar.
- Bottom Right:** Weather info (24°C), date (02-10-2023), and time (00:19).

```
// package Assignment_5;

import java.util.Scanner;

public class practice_60 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int result = 0;

        int num = sc.nextInt();
        for (int i = 1; i <= num; i++) {
            if (i % 5 == 0) {
                System.out.print(" Hello ");
            } else {
                System.out.print(" " + i + " ");
            }
        }
    }
}
```

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

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections. The "INFOBEANS" section contains files like Practice_61.java, Practice_62.java, Practice_63.java, Practice_64.java, Practice1.java, Practice2.java, Practice3.java, and Practice4.java.
- Code Editor:** The main editor window displays the content of Practice_61.java. The code is as follows:

```
// package Assignment_5;
import java.util.Scanner;

public class Practice_61 {
    public static void main(String[] args) {
        // 1 11 111 1111 11111 .....
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int result = 0;

        int num = sc.nextInt();

        for (int i = 1; i <= num; i++) {
            result = result * 10 + i;
            System.out.print(result + " ");
        }
    }
}
```

- Terminal:** A terminal window at the bottom shows the execution of the Java program. It prompts for an input number (9) and then prints the sequence of numbers from 1 to 99999.
- Output:** The terminal output shows the sequence: 1 11 111 1111 11111 111111 1111111 11111111.
- Environment:** The interface includes standard Windows-style icons for file operations, a search bar, and a status bar indicating the date (02-10-2023), time (00:19), and weather (24°C Clear).

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

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" and "INFOBEANS" sections. The "INFOBEANS" section contains files like "J Practice_61.java", "J Practice_62.java", "J Practice_63.java", "J Practice_64.java", "J Practice1.java", "J Practice2.java", "J Practice3.java", and "J Practice4.java".
- Code Editor:** The main editor window displays the code for "J Practice_62.java". The code is as follows:

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_62 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int result = 0;

        int num = sc.nextInt();

        for (int i = 1; i <= num; i++) {
            result = result * 10 + 1;
            System.out.print(result + "+");
        }
    }
}
```

- Terminal:** A terminal window at the bottom shows the execution of the code. It prompts for input ("Enter number") and then prints the result of the loop.
- Bottom Status Bar:** Displays file statistics (31 files, 106 changes, 0 errors), indexing status ("Indexing completed"), and system information (INR/USD exchange rate, date/time).

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

- File Explorer:** Shows multiple Java files in the `Assignment_5` package, including `Practice_58.java`, `Practice_59.java`, `practice_60.java`, `Practice_61.java`, `Practice_62.java`, and `J Practice_63.java` (the current file).
- Editor:** The code for `J Practice_63.java` is displayed. It reads an integer from standard input, initializes a result variable to 0, and then iterates from 1 to the input value, multiplying the result by 10 and adding 9 each time.
- Terminal:** The terminal window shows the command run in PowerShell: `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\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Practice_63'`. The user then enters the number 9, and the program outputs: `9 99 999 9999 99999 999999 9999999 99999999`.
- Status Bar:** Shows indexing completed, language set to Java, and a currency converter for INR/USD at +0.17%.

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_63 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int result = 0;

        int num = sc.nextInt();

        for (int i = 1; i <= num; i++) {
            result = result * 10 + 9;
            System.out.print(result + " ");
        }
    }
}
```

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

- File Explorer:** Shows multiple Java files in the "OPEN EDITORS" section, including "J Practice_59.java", "J practice_60.java", "J Practice_61.java", "J Practice_62.java", "J Practice_63.java", "J Practice_64.java", "J Practice_56.java", "J practice_57.java", "J Practice_58.java", "J Practice_59.java", "J practice_60.java", "J Practice_61.java", "J Practice_62.java", "J Practice_63.java", and "J Practice_64.java".
- Terminal:** Displays the command-line interface with the following session:

```
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\9bd1afcd48ae5dbfa9e88baddd32d2b8\redhat.java\jdt_ws\infobeans_ade7c1e9\bin' 'Practice_64'
Enter number
25
A b C d E f G h I j K l M n O p Q r S t U v W x Y
PS C:\Users\PCLP\Desktop\infobeans>
```
- Status Bar:** Shows "Ln 1, Col 25 Spaces:4 UTF-8 CRLF {} Java Go Live" and "INR/USD +0.17% 0021 02-10-2023".

```
// package Assignment_5;

import java.util.Scanner;

public class Practice_64 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number");
        int result = 0;
        int num = sc.nextInt();
        char ch = 'A';
        char ch2 = 'a';
        for (int ch1 = 1; ch1 <= num; ch1++) {
            if (ch1 % 2 == 0) {
                System.out.print(ch2 + " ");
            } else {
                System.out.print(ch + " ");
            }
            ch2++;
            ch++;
        }
    }
}
```