

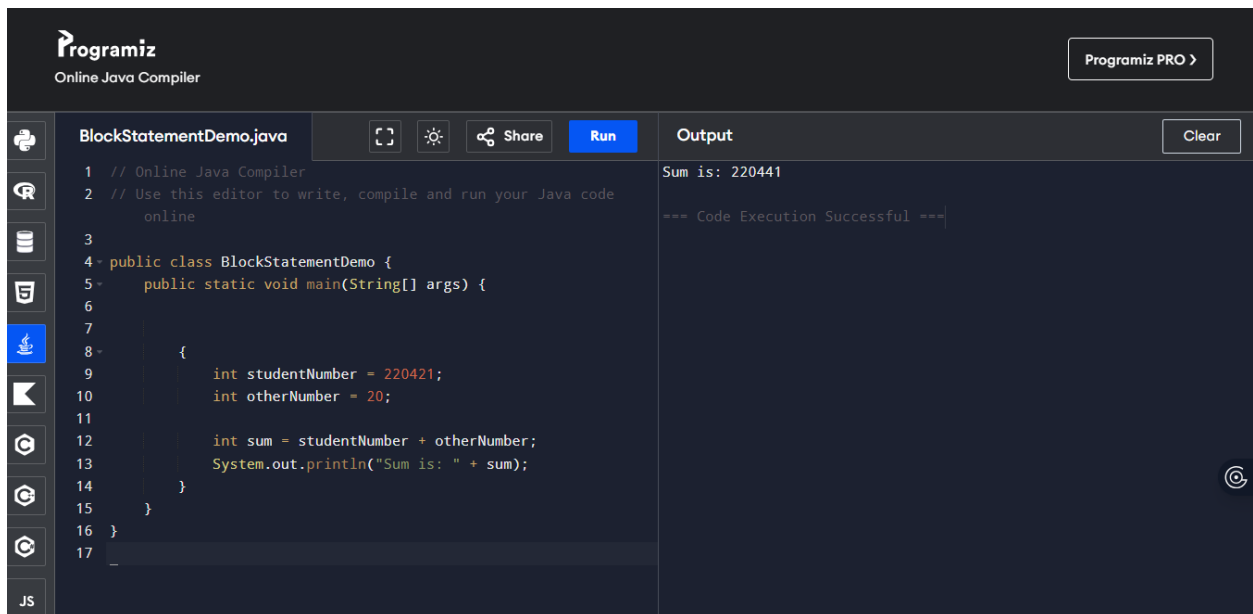
Mitchelle Mutuku
Adm No: 220421

1. BLOCK STATEMENT

Source Code

```
public class BlockStatementDemo {  
    public static void main(String[] args) {  
  
        {  
            int studentNumber = 220421;  
            int otherNumber = 20;  
  
            int sum = studentNumber + otherNumber;  
            System.out.println("Sum is: " + sum);  
        }  
    }  
}
```

Output Screenshot



2. IF STATEMENT

Source Code

```
import java.util.Scanner;

public class HeightChecker {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.print("Enter your height in feet (e.g. 5.8): ");

        double height = input.nextDouble();

        if (height >= 6.0) {

            System.out.println("Tall");

        } else if (height >= 5.7 && height < 6.0) {

            System.out.println("Average");

        } else {

            System.out.println("Short");

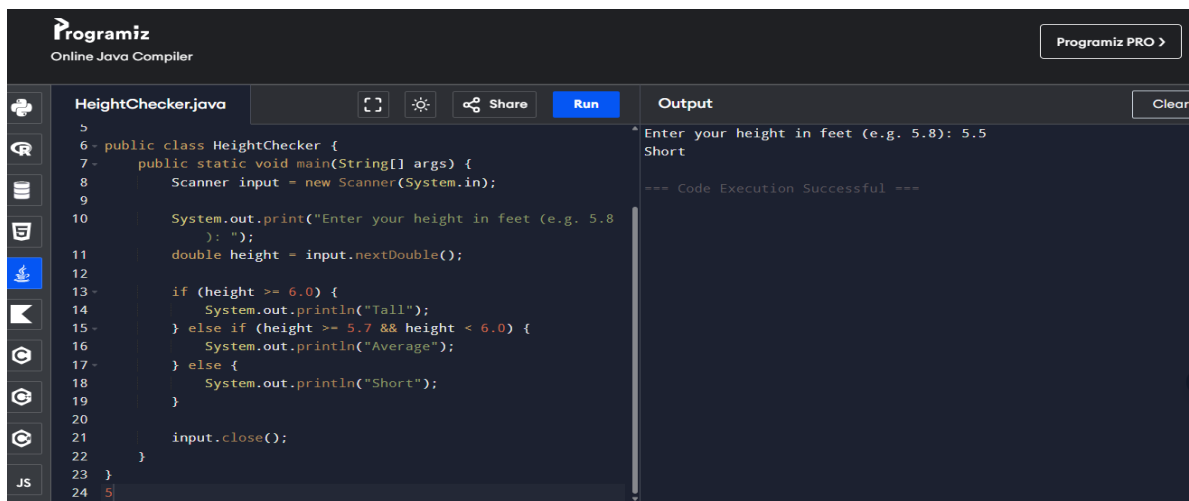
        }

        input.close();

    }

}
```

Output Screenshot



The screenshot shows the Programiz Online Java Compiler interface. The code editor on the left contains the following Java code:

```
HeightChecker.java
6- public class HeightChecker {
7-     public static void main(String[] args) {
8-         Scanner input = new Scanner(System.in);
9-
10-         System.out.print("Enter your height in feet (e.g. 5.8
11-         ): ");
12-         double height = input.nextDouble();
13-
14-         if (height >= 6.0) {
15-             System.out.println("Tall");
16-         } else if (height >= 5.7 && height < 6.0) {
17-             System.out.println("Average");
18-         } else {
19-             System.out.println("Short");
20-         }
21-         input.close();
22-     }
23- }
24- }
```

The output window on the right shows the following text:

```
Enter your height in feet (e.g. 5.8): 5.5
Short
--- Code Execution Successful ---
```

3. SWITCH STATEMENT

Source Code

```
import java.util.Scanner;

public class DayOfWeek {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.print("Enter a number (1-7): ");
        int day = input.nextInt();

        switch (day) {

            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 6:

            System.out.println("Saturday");

            break;

        case 7:

            System.out.println("Sunday");

            break;

        default:

            System.out.println("Invalid input");

    }

    input.close();

}

}

```

Output Screenshot

The screenshot displays the Programiz Online Java Compiler interface. The file being edited is `DayOfWeek.java`. The code contains a switch statement that maps numbers 1 through 7 to the days of the week: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and Sunday. For any other input, it prints "Invalid input". The program also closes the input stream.

The output window shows the following execution results:

```

Enter a number (1?7): 3
Wednesday

=== Code Execution Successful ===

```

4. WHILE LOOP

Source Code

```
import java.util.Scanner;

public class WhileLoopDemo {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.print("Enter a number: ");

        int number = input.nextInt();

        int counter = 1;

        while (counter <= number) {

            System.out.println(counter);

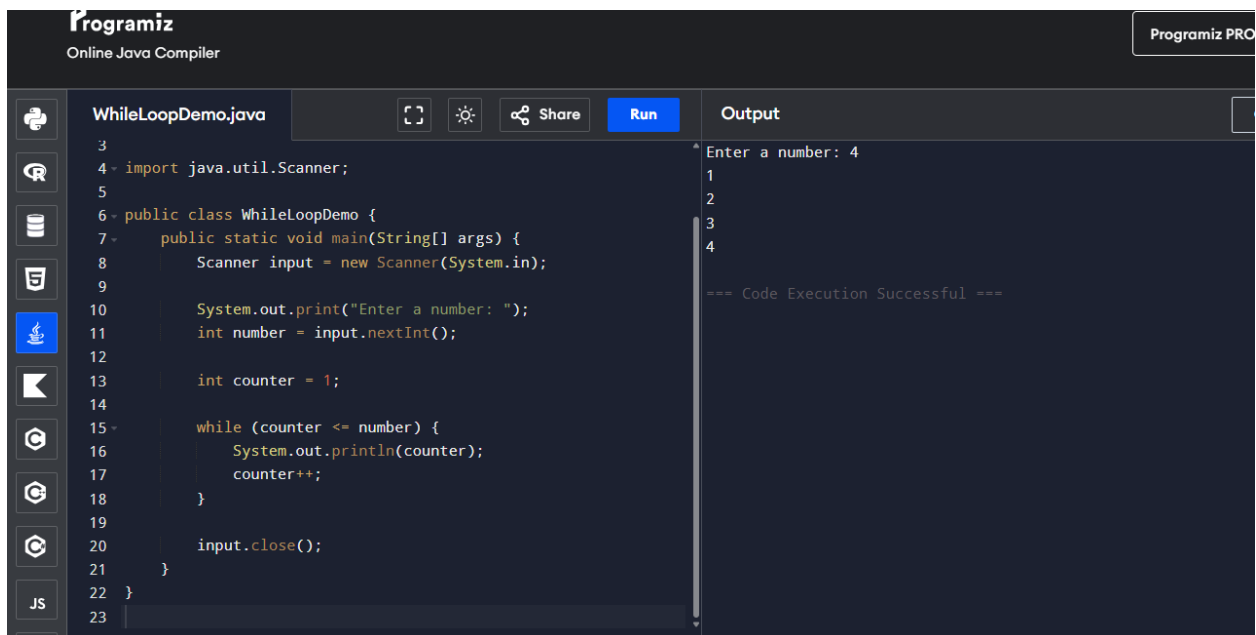
            counter++;

        }

        input.close();

    }
}
```

Output Screenshot



The screenshot displays the Programiz Online Java Compiler interface. The editor on the left contains the Java code for a while loop that prints numbers from 1 to 4. The 'Run' button is highlighted in blue. The output panel on the right shows the program's execution, displaying the numbers 1, 2, 3, and 4 on separate lines, followed by a success message: '=== Code Execution Successful ==='.

```
Programiz
Online Java Compiler
Programiz PRO
```

```
WhileLoopDemo.java
3
4 import java.util.Scanner;
5
6 public class WhileLoopDemo {
7     public static void main(String[] args) {
8         Scanner input = new Scanner(System.in);
9
10        System.out.print("Enter a number: ");
11        int number = input.nextInt();
12
13        int counter = 1;
14
15        while (counter <= number) {
16            System.out.println(counter);
17            counter++;
18        }
19
20        input.close();
21    }
22 }
23
```

```
Output
Enter a number: 4
1
2
3
4
=== Code Execution Successful ===
```

5. DO...WHILE LOOP

Source Code

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

```
public class LoginSystem {
```

```
    public static void main(String[] args) {
```

```
        Scanner input = new Scanner(System.in);
```

```
        int correctStudentNumber = 220421
```

```
        String correctPassword = "java123";
```

```
        int studentNumber;
```

```
        String password;
```

```
        do {
```

```
            System.out.print("Enter student number: ");
```

```
            studentNumber = input.nextInt();
```

```
            System.out.print("Enter password: ");
```

```
            password = input.next();
```

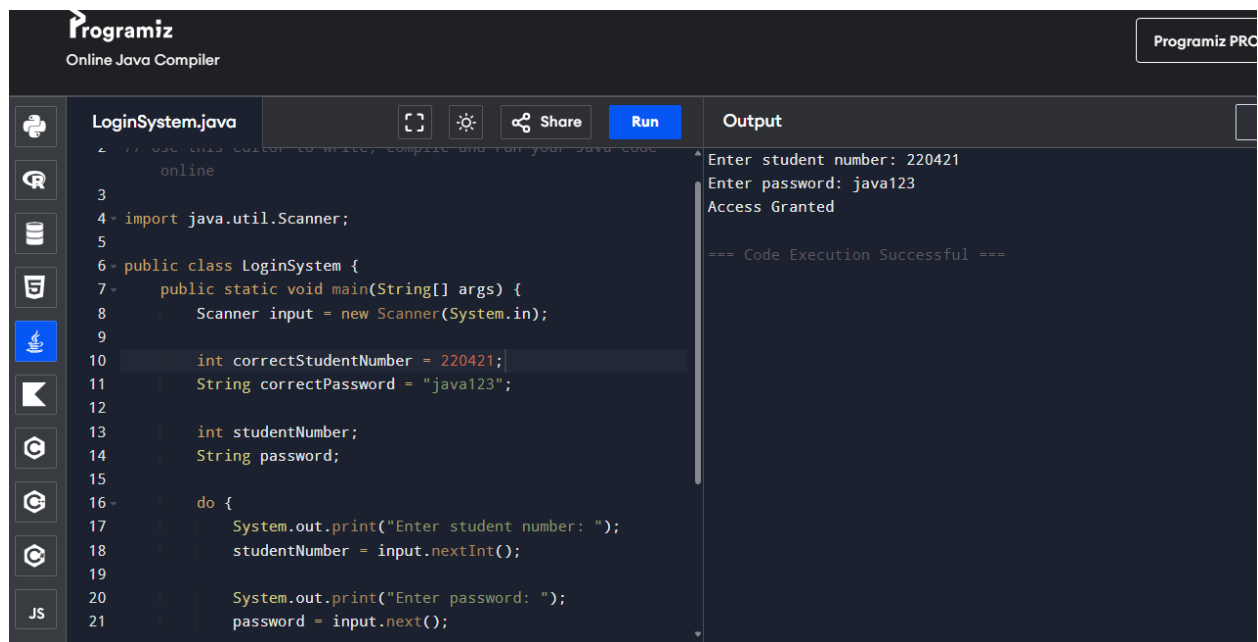
```
        } while (studentNumber != correctStudentNumber || !password.equals(correctPassword));
```

```
        System.out.println("Access Granted");
```

```
        input.close();
```

```
    }}
```

Output Screenshot



6. FOR LOOP

Source Code

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

```
public class ForLoopPattern {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.print("Enter a number: ");

        int number = input.nextInt();

        for (int i = number; i >= 0; i--) {

            for (int j = i; j >= 0; j--) {

                System.out.print(j);

            }

            System.out.println();

        }

    }

}
```

```

    }

    input.close();
}
}

```

Output Screenshot

The screenshot shows an online Java compiler interface. The code editor on the left contains a Java program named `ForLoopPattern.java`. The program prompts the user to enter a number (15) and then prints a pyramid of numbers. The output on the right shows the resulting pattern of numbers.

```

1 // Online Java Compiler
2 // Use this editor to write, compile and run your Java code
  online
3
4 import java.util.Scanner;
5
6 public class ForLoopPattern {
7     public static void main(String[] args) {
8         Scanner input = new Scanner(System.in);
9
10        System.out.print("Enter a number: ");
11        int number = input.nextInt();
12
13        for (int i = number; i >= 0; i--) {
14            for (int j = i; j >= 0; j--) {
15                System.out.print(j);
16            }
17            System.out.println();
18        }
19
20        input.close();

```

Output:

```

Enter a number: 15
1514131211109876543210
14131211109876543210
131211109876543210
1211109876543210
11109876543210
109876543210
9876543210
876543210
76543210
6543210
543210
43210
3210
210
10
0
=== Code Execution Successful ===

```