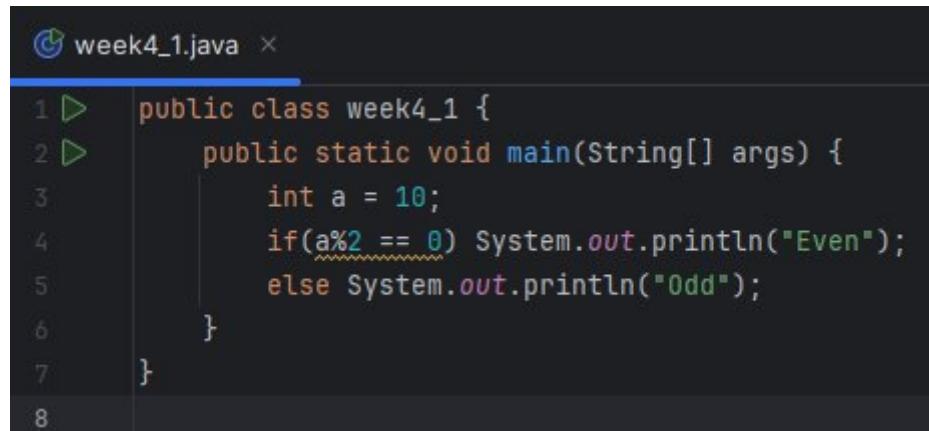# WEEK 4

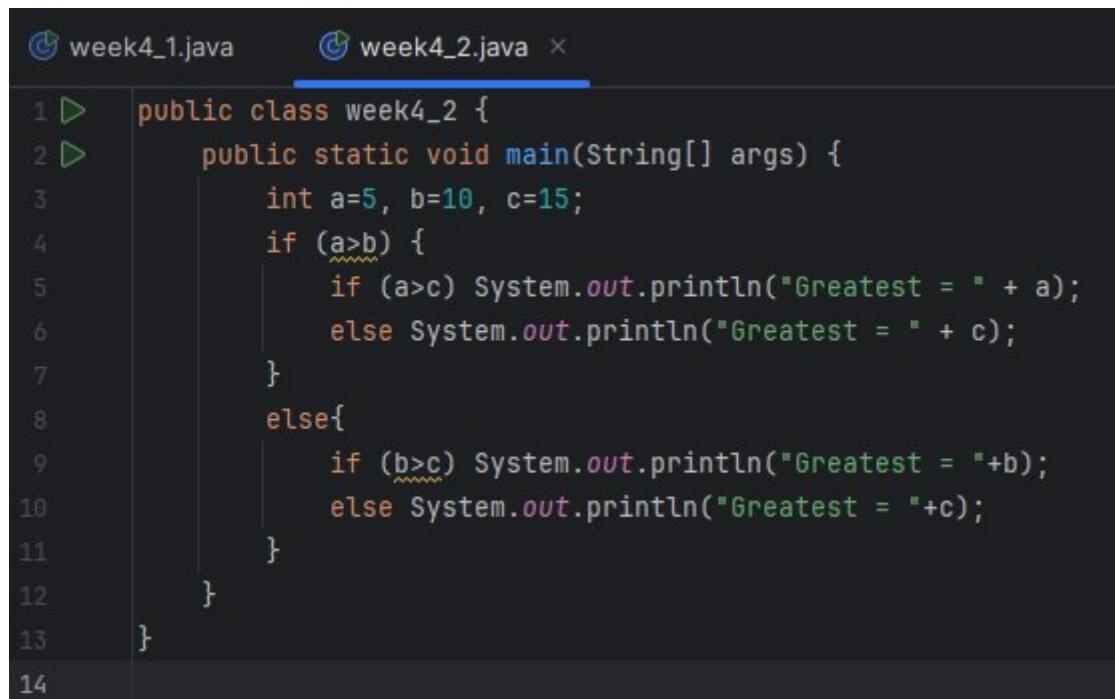**1.** Write a java program to check whether the given number is odd or even.

```java
public class week4_1 {
    public static void main(String[] args) {
        int a = 10;
        if(a%2 == 0) System.out.println("Even");
        else System.out.println("Odd");
    }
}
```

```
Even

Process finished with exit code 0
```

2. Write a java program to find the largest number among the three numbers.

```java
public class week4_2 {
    public static void main(String[] args) {
        int a=5, b=10, c=15;
        if (a>b) {
            if (a>c) System.out.println("Greatest = " + a);
            else System.out.println("Greatest = " + c);
        }
        else{
            if (b>c) System.out.println("Greatest = "+b);
            else System.out.println("Greatest = "+c);
        }
    }
}
```

```
Greatest = 15

Process finished with exit code 0
```

3. Write a Java program that takes a number as input and prints its multiplication table upto 10.

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```java
import java.util.Scanner;

public class week4_3 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number :");
        int n = sc.nextInt();
        for (int i = 1; i <= 10; i++)
            System.out.printf("%d x %d = %d\n", n, i, n*i);
    }
}
```

```
Enter the number :
5
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
```

4. Write a Java program to calculate the sum of following series:
1 + 2 + 3 + 4 + ... + N.

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```java
import java.util.Scanner;

public class week4_4 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N :");
        int n = sc.nextInt();
        int sum = 0;
        for (int i = 1; i<=n; i++) sum += i;
        System.out.println("Result : "+ sum);
    }
}
```

```
Enter N :
10
Result : 55
```

5. Write a Java program to take a number, divide it by 2 and print the result until the number becomes less than 10.

```java
import java.util.Scanner;

public class week4_5 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number :");
        int n = sc.nextInt();
        while(n>10){
            n/=2;
            System.out.println(n);
        }
    }
}
```

```
Enter number :
50
25
12
6
```

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6. Write a Java program to check whether a given character is a vowel or consonant.

```java
import java.util.Scanner;

public class week4_6 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter char :");
        char c = sc.nextLine().charAt(0);
        c = Character.toUpperCase(c);
        if (c == 'A' || c == 'E' || c == 'I' || c == 'O' || c == 'U')
            System.out.println("Vowel");
        else System.out.println("Consonant");
    }
}
```

```
Enter char :
a
Vowel
```

7. Write a Java program to find the smallest number among four given numbers.

```java
public class week4_7 {
    public static void main(String[] args) {
        int a=5,b=100,c=15,d=20;
        int max = a;
        if(max<b) max=b;
        if(max<c) max=c;
        if(max<d) max=d;
        System.out.println("Greatest = "+max);
    }
}
```

```
Greatest = 100

Process finished with exit code 0
```

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8. Write a Java program to calculate the sum of all even numbers from 1 up to a given number N.

```java
import java.util.Scanner;

public class week4_8 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N :");
        int n = sc.nextInt();
        int sum = 0;
        for (int i = 2; i<=n; i+=2) sum += i;
        System.out.println("Result : "+ sum);
    }
}
```

```
Enter N :
50
Result : 650
```

9. Write a Java program to check whether a given year is a leap year or not.

```java
public class week4_9 {
    public static void main(String[] args) {
        int y=2024;
        if(y%400 == 0)
            System.out.println("Leap year");
        else if (y%4 == 0 && y%100 != 0)
            System.out.println("Leap year");
        else
            System.out.println("Not Leap Year");
    }
}
```

```
Leap year

Process finished with exit code 0
```

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10. Write a Java program that takes a number as input and prints all its factors.

```java
import java.util.Scanner;

public class week4_10 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N :");
        int n = sc.nextInt();
        System.out.println("Factors :");
        for(int i=1; i<=n; i++) if(n%i == 0) System.out.println(i);
    }
}
```

```
Enter N :
20
Factors :
1
2
4
5
10
20
```