

WT LAB
ASSIGNMENT:- 5

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BRANCH :- CSE

1. Check Even/Odd.

```
import java.util.Scanner;

public class EvenOdd
{
    public static void main(String[] args)
    {
        Scanner reader = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int a = reader.nextInt();
        if (a % 2 == 0)
            System.out.println(a + " is even");
        else
            System.out.println(a + " is odd");
    }
}
```

OUTPUT:

```
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=59017:C:\Program Files\JetBrains\Int
Enter a number: 53
53 is odd

Process finished with exit code 0
|
```

2. Area and Perimeter of a Rectangle.

```
import java.util.Scanner;
public class AreaPerimeter
{
    public static void main(String[] args)
    {
        int l, b, perimeter, area;
        Scanner s = new Scanner(System.in);
        System.out.print("Enter length of rectangle:");
        l = s.nextInt();
        System.out.print("Enter breadth of rectangle:");
        b = s.nextInt();
        perimeter = 2 * (l + b);
        System.out.println("Perimeter of rectangle:"+perimeter);
        area = l * b;
        System.out.println("Area of rectangle:"+area);
    }
}
```

}

OUTPUT:

```
C:\Program Files\Java\jdk-17.0.2\bin\java.exe -javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=59163:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\bin -Dfile.encoding=UTF-8
Enter length of rectangle:4
Enter breadth of rectangle:6
Perimeter of rectangle:28
Area of rectangle:48

Process finished with exit code 0
```

3. Factorial of an Integer.

```
public class Factorial
{
    public static void main(String[] args)
    {
        int a = 14;
        long factorial = 1;
        for(int i = 1; i <= a; ++i)
        {
            factorial *= i;
        }
        System.out.printf("Factorial of %d = %d", a, factorial);
    }
}
```

OUTPUT:

```
C:\Program Files\Java\jdk-17.0.2\bin>java.exe --javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=59189:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\bin java -jar C:\Users\johnd\AppData\Local\Temp\jetbrains-agent\jetbrains-agent.jar
Factorial of 14 = 87178291200
Process finished with exit code 0
```

4. Root of a Quadratic Equation.

```
public class Quadratic  
{  
  
  public static void main(String[] args)  
  {  
    double a = 2.3, b = 4, c = 5.6;  
    double root1, root2;  
    double determinant = b * b - 4 * a * c;  
    if (determinant > 0)  
    {  
      root1 = (-b + Math.sqrt(determinant)) / (2 * a);
```

```

        root2 = (-b - Math.sqrt(determinant)) / (2 * a);
        System.out.format("root1 = %.2f and root2 = %.2f", root1, root2);
    }
    else if (determinant == 0)
    {
        root1 = root2 = -b / (2 * a);
        System.out.format("root1 = root2 = %.2f;", root1);
    }
    else
    {
        double real = -b / (2 * a);
        double imaginary = Math.sqrt(-determinant) / (2 * a);
        System.out.format("root1 = %.2f+%.2fi", real, imaginary);
        System.out.format("\nroot2 = %.2f-%.2fi", real, imaginary);
    }
}
}
}

```

OUTPUT:

```

"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=59516:C:\Program Files\JetBrains\Int
root1 = -0.87+1.30i
root2 = -0.87-1.30i
Process finished with exit code 0

```

5. Temperature conversion.

```

public class Temperature
{
    public static void main(String[] args)
    {
        float Fahrenheit, Celsius;
        Celsius = 18;
        Fahrenheit = ((Celsius * 9) / 5) + 32;
        System.out.println("Temperature in Fahrenheit is: " + Fahrenheit);
    }
}

```

OUTPUT:

```

"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=59374:C:\Program Files\JetBrains\Int
Temperature in Fahrenheit is: 64.4
Process finished with exit code 0

```

6. Second to hours, minutes and seconds.

```
import java.util.Scanner;  
public class Time  
{  
    public static void main(String[] args)  
    {  
        Scanner in = new Scanner(System.in);  
        System.out.print("Input seconds: ");  
        int seconds = in.nextInt();  
        int a1 = seconds % 60;  
        int a2 = seconds / 60;  
        int a3 = a2 % 60;  
        a2 = a2 / 60;  
        System.out.print( a2 + ":" + a3 + ":" + a1);  
        System.out.print("\n");  
    }  
}
```

OUTPUT:

```
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=59414:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\bin" -Dfile.encoding=UTF-8
Input seconds: 86399
23:59:59

Process finished with exit code 0
```

7. Decimal to binary.

```
public class DecimalBinary
{
    public static void main(String[] args) {
        int Decimal = 78;
        String Binary = Integer.toBinaryString(Decimal);
        System.out.println(Decimal + " in decimal = " + Binary + " in binary.");
    }
}
```

OUTPUT:

```
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" --javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=51680:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\bin -jar C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\bin\idea_rt.jar 78 in decimal = 1001110 in binary.
```

Process finished with exit code 0

8. Sum of digit of an integer.

```
import java.util.Scanner;
public class Digit
{
    public static void main(String[] args)
    {
        int N, D, S = 0;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the number: ");
        N = sc.nextInt();
        while(N > 0)
        {
            D = N % 10;
            S = S + D;
            N = N / 10;
        }
        System.out.println("Sum of Digits: "+S);
    }
}
```

OUTPUT:

```
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=59439:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\bin" 59439
Enter the number: 978
Sum of Digits: 21

Process finished with exit code 0
```

9. Check Prime.

```
public class Prime
{
    public static void main(String[] args)
    {
        int N = 41;
        boolean A = false;
        for (int i = 2; i <= N / 2; ++i)
        {
            if (N % i == 0)
            {
                A = true;
                break;
            }
        }
    }
}
```

```
}  
if (!A)  
    System.out.println(N + " is a prime number.");  
else  
    System.out.println(N + " is not a prime number.");  
}  
}
```

OUTPUT:

```
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\lib\idea_rt.jar=59462:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.3.2\bin" -Dfile.encoding=UTF-8  
41 is a prime number.
```

```
Process finished with exit code 0
```