TUTORIAL 03

Q1. [1]

```
public class Main {
    public static void main(String[] args) {
        //1
        for (int i = 1; i < 6; i++) {
            System.out.println(i);
        }
    }
    }
```

[2]

```
public class Main {
    public static void main(String[] args) {
for (int i=0; i<15;i+=2) {
    if (i!=6) {
        System.out.println(i);
    }
  }
}
```

[3]

```
public class Main {
    public static void main(String[] args) {
int i=0;
        while (i<15){
            System.out.println(i);
            i+=2;
        }
    }
}
```

Q2.

```
public class Q2 {
    public static void main(String[] args) {
        int n = 5;
        nbPatter1(n);
    }

    public static void nbPatter1(int n) {
        for (int i = 1; i <= n; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print(j + " ");
```

```
            }
            System.out.println();
        }

    }
}
```

[Q3]

```
import java.util.Scanner;

public class Q3 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.println("Enter a number: ");
        int nb = input.nextInt();

        System.out.println("Enter a letter: ");
        String letter = input.next();

        int i = 1;

        while (i <= nb) {
            System.out.print(letter+" ");
            i++;
        }

    }
}
```

[Q4]

```
import java.util.Scanner;

public class Q4 {
    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("Enter your nb: ");
        int nb = input.nextInt();

        if (nb < 0) {
            System.out.println("Can't get factorial for - values.");
        } else {
            int Result = factorial(nb);
            System.out.println("Factorial of " + nb + " is: " + Result);
        }
    }

    private static int factorial(int n) {
        if (n == 0 || n == 1) {
```

```
            return 1;
        } else {
            return n * factorial(n-1);
        }
    }
}
```

[05]

```
import java.util.Scanner;

public class Q5 {
    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("Enter the value of n for Fibonacci series: ");
        int n = input.nextInt();

        System.out.println("Fibonacci series up to " + n + " terms:");
        for (int i = 1; i <= n; i++) {
            System.out.print(fibonacci(i) + " ");
        }
    }

    private static int fibonacci(int n) {
        if (n <= 1) {
            return n;
        } else {
            return fibonacci(n - 1) + fibonacci(n - 2);
        }
    }
}
```

[Q6]

```
import java.util.Scanner;

public class Q6 {
    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("Enter your first nb: ");
        double num1 = input.nextDouble();

        System.out.println("What do you want,(+,-,/,*) ");
        char operator = input.next().charAt(0);

        System.out.println("Enter your second nb: ");
        double num2 = input.nextDouble();
```

```
        double result = 0;
        switch (operator) {
            case '+':
                result = num1 + num2;
                break;
            case '-':
                result = num1 - num2;
                break;
            case '*':
                result = num1 * num2;
                break;
            case '/':
                if (num2 != 0) {
                    result = num1 / num2;
                } else {
                    System.out.println("Error: Division by zero");
                    return;
                }
                break;
            default:
                System.out.println("Invalid operator");
                return;
        }

        System.out.println("Result: " + result);
    }
}
```

[Q7]

```
import java.util.Scanner;

public class Q7 {
    public static void main(String[] args) {
        int correctPasscode = 486251;

        int maxAttempts = 4;

        Scanner input = new Scanner(System.in);

        int attempts = 0;

        while (attempts < maxAttempts) {
            System.out.print("Enter the passcode: ");

            int userPasscode = input.nextInt();

            if (userPasscode == correctPasscode) {
                System.out.println("Correct passcode");
                // Exit the program if the passcode is correct
                break;
            } else {
                attempts++;
```

```
                System.out.println("Incorrect passcode. Attempts remaining: "
+ (maxAttempts - attempts));
            }
        }


        input.close();

        if (attempts == maxAttempts) {
            System.out.println("Maximum attempts reached. Access denied.");
        }
    }
}
```

[Q10]