

**ASSIGNMENT 1**

**DAY 1 JAVA PROGRAMMING**

**1] Mention the difference between interpreter and compiler.**

<b>INTERPRETER</b>	<b>COMPILER</b>
Translates program one statement at a time.	Scans the entire program and translates it as a whole into machine code.
Interpreters usually take less amount of time to analyse the source code. However, the overall execution time is comparatively slower than compilers.	Compilers usually take a large amount of time to analyse the source code. However, the overall execution time is comparatively faster than interpreters.
No Object Code is generated, hence are memory efficient.	Generates Object Code which further requires linking, hence requires more memory.
Programming languages like JavaScript, Python, Ruby use interpreters.	Programming languages like C, C++, Java use compilers.

**2] Define a class Student with following members:**

**int roll, String name, float marks.**

**input() to take input of the details**

**display() to all details of a student.**

**Write a program to which will store details of a student and print the details using the above.**

```
public class Student
{
    private int roll;
    private String name;
    private float eng;
    private float hn;
    private float mts;
    private double total;
    private double avg;
```

```
public void accept() {  
    Scanner in = new Scanner(System.in);  
    System.out.print("Enter roll number: ");  
    roll = in.nextLine();  
    System.out.print("Enter student name: ");  
    name = in.nextLine();  
    System.out.print("Enter marks in English: ");  
    eng = in.nextInt();  
    System.out.print("Enter marks in Hindi: ");  
    hn = in.nextInt();  
    System.out.print("Enter marks in Maths: ");  
    mts = in.nextInt();  
}
```

```
public void compute() {  
    total = eng + hn + mts;  
    avg = total / 3.0;  
}
```

```
public void display() {  
    System.out.println("Roll: " + roll number);  
    System.out.println("Name: " + name);  
    System.out.println("Marks in English: " + eng);  
    System.out.println("Marks in Hindi: " + hn);  
    System.out.println("Marks in Maths: " + mts);  
    System.out.println("Total Marks: " + total);  
    System.out.println("Average Marks: " + avg);  
}
```

```
public static void main(String args[]) {  
    Student obj = new Student();  
    obj.accept();  
    obj.compute();  
    obj.display();  
}  
}
```