1. Difference Between Interpreter and Compiler

Interpreter	Compiler
Interpreter translates just one statement of the program at a time into machine code.	Compiler scans the entire program and translates the whole of it into machine code at once.
An interpreter takes very less time to analyze the source code. However, the overall time to execute the process is much slower.	A compiler takes a lot of time to analyze the source code. However, the overall time taken to execute the process is much faster.
An interpreter does not generate an intermediary code. Hence, an interpreter is highly efficient in terms of its memory.	A compiler always generates an intermediary object code. It will need further linking. Hence more memory is needed.
Keeps translating the program continuously till the first error is confronted. If any error is spotted, it stops working and hence debugging becomes easy.	A compiler generates the error message only after it scans the complete program and hence debugging is relatively harder while working with a compiler.
Interpreters are used by programming languages like Ruby and Python for example.	Compliers are used by programming languages like C and C++ for example.

2. **Define a class student with following 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.

```
import java.util.Scaner;

public class Student
{
    private String name;
    private int rollno;
    private int eng;
    private int hn;
    private int mts;
    private double total;
    private double avg;

    public void accept() {
        Scanner in = new Scanner(System.in);
        System.out.print("Enter student name: ");
        name = in.nextLine();
        System.out.print("Enter student rollno: ");
```

```
        rollno = 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("Name: " + name);
        System.out.println("rollno: " + rollno);
        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();
    }
}
```