Java Programming Zero to Hero

1. Difference between interpreter and compiler

Interpreter	Compiler
→ An Interpreter is that translates instruction by instruction to machine code and then executes each instruction before it move on to translate next instruction.	→ An compiler is that translate entire program an into an machine code.
→ Conditional statements takes more time to Execute	→ Conditional statement takes less time to execute
→ It program need to be compiled every time right after the instruction execute	→ Not need to compile every time
→ Errors displayed for every instruction interpreted	→ Errors are displayed entire program checked or only once.
→ Memory required is less	→ Memory required is more
Ex:- Basic , java interpreter	Ex:- C. compiler

2)

```java
import java.util.Scanner;
class student
{
    public static void main (String[] args)
    {
        int roll;
        String name;
        float marks;
        Scanner in = new Scanner (System.in);
        System.out.println (" Enter the roll number:" );
        roll number = in.nextInt();
        System.out.println (" Enter Student name");
        name = in.next();
        system.out.println (" Enter Student marks");
        marks = in.nextFloat();
        System.out.println ("--- Student details..");
        system.out.println (" student roll numbe :"+ roll);
        System.out.println (" Student Name : "+name);
        System.out.println (" Student Marks:"+marks );
    }
}
```

Administrator: Command Prompt

```
C:\Users\Admin\Desktop\notes\JAVA\upgrade>javac stu
student.java:15: error: cannot find symbol
                marks=in.nextFloat;
                       ^
  symbol:   variable nextFloat
  location: variable in of type Scanner
1 error

C:\Users\Admin\Desktop\notes\JAVA\upgrade>javac stu
student.java:15: error: cannot find symbol
                marks=in.nextFloat;
                       ^
  symbol:   variable nextFloat
  location: variable in of type Scanner
1 error

C:\Users\Admin\Desktop\notes\JAVA\upgrade>javac stu

C:\Users\Admin\Desktop\notes\JAVA\upgrade>java stud
Enter Student rollnumber:
1
Enter Student Name:
raghu
Enter Student marks:
12.5
--------Students details---------
Student roll number:1
Student Name is:raghu
Student marks is:12.5
```

student - Notepad

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```java
import java.util.Scanner;
class student
{
        public static void main(String[] args)
        {
            int roll;
            String name;
            float marks;
            Scanner in=new Scanner(System.in);
            System.out.println("Enter Student rollnumber:");
                            roll = in.nextInt();
            System.out.println("Enter Student Name:");
                            name = in.next();
          System.out.println("Enter Student marks:");
            marks=in.nextFloat();

        System.out.println("--------Students details---------");

        System.out.println("Student roll number:"+roll);
        System.out.println("Student Name is:"+name);
        System.out.println("Student marks is:"+marks);


            }
}
```