Question Bank for Week 1:

Hey there, Let's solve out some questions which would make your brain work out and learn new conclusions.

Conclusions of Week 1:

Introduction to Java

1. Java Virtual Machine searches for a ***public*** **class with a main() method defined with** ***public*** **and** ***static*** **specifiers with** ***void*** **as return type and a** ***String type Array*** **as its** ***parameter. It MAY also include any other access specifier like final, etc. in its method definition.***

2. *javac* command is used to compile the Java Program on Console and *java* command is used to run the Program.
3. Comments are used in a program to make your programs **readable**, **understandable** and **interpretable** to the other programmers. " Anyone can write a code that computer understands, Legends write code that Humans understands".
4. Three types of Comments :
    a. Single Line Comments :

```
// This is single Line comment.
```

    b. Multi Line Comments :

```
/* Hello Hi there
 hope you are fine
*/
```

    c. Documentation Comments :

```
/*
 * Hello
 * Why
*/
```

5. Block { } defines a **scope of accessibility**. It defines the area within which an element/entity of a program is accessible.
6. *System.out.println( )* is the statement which is used to **print anything to the console** and **shift** the cursor to the *next* line.
7. *Sysem.out.print( )* is the statement which is used to **print anything** to the console and in this case, the cursor *remains in the same line.*
8. After compilation of a program, a *platform independent, highly optimized set of instructions is formed. This is known as Bytecode and the Bytecode file has an extension of .class*
9. A class represents as a *single binding unit* and serves as a unit through which all its **members are accessible.**

10. **ln** means *line break*.
11. Formal Parameter List in the main( ) method is the *String type array*.
12. Parameter List is the list of **comma separated datatypes and variables** present in the method definition. i.e. in the ( ) present **just after** the method name.
13. *static* keyword makes an element of class accessible with just using the **class name.** We **need not** even instantiate/ create object of the class to access that element.
14. Syntax of assigning a value to a variable :

```
🛠️ data_type variable_name = value;
```

15. Each executable statement comprises semicolon (;). These semicolons are not allowed after the formal parameter list in a method definition.

Identifiers and Variables

1. Identifiers are used for identification purposes to **identify an element uniquely throughout a program.**

2. Identifiers must follow rules: -
   a. Should begin with **A-Z**, **a-z**, _ or *$*.
   b. It should be within the range of **10 to 15** characters range.
   c. It **must not** be a keyword.
   d. It **must be** a Legit Word.
   e. It **cannot** have a whitespace in between.
3. Variables are **containers which store some value of a specific type.**

Unsolved Practice Questions

> Preferred NOT TO RUN the program. If you dont know the answer, its alright. Dont worry. Wait for the answer key.

1. What can be the result of compiling this piece of code? (Assume that there is NO TYPING MISTAKE).

```
public class Xyz {
  public static void main;(String[] args){
    System.out.println("Hello");
  }
}
```

2. Which main( ) method definition is correct with respect to JVM.?

```
1 : public static void main()
2 : public void main(String[] data)
3 : static public final void main(String[] protocodata)
4 : private main()
```

3. What is the output of the following program?

```
public class Test{
  public static void main(String[] args){
    System.out.print("Is it true?");
    System.out.println("No");
  }
}
```

4. Identify the reason for the error(if any) in the program.

```
public class Test2 {
  public static void main(String[] args){
    int _321 = 21;
    double $a1 = 65.334;
    variable int = 98;
  }
}
```

5. Is there any error in the given below program ? State reason for the same.

```
class public {
  System.out.println("Hello");
}
```

6. Identify the ONLY 4 Correct identifiers from the list given below :

1 : *some*
2 : $_
3 : $3#
4 : #21
5 : 9q2
6 : ;;
7 : itMeansALot
8 : $_____

7. What is the correct character for terminating a statement in Java?
   A. A colon (:)
   B. An end-of-line character
   C. A tab character
   D. A semicolon (;)

8. Which of the following method signatures is not a valid declaration of an entry point in a Java application?
   A. public static void main(String[] arguments)
   B. public static void main(String arguments)
   C. public static final void main(String[] arguments)
   D. public static void main(String[] arguments)

9. What is the proper filename extension for a Java source file?

10. What is the first line to give a compile time error?

```
public class Test {
  public void main(String[] args) {               // 1
      int xy# = 201;                          // 2
  }
}
```

   A. Line 1

   B. Line 2

   C. Both lines at same time in any order.

   D. None of the above.

> Don't worry if you have compiled and tested the program. You still would have to state their reasons for the same. Best of Luck.