1. Why java is popular

* Robust
* Platform independent
* Lightweight
* No pointers => addresses
* OOPs concepts / principles
* Multithreaded
* Distributed environment
* Scalable
* Secured

1. Compilers and interpreters?

Compiler : check the complete code for syntax errors and if none then converts to some intermediate format

Hello.java => compiler => Hello.class (bytecode)

Interpreter -> read the code(.class) line by line and execute them to machine executable

1. JDK -> java dev kit [ comes up with the java libraries and all the excutable ]

JRE -> java runtime env [ provides with environment for java applications to execute and manage all java applications running]

JVM -> java virtual machine [ 1 instance of jvm per application ]

1. Packages : group of similar kind of classes

* Package names should all be small. And it is the 1st statement in the file except comments
* Class names every word should always start with uppercase

1. Diff between print and println
2. Data types - 8
   1. Byte
   2. Char
   3. Short
   4. Int
   5. Long
   6. Float
   7. Double
   8. Boolean – true or false
   9. String – derived data type
3. Variables
   1. Naming conventions
   2. Declaration and initialization
   3. For char wrap the values around ‘’
   4. For String wrap the values around “”
4. Operators
   1. Unary ++ -- - !
   2. Binary
      1. Arithmetic + - \* / %
      2. Relational < > <= >= == !=
      3. Logical & && | || So && and || are called short circuit operators
   3. Ternary ?:
5. Escape sequence : \n \t \” \’ \\
6. Conditional constructs
   1. If-else
   2. Switch-case
7. Looping constructs
   1. For
   2. While
   3. Do-while
   4. Break
   5. Continue
   6. Nested loops
8. Arrays
   1. collection of data of same type
   2. it is stored in continuous memory locations
   3. size once declared is fixed
   4. uses [] syntax to create arrays
   5. arrays support indexing that starts from index 0 to length-1
   6. Arrays have a length property that displays the total size of the array
   7. Depending on what type of array it is, it has a default value
      1. Primitives : primitive defaults ex: int 0, double 0.0
      2. Reference types like String or user defined => null