Instructions: Research common Java interview questions online and create 20 flash cards from the information you find. Study your flash cards regularly to better prepare for interviews. Fill out the table below with the information you put on each of your flash cards. https://www.simplilearn.com/tutorials/java-tutorial/java-interview-questions

Front of Card	Back of Card
Difference between C++ and Java?	**Java can run on any machine. Programs are written once and run everywhere. C++ is written once but compiled anywhere.**
List features of Java Programming language:	**Its considered an easy language to learn, It is Secure and develops a virus-free and tamper-free system. OOP- Object Oriented Programming- Signifies that in Java everything is considered an object. Independent Platform: Java is not compiled into a platform-specific machine; instead, it is compiled into platform-independent bytecode. This code is interpreted by the Virtual Machine on which the platform runs.**
Class Loader	**A classloader in Java is a subsystem of Java Virtual Machine, dedicated to loading class files when a program is executed; ClassLoader is the first to load the executable file.**
5 Memory Allocations:	***Class Memory *Heap Memory *Program Counter Memory *Stack Memory *Native Method Stack Memory**
Differences between Heap and Stack Memory?	**Stack memory in dats structures is the amount of memory allocated to each individual programm. It is a fixed memory space. Heap memory, in contrast, is the portion that was not assigned to the Java code but will be available for use by the Java code when it is required, which is generally during the program's runtime.**
Package in Java:	**The package is a collective bundle of classes and interfaces and the necessary libraries and JAR files. The use of packages helps in code reusability.**

Difference between instance and local variables?	**For instance, variables are declared inside a class, and the scope of variables in javascript is limited to only a specific object. A local variable can be anywhere inside a method or a specific block of code. Also, the scope is limited to the code segment where the variable is declared.**
What is Java String Pool?	**A collection of strings in Java's Heap memory is referred to as Java String Pool. In case you try to create a new string object, JVM first checks for the presence of the object in the pool. If available, the same object reference is shared with the variable, else a new object is created.**
What is an Exception?	**Exception handling in java is considered an unexpected event that can disrupt the program's normal flow. These events can be fixed through the process of Exception Handling.**
What is the final keyword in Java?	**The term final is a predefined word in Java that is used while declaring values to variables. When a value is declared using the final keyword, then the variable's value remains constant throughout the program's execution.**
What happens when the main() isn’t declared as static?	**When the main method is not declared as static, then the program may be compiled correctly but ends up with a severe ambiguity and throws a run time error that reads "NoSuchMethodError."**

Why is Java a platform independent language?	**One of the most well-known and widely used programming languages is Java. It is a programming language that is independent of platforms. Java doesn't demand that the complete program be rewritten for every possible platform. The Java Virtual Machine and Java Bytecode are used to support platform independence. Any JVM operating system can run this platform-neutral byte code. The application is run after JVM translates the byte code into machine code. Because Java programs can operate on numerous systems without having to be individually rewritten for each platform, the language is referred to as "Write Once, Run Anywhere" (WORA).**
Why is the Main method static in Java?	**Java's main() function is static by default, allowing the compiler to call it either before or after creating a class object. The main () function is where the compiler begins program execution in every Java program. Thus, the main () method needs to be called by the compiler. If the main () method is permitted to be non-static, the JVM must instantiate its class when calling the function.**
What part of memory - Stack or Heap - is cleaned in the garbage collection process?	**On Heap memory, garbage collection is employed to release the memory used by objects with no references. Every object created in the Heap space has access to the entire application and may be referred to from anywhere.**
What is the difference between the program and the process?	**A program is a non-active entity that includes the collection of codes necessary to carry out a specific operation. When a program is run, an active instance of the program called a process is launched. A process is begun by a program once it has been run. The process carries out the program's specified instructions.**

What are the differences between constructor and method of class in Java?	**Initializing the state of the object is done by constructors. A function Object () { [native code] }, like methods, contains a group of statements (or instructions) that are carried out when an object is created. A method is a group of statements that work together to complete a certain task and return the outcome to the caller. A method has the option of working without returning anything.**
Which among String or String Buffer should be preferred when there are a lot of updates required to be done in the data?	**Because StringBuilder is quicker than StringBuffer, it is advised to utilize it wherever possible. However, StringBuffer objects are the best choice if thread safety is required.**
What happens if the static modifier is not included in the main method signature?	**The main function is called by the JVM even before the objects are created, thus even if the code correctly compiles, there will still be an error at runtime.**
What happens if there are multiple main methods inside one class of Java?	**There is no limit to the number of major approaches you can use. Overloading is the ability to have main methods with different signatures than main (String []), and the JVM will disregard those main methods.**
Why does the java array index start with 0?	**The distance from the array's beginning is just an offset. There is no distance because the first element is at the beginning of the array. Consequently, the offset is 0.**