Just Research on LinkedIn, 7/10 jobs are related to Java Many people Learned Java in Bachelors Overll Why Java for Automation Tester? More Opportunities in Companies Already so many documentation / problem √ What is Java? √ History and Features of Java √ C++ vs Java √ Hello Java Program Basics of Java √ Internal How to set the path? √ JDK, JRE, and JVM (Java Virtual Machine) √ JVM Memory Management √ Internal details of JVM √ Unicode System, Operators, Keywords, and Control Statements like if-else, switch, For loop, while loop, etc. √ Naming convention of Java √ Classes, Objects, and Features. It explains how to declare a class, how to create an object in Java. Class, Object, and Types of classes $\sqrt{}$ Object declaration and initialization √ Life cycle of an object √ Anonymous object in Java $\sqrt{\ }$ How to declare package in a company √ Package naming conventions Packages in Java √ Sub packages √ Types of packages such as user-defined packages, built-in packages √ Importing packages in Java Data types in Java √ Primitive data types Data types in Java √ Non-primitive data types √ Memory allocation of primitive and nonprimitive data types, etc. √ Variable declaration & initialization √ Naming convention Variables, Constants, and Literals $\sqrt{}$ Types of variables such as local variables, instance variables, and static variables $\sqrt{}$ Scope and memory allocation of variables. √ Methods in Java √ Use of method in Java √ Method declaration, method signature √ Types of methods in Java: predefined Methods in Java method, user-defined methods: instance method, static method √ Calling of method √ Java main method √ Return type in Java. √ What is Constructor in Java? √ Types of constructors: Default and Parameterized constructors Constructor in Java √ Java constructor overloading √ Constructor chaining in java √ Copy constructor in Java √ What is Access modifier and Non-access modifier in Java? $\sqrt{}$ Types of access modifiers like private, Modifiers in Java default, protected, and public √ Types of Non-access modifiers like abstract, final, native, static, Strictfp, synchronized modifier, transient, volatile. What is Inner class in Java?, Properties of inner class, Instantiating inner class. Inner Class in Java √ Types of inner class in Java: Normal inner class, Method local inner class, Anonymous inner class, and Static nested class. Encapsulation Inheritance OOPs concepts Polymorphism Abstraction √ Final keyword √ Final variable Final Keyword √ Final method √ Final class. √ What is Static keyword? √ Static variable √ Static method Static Keyword Keywrods √ Static block, Instance block √ Static Nested Class in Java √ Difference between static variable and instance variable, static method and instance method, static block, and instance block. √ Super keyword √ Calling of superclass instance variable **Topics for Java** √ Superclass constructor Super and this Keyword √ Superclass method. The second section deals with √ This keyword $\sqrt{}$ Calling of current class constructor, and How I Learned Java to Become Garbage Collection Test Automation Engineer / FileOutputStream, FileInputStream **Automation Tester** √ BufferedOutputStream, (with Roadmap / Action Plan)? BufferedInputStream √ SequenceInputStream √ ByteArrayOutputStream, ByteArrayInputStream √ DataOutputStream, DataInputStream √ Java FilterOutputStream, Java FilterInputStream √ Java ObjectStream, Java ObjectStreamField √ Console $\sqrt{\text{FilePermissionWriter, Reader, FileWriter,}}$ Input Output Stream √ BufferedWriter, BufferedReader √ CharArrayReader, CharArrayWriter √ PrintStream, PrintWriter √ OutputStreamWriter, InputStreamReader $\sqrt{PushbackInputStream, PushbackReader}$ √ StringWriter, StringReader √ PipedWriter, PipedReader √ FilterWriter, FilterReader, File FileDescriptor, RandomAccessFile, and java.util.Scanner. √ What is Collections Framework? √ List, Set, SortedSet, Queue, Deque, Map, Iterator, ListIterator, and Enumeration. √ ArrayList, LinkedList, HashSet, LinkedHashSet, TreeSet, ArrayDeque, PriorityDeque, EnumSet, AbstractCollection, AbstractList, AbstractQueue, AbstractSet, and AbstractSequentialList. Collections Framework √ Map, Map Entry, SortedMap, and NavigableMap √ HashMap, LinkedHashMap, TreeMap, IdentityHashMap, WeakHashMap, and √ Comparator, RandomAccess interfaces as well as Observable class. Serialization Serialization, Deserialization, √ Try-catch block √ Multiple Catch Block √ Nested try block √ Finally block Exception Handling in Java √ Throw Keyword √ Throws Keyword √ Throw vs Throws, Final vs Finally vs Finalize √ Exception Handling with Method Overriding Java Custom Exceptions Java Arrays & String, String Buffer, String Java multithreading $\sqrt{}$ Multithreading life cycle of a thread creating √ Thread scheduler √ Sleeping a thread, Start a thread twice √ Calling run() method √ Joining a thread √ Naming a thread √ Thread priority, Java Thread √ Daemon thread √ Thread pool √ Thread group √ Shutdownhook √ Java Synchronization: synchronized method, synchronized block, static synchronization √ Deadlock √ Inter-thread Communication √ Interrupting Thread @Override, @SuppressWarnings, @ Deprecated, @Target, @Retention, @ Java Annotations Inherited, @Documented, Java custom annotations, and types of annotations. Core Java Collections 30 Days Plan Threading Daily Ihour Practice Do Projects on Sat/ Sun LeetCode How to Prepare & Tips for Who want to Learn? Practice Websites HackerRANK CodeAcademy https://amzn.to/3yGfGi8 Core Java Books to Buy for Java Data Structure https://amzn.to/3yNtZBRAmazing Website to Learn Java Educative.io √ Singleton Object $\sqrt{\ }$ Singleton design pattern with Serialization - Design Pattern √ Factory Pattern **Advance Java Topics** √ Abstract Factory. Page Object Model For Web Automation https://education.oracle.com/oracleď certification-path/pFamily_48 Oracle Certified Associate, Java SE 8 Certifications https://education.oracle.com/oraclecertified-associate-java-se-8-programmer/ trackp_333