

TECHGENX

Core Java

Please Note: All below course content will be covered in practical scenarios and regular assignments will be shared. All sessions will be recorded and shared with student for future reference (free of cost). Along with below course.

Core Java -Getting Started

1. Setting up Java in Windows OS
2. Writing your First Java Program
3. Java Method
4. Constructor in Java
5. Java Access Modifiers – public, protected, private and default
6. Java for loop
7. Java while loop
8. Java do while loop
9. Java static keyword
10. Java break keyword
11. Java continue keyword

Core Java– Object Oriented Concepts

12. OOPS Concepts
13. Composition in Java
14. Inheritance in Java
15. Composition vs Inheritance in Java
16. Java Nested Classes

Core Java – Data Types and Operators

17. Java Data Types, Primitives and Binary Literals
18. Java Autoboxing and Unboxing

- 19. Java Wrapper Classes
- 20. Java Ternary Operator

Core Java – Interface, Abstract Class

- 21. Abstract Class in Java
- 22. Interface in Java
- 23. Difference between Abstract Class and Interface in Java

Core Java – String Manipulation

- 24. Why String is immutable and final?
- 25. Understanding Java String Pool
- 26. Java String subsequence example
- 27. Java String compareTo example
- 28. Java String substring example
- 29. Converting String to char and vice versa
- 30. Java Split String example
- 31. String to byte array and vice versa
- 32. String to char array
- 33. Java String concatenation
- 34. String, StringBuffer and StringBuilder in Java
- 35. String Programs in Java

Core Java – Arrays

- 36. Initializing an Array in Java
- 37. Two dimensional array in java
- 38. Java Array of ArrayList
- 39. String to String Array Example
- 40. Java Variable Arguments Explained
- 41. Java Array add elements

- 42. Sorting an Array in Java
- 43. Java String Array to String
- 44. Java ArrayList to Array
- 45. Converting Array to ArrayList in Java
- 46. How to copy arrays in Java

Core Java – Annotation and Enum

- 47. Java Annotations
- 48. Java @Override Annotation
- 49. Java Enum

Core Java – Collection & Generics

- 50. Java Collections Framework Tutorial
- 51. Java List
- 52. Java ArrayList
- 53. Java LinkedList
- 54. Java Set
- 55. Java HashSet
- 56. Java TreeSet
- 57. Java Map
- 58. Java HashMap
- 59. Java SortedMap
- 60. Java TreeMap
- 61. Java Queue
- 62. Java Stack
- 63. Java Iterator
- 64. Java ListIterator
- 65. Java PriorityQueue Example
- 66. Priority Queue Java
- 67. ArrayList vs CopyOnWriteArrayList
- 68. How to avoid ConcurrentModificationException when using an Iterator
- 69. Java Generics Example Tutorial

Core Java – IO Operations

- 70. Create a New File in Java
- 71. Delete a File in Java
- 72. File separators in Java
- 73. Delete a Directory Recursively in Java
- 74. Rename and Move a File in Java
- 75. Getting File Size in Java
- 76. Get File Extension in Java
- 77. How to check if File exists in Java
- 78. How to check if File is a Directory in Java
- 79. How to get File last modified date in Java
- 80. Java FileNameFilter example to list specific files
- 81. Java File Path, Absolute Path and Canonical Path Explained
- 82. How to set File Permissions in Java
- 83. 4 ways to copy File in Java
- 84. Reading File in Java using BufferedReader, Scanner, Files
- 85. Java Scanner Class
- 86. Open a File in Java
- 87. Read a File to String in Java
- 88. Java Read file line by line
- 89. How to write a File in Java
- 90. How to append data to a File in Java
- 91. Converting InputStream to File
- 92. Java Random Access File Example
- 93. Download File from URL Example
- 94. Java GZip Example
- 95. Temp Files in Java
- 96. Reading a CSV File using Java Scanner Class
- 97. Java Property File Example

Core Java – Exception Handling

- 98. Exception Handling in Java

- 99. java.lang.NoSuchMethodError
- 100. java.lang.NullPointerException

Core Java – MultiThreading and Concurrency

- 101. Threads in Java
- 102. Thread Life Cycle
- 103. Thread Sleep Example
- 104. Thread join Example
- 105. Thread wait, notify, notifyAll Example
- 106. Thread Safety in Java – Synchronization
- 107. Java ThreadLocal Example
- 108. Java Timer and TimerTask Example
- 109. Java Thread Pool Example
- 110. Java Callable Future Example
- 111. Java FutureTask Example
- 112. Java ScheduledThreadPoolExecutor Example
- 113. Java Lock Example

Core Java – Regular Expressions

- 114. Regular Expressions in Java Example Tutorial
- 115. Validating Email Address using Regular Expression in Java
- 116. Validating Phone Number using Regex in Java

Core Java Reflection API

- 117. Java Reflection API Tutorial

Java 8

- 118. Java 8 Features Overview
- 119. Java 8 interface changes

- 120. Lambda Expressions in Java
- 121. Stream API in Java
- 122. Java Date Time API Example Tutorial
- 123. Java Spliterator

Java 9

- 124. Java 9 Features
- 125. Java 9 private method in interfaces
- 126. Java 9 try-with-resources improvements
- 127. Java 9 Optional class improvements
- 128. Java 9 Stream API improvements
- 129. Java 9 “var” for local variables
- 130. Java 9 “_” (underscore) changes
- 131. Java 9 Factory Methods for Immutable List
- 132. Java 9 Factory Methods for Immutable Set
- 133. Java 9 Factory Methods for Immutable Map
- 134. Java 9 Modules
- 135. Java 9 Module Basics Part 2
- 136. Develop Java Module using Command Prompt
- 137. Develop Java Module using Eclipse
- 138. Develop Java Module using IntelliJ IDEA

Java 10

- 139. Java 10 Features
- 140. Java 10 Local Variable Type Inference

Java 11

- 141. Java 11 Features
- 142. 6 New Methods in Java 11 String Class

Core Java – Some Advanced Topics

- 143. Java Heap Memory and Stack Memory**
- 144. Java is Pass by Value and not Pass by Reference**
- 145. JVM Memory Model and Garbage Collection**
- 146. Serialization in Java**
- 147. Java System Class**
- 148. Internationalization (i18n) in Java**
- 149. Atomic Operations in Java**
- 150. Thread Dump in Java**
- 151. Deadlocks in Java**
- 152. Sorting Objects in Java**
- 153. Understanding JDK, JRE and JVM**
- 154. Java Classloader Example Tutorial**
- 155. Java clone object**