

#### Core Java Basics

- 1. JDK Setup
- 2. First Program
- 3. Developmnt structure
- 4. JDK 15 and Eclipse Setup
- 5. Programing elements
- 6. Printing in Command prompt
- 7. Local variables
- 8. Unary Operators
- 9. Command line arguments
- 10. if block
- 11. nested if blocks
- 12. if blocks with unary operators
- 13. else block
- 14. if-else blocks inside if block
- 15. if-else blocks inside else block
- 16. if-else blocks with unary operators
- 17. ternary operator
- 18. switch-cases
- 19. for-loop



- 20. break and continue
- 21. nesting of loops
- 22. labeled loops
- 23. for-each loop
- 24. while loop
- 25. do-while
- 26. Methods
- 27. attributes
- 28. SIB
- 29. IFR and Multiple classes
- 30. Object and reference variable
- 31. this key word
- 32. constructors
- 33. constructor overloading and this()
- 34. IIB
- 35. objects count
- 36. Encapsulation
- 37. Inheritance
- 38. super() calling statement
- 39. packages



**Core Java** 

- 40. access levels
- 41. abstrcat classes
- 42. interfaces
- 43. method overloading
- 44. method overriding
- 45. auto widening
- 46. explicit narrowing
- 47. auto upcasting
- 48. explicit down casting
- 49. achieving polymorphism
- 50. final key word
- 51. classpath
- 52. Javadoc, javap and jar commands
- 53. Scanner class
- 54. Eclipse

#### Core Java Advanced

- 1. Wrapper classes basics
- 2. auto boxing and auto unboxing
- 3. why do we require Exception Handling



- 4. try-catch
- 5. try-catches
- 6. try-catch-finally
- 7. exceptional conditions of finally
- 8. return statement
- 9. Errors and Exceptions
- 10. Checked and Unchecked
- 11. throws
- 12. throw
- 13. throws in overriding
- 14. assertions
- 15. toString
- 16. equals
- 17. hashCode
- 18. Garbage Collection and clone
- 19. reflection api
- 20. basics
- 21. advanced
- 22. annotations
- 23. static imports



- 24. why do we required an inner classes
- 25. non static, staic and local inner classes
- 26. anaymous inner class
- 27. lambda expressions
- 28. basics
- 29. synchronization
- 30. thread life cycle
- 31. accessories
- 32. basics and important methods
- 33. StringBuffer
- 34. Formatters
- 35. Regular expressions
- 36. DateFormaters and NumberFormatters
- 37. arrays
- 38. introduction
- 39. basic operations
- 40. different collections
- 41. list
- 42. queues
- 43. avoiding duplicates (set)



- 44. maps
- 45. iterators
- 46. sorting
- 47. TreeSet and TreeMap
- 48. sorting map based on values
- 49. modifying collections classes as synchronized
- 50. concurrent package
- 51. sort even and odd separately
- 52. basics
- 53. advanced
- 54. basics
- 55. readers and writers
- 56. streams
- 57. serialization
- 58. adv serialization and externalization
- 59. PrintStream
- 60. serialVersionUID
- 61. for Each() method in Iterable interface.
- 62. default and static methods in Interfaces.
- 63. Functional Interfaces and Lambda Expressions.



- 64. double colon (::) Operator
- 65. for Each in detailed
- 66. Java Streams creation
- 67. Java Streams Usage
- 68. Java IO improvements.
- 69. Java Date and Time API Improvement
- 70. Collection API improvements
- 71. Concurrency API improvements