



# **JAVA 8 New Features**

## **Course Syllabus**

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**No of Videos: 93**

**No of Hrs:20+**

## **Topic: Introduction**

1.Introduction

## **Topic: Lambda Expressions & Functional Interfaces**

2.Lambda expressions : Introduction

3. How to Write Lambda expressions- Part-1

4. How to Write Lambda expressions -Part-2

5. Functional Interface

6. @FunctionalInterface Annotation

7. @FunctionalInterface Annotation wrt Inheritance

8. Invoking Lambda Expression By using Functional Interface  
example-1

9. Invoking Lambda Expression By using Functional Interface  
examples-2,3,4

10. Invoking Lambda Expression By using Functional Interface  
example-5

11. Functional Interface, Lambda Expression Summary

## **Topic: Lambda Expressions with Collections**

12. Collections Overview: List and Set

13. Collections Overview: Map

14. Comparator interface & compare method

- 15. Sorting Elements of List without Lambda Expression
- 16. Sorting Elements of ArrayList with Lambda Expression
- 17. Sorting Elements of TreeSet with Lambda Expression
- 18. Sorting Elements of TreeMap with Lambda Expression
- 19. Sorting of Our own class objects with Lambda Expression

### **Topic: Anonymous Inner Classes & Lambda Expressions**

- 20. Anonymous Inner class vs Lambda Expression Par-1
- 21. Anonymous Inner class vs Lambda Expression Par-2
- 22. Anonymous Inner class vs Lambda Expression Par-3
- 23. Differences between Anonymous Inner class & Lambda expressions

### **Topic: Default Methods and Static Methods in Interfaces**

- 24. Default Methods Inside Interfaces
- 25. Differences between Interface with Default Methods and Abstract classes 17
- 26. Static Methods inside Interfaces 18

### **Topic: Predefined Functional Interfaces -Predicate**

- 27. Predefined Functional Interfaces-Predicate Part-1
- 28. Predefined Functional Interfaces-Predicate Part-2
- 29. Predefined Functional Interfaces-Predicate Part-3
- 30. Predefined Functional Interfaces-Predicate Joining

- 31. Program to display names starts with 'K' by using Predicate
- 32. Predicate Example to Remove null values and Empty String from the given List?
- 33. Program for User Authentication by using Predicate
- 34. Program to Check Whether Software Engineer is allowed into Pub or not?
- 35. Employee Management Application by using Predicate Part-1
- 36. Employee Management Application by using Predicate Part-2
- 37. Employee Management Application by using Predicate Part-3
- 38. Predicate interface isEqual() method

### **Topic: Predefined Functional Interfaces -Function**

- 39. Predefined Functional Interfaces-Function
- 40. Program to remove spaces present in the given String by using Function
- 41. Program to find Student Grade by using Function
- 42. Program to find Total Monthly Salary of All Employees by using Function
- 43. Program to perform Salary Increment for Employees by using Predicate & Function

44. Function Chaining

45. Demo program to Demonstrate the difference between andThen() and compose()

46. Demo Program for User Authentication by using Function Chaining

47. Function interface Static Method : identity()

### **Topic: Predefined Functional Interfaces -Consumer**

48. Consumer Introduction

49. Program to display Movie Information by using Consumer

50. Program to display Student Information by using Predicate,Function and Consumer

51. Consumer Chaining

### **Topic: Predefined Functional Interfaces - Supplier**

52. Supplier Introduction

53. Program to get System Date by using Supplier

54. Program to get Random Name by using Supplier

55. Program to get Random OTP by using Supplier

56. Program to get Random Password by using Supplier

57. Comparison Table of Predicate,Function,Consumer and Supplier

### **Topic: Two-Argument (Bi) Functional Interfaces- BiPredicate, BiFunction & BiConsumer**

58. Introduction

69. BiPredicate

60. BiFunction

61. Creation of Student object by taking name and rollno as input with BiFunction

62. Calculate Monthly Salary With Employee and TimeSheet By using BiFunction

63. BiConsumer

64. Demo Program to Increment Employee Salary by using BiFunction & BiConsumer

65. Comparison Table between One-Argument & Two-Argument Functional Interfaces

### **Topic: Primitive Type Functional Interfaces, Unary Operator and Binary Operator**

66. Autoboxing, Autounboxing and Type Parameter

67. Need of Primitive Type Functional Interfaces

68. Primitive Type Functional Interfaces for Predicate

69. 3 Demo Programs about Primitive Type Functional Interfaces for Function

70. All 15 Primitive Type Functional Interfaces for Function

71. Primitive Versions for Consumer

72. Primitive Versions for Supplier

73. UnaryOperator and its Primitive Versions

74. BinaryOperator

75. Primitive Versions for BinaryOperator

### **Topic: Method and Constructor Reference By using :: Operator**

76. Method Reference By Double Colon(::) Operator Part-1

77. Method Reference By Double Colon(::) Operator Part-2

78. Constructor Reference By Double Colon(::) Operator

### **Topic: Streams**

79. Introduction to Streams

80. Methods of Streams:filter() and map()

81. Difference between filter() and map()

82. Various methods of Stream Part-1

83. Various methods of Stream Part-2

84. Various methods of Stream Part-3

85. Various methods of Stream Part-4

86. Summary of Streams

### **Topic: Date and Time API**

87. Date and Time API Introduction Part-1

88. Date and Time API Introduction Part-2

89. Date and Time API Introduction Part-3

90. Date and Time API Introduction Period & Year

91. Date and Time API Introduction ZonedDateTime, ZonedDateTime

### **Topic: Java 8 New Features Summary**

92.Summary Part - 1

93.Summary Part - 2