

Core Java 8 and Development Tools

Lesson 00: Java SE 8

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Document History

Date	Course Version No.	Software Version No.	Developer / SME	Change Record Remarks
12-Oct-2009	2.0	1.5	Anitha, Habib & Mahima	Revamped from J2SE 1.4 to J2SE 1.5
27-Oct-2009	3.0	1.5	CLS Team	Review
4 Jul 2011	4.0	1.5	Shrilata T	Changes in material made based on integration process
1 Mar 2015	5.0	1.8	Vinod Satpute	Changes made to include new features of Java version 6,7 and 8
25-May-2016	6.0	1.8	Tanmaya Acharya Uma Ponniamman	Changes made as per the ELT integrated TOC
5-Aug-2016	7.0	1.8	Yogini Naik	Changes made as per the Abridged JEE TOC

Course Goals and Non Goals

- Course Goals

- Implementing OOPs features in Java
- Developing Java Desktop Applications
- Use of Core JDK 1.8 API including JDBC 4.0
- Testing using Junit 4
- Logging Application using Log4J
- Implementing Multithreading



- Course Non Goals

- Developing GUI applications

Pre-requisites

- Basic Programming Concepts
- OOPs
- DBMS/SQL
- XML

Intended Audience

- Developers new to Java technology



Day Wise Schedule

■ Day 1

- Lesson 1: Introduction to Java
- Lesson 2: Eclipse 4.4 (Luna) as an IDE
- Lesson 3: Language Fundamentals
- Lesson 4: Classes and Objects

■ Day 2

- Lesson 5: Exploring Basic Java Class Libraries
- Lesson 6: Inheritance and Polymorphism

■ Day 3

- Lesson 7: Abstract Classes and Interfaces
- Lesson 8: Regular Expressions

Day Wise Schedule

- Day 3
 - Lesson 7: Abstract Classes and Interfaces
 - Lesson 8: Regular Expressions
- Day 4
 - Lesson 9 : Exception Handling
 - Lesson 10: Array
- Day 5
 - Lesson 11: Collection
 - Lesson 12: Generics

Day Wise Schedule

- Day 6
 - Lesson 13: File IO
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- Day 7
 - Lesson 15: Property Files
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 - Lesson 17: Introduction to Layered Architecture
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 - Lesson 18: Logging with Log4J
 - Lesson 20: Multithreading

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 - 1.2: Features of Java
 - 1.3: Simple Program in Java
 - 1.4: Developing software in Java
- Lesson 2: Eclipse 4.4 (Luna) as an IDE
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 - 2.2: Introduction to Eclipse IDE
 - 2.3: Creating and Managing Java Projects
 - 2.4: Miscellaneous Options

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- Lesson 8: Regular Expressions

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References

- Books:

- Java, The Complete Reference; by Herbert Schildt
- Thinking in Java; by Bruce Eckel
- Beginning Java 8 Fundamentals by Kishori Sharan



- Websites:

- Java home page: <http://java.sun.com/>
- JDK 1.8 documentation: <http://docs.oracle.com/javase/8/docs/>
- Multithreading :
<https://docs.oracle.com/javase/tutorial/essential/concurrency/index.html>

Next Step Courses

- Servlets
- JSP



Other Parallel Technology Areas

- C ++
- C#.Net
- Visual Basic.Net