Core Java 8 and Development Tools
Lesson 00: Java SE 8

IGATE is now a part of Capgemini

People matter, results count.
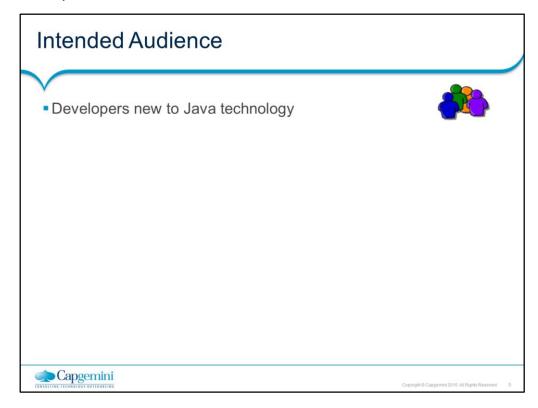
Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

Course Goals and Non Goals

➢Course Goals
- Implementing OOPs features in Java
- Developing Java Desktop Applications
- Use of Core JDK 1.8 API
- Testing using Junit 4

➢Course Non Goals
- Developing GUI applications

Pre-requisites

- Basic Programming Concepts
- OOPs

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

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
  - Lesson 5: Exploring Basic Java Class Libraries
- Day 2
  - Lesson 6: Inheritance and Polymorphism
  - Lesson 7: Abstract Classes and Interfaces
- Day 3
  - Lesson 8: Regular Expressions
  - Lesson 9 : Exception Handling
  - Lesson 10: Array

Day Wise Schedule

- Day 4
  - Lesson 11: Collection
  - Lesson 12: File IO
- Day 5
  - Lesson 13: Introduction to JUnit 4 /Test NG
  - Lesion 14: Advanced Testing Concepts

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

7

Table of Contents

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

8

Core Java 8 and Development Tools

Table of Contents

- Lesson 3: Language Fundamentals
  - 3.1: Keywords
  - 3.2: Primitive Data Types
  - 3.3: Operators and Assignments
  - 3.4: Variables and Literals
  - 3.5: Flow Control: Java's Control Statements
  - 3.6: Best Practices
- Lesson 4: Classes and Objects
  - 4.1: Classes and Objects
  - 4.2: Packages
  - 4.3: Access Specifies
  - 4.4: Constructors - Default and Parameterized
  - 4.5: this reference
  - 4.6 using static keyword
  - 4.7: Best Practices

Table of Contents

- **Lesson 5: Exploring Basic Java Class Libraries**
  - 5.1: The Object Class
  - 5.2: Wrapper Classes
  - 5.3: Type casting
  - 5.4: Using Scanner Class
  - 5.5: String Handling
  - 5.6: Date and Time API
  - 5.7: Best Practices
- **Lesson 6: Inheritance and Polymorphism**
  - 6.1: Inheritance
  - 6.2: Using super keyword
  - 6.3: Instance Of Operator
  - 6.4: Method & Constructor overloading
  - 6.5: Method overriding
  - 6.6: @override annotation
  - 6.7: Using final keyword
  - 6.8 Best Practices

Table of Contents

Table of Contents

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

Table of Contents

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

Table of Contents

Table of Contents

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

Copyright © Capgemini 2015. All Rights Reserved   15

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/

Next Step Courses

- Servlets
- JSP

Other Parallel Technology Areas

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