**Course Sheet Template for Campus Hire Induction Program – Core Java**

**Name: CH- Core Java**

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| **Version No.** | **Date** | **Affected Sections** | **Brief Description of Change** |
| 1.0.0 | 23-Mar-2017 | All | Original Version |
| 2.0.0 | 30-Jul-2018 | None | Annual Review 2018. No changes made. |

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## **Definition and Purpose**

1. **Objective:**

The training program is designed to give a comprehensive knowledge from the basic programming using OOPs to the web application and a foundation about the OOPS Concept combined with the Java Programming to the trainees who can be mapped to full stack java developer of s1 skill.

1. **Scope:**

At the end of training, Campus Hire Trainees have strong knowledge on Oops and Java

1. **Content:**

* Introduction to Java Programming
* Language Fundamentals
* Object Oriented Concepts
* Exception Handling
* Collections
* Multithreading
* JUNIT
* JDK 7 and JDK 8 Instruction

1. **Methodology/Training Aids:**

This is an instructor-led program. Training aids used are a projector, PPT, whiteboard, marker. Implementing Blended training approach which contains 50% classroom training and 50% practice time.

1. **Target Audience:**

This tutorial has been prepared for the beginners to help them understand the basic to advanced concepts related to Java Programming language.

1. **Pre – requisites for Audience Profile:**

* C Programming
* Knowledge of Object-oriented programming would be an advantage

1. **Duration:**

8 hours for 6 Days

1. **Evaluation Criterion:**

Evaluation will be based on online assessments. A participant has to score at least 70% in each assessment.

1. **Session Plan:**

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| --- | --- | --- |
| **Days** | **Topic** | **Duration Theory & Hands-on**  **(Hours)** |
| **Day 1** | * Language Fundamentals (8 Hrs.) * Introduction to J2EE & Java Platforms * Variables, Methods and Data Types * Operators, Control Structures * Arrays, Arguments * Access Specifiers * Command line * Classes and Objects * Scanner Class * Packages | 480 mins |
| **Day 2** | * Object-Oriented Concepts (8 Hrs.) * Encapsulation & Abstraction * Type of Relationships in Java * Inheritance * Abstract Classes * Object-Oriented Concepts : Polymorphism * Interface | 480 mins |
| **Day 3** | * Special Type of Java Classes & APIs (8 Hrs.) * Enumeration * Nested Classes * String handling * Wrapper classes * Generics * Annotations | 480 mins |
| **Day 4** | * Exception Handling (3 Hrs.) * Handling Exceptions * Propagating Exceptions * User-defined Exceptions * Collections (5 Hrs.) * Introduction to Collection Framework * List * Set * Map * Iterator * ArrayList * HashSet * HasMap * Generics * Comparable * Comparator | 480 mins |
| **Day 5** | * JDBC (8 Hrs.) * Introduction to Drivers and Type of Drivers * Implementing CRUD Operations * PreparedStatement * CallableStatement * DataSource * Rowset and Connection Pooling | 480 mins |
| **Day 6** | * JUNIT 4.0 (4 Hrs.) * JUnit Overview * JUnit Test Framework * Test Cases * Test Suite * Exception Tests * Java 1.7 & 1.8 New Features (4 Hrs.) * Strings in switch statement * Multi catch exception handling * Underscores in numeric literals * Lambda Expressions * Method references * Default method * Date Time API | 480 mins |

**Note: The above session plan(s) is subject to change, based on business needs. No approvals are needed for the same.**