

Course Design Document – Core Java

1. About the Document:

This design document specifies all the decisions made about the course up to this time, including:

- Purpose of the course
- Intended outcome of the course
- Audience description
- Delivery method(s)
- What to train
 - High-level outline
 - Detailed lesson outlines
- Objectives of each lesson
- Assessments/exercises for each task

2. Purpose of the Design Document:

The purpose of the design document is to obtain agreement with all stakeholders about the vision and plan for the course. These parties include:

- Internal clients (BU SMEs) and reviewers
- Team members (iLD) working on the course
- External clients, if any

3. Sign-off:

At this point, obtaining a sign-off on the design document is important in ensuring agreement on the plan. Once an agreement is secured from key stakeholders work on developing the course materials can begin.

An approved course design document is required to release a course as an official curriculum

Key stakeholders for Design sign-off

- Designated Leader from BU (for BU-developed courses)
- Head of iLD

Contents of a Design Document

| S. No | Content | Page Number |
|-------|--|-------------|
| 1 | Purpose of the course | 4 |
| 2 | Audience description | 4 |
| 3 | Course objectives | 4 |
| 4 | Learning Assessment | 4 |
| 5 | Instructional Strategies | 4 |
| 6 | Media | 4 |
| 7 | Duration | 4 |
| 8 | Course Scope -detailed outline by unit /module, including: <ul style="list-style-type: none"> • Introduction • Objectives • Topic List • Duration • Practice check method | 5 |
| 9 | Activities Conducted - detailed outline for each activity planned, including: <ul style="list-style-type: none"> • Activity • Objective • Duration | 6 |
| 10 | Developmental Tools | 6 |
| 11 | Ownership and maintenance | 6 |
| 12 | Development time | 7 |
| 13 | Support requirements | 7 |
| 14 | Project sign-off sheet – ID, Project Manager, Client (internal or external) | 7 |

Purpose of the Course:

Core Java is the fundamental part of the Java JDK (the java development kit) that programmers need to learn to move on to other more advanced technologies. This course is designed to give associates the Java skills they need to excel as Java developers.

Audience Description:

The course is set for all entry-level associates at Intellect. The course is appropriate for associates who begin their career here at Intellect. This is a course that is significant to understand the concept of Java

Course Objectives:

During this course, the learner will:

- Understand Java in-depth
- Build their own Java applications
- Comprehend the importance of Java for any developing role

Learning Assessment:

There are assessments included as part of the final assessment after the training completion

Instructional Strategies:

This is an instructor-led in-person/virtual course with multiple illustrations. The following methods will be employed at various places in the course:

- Cases are taken as illustrations
- Facilitator-led discussion
- Common illustration discussions

Media:

The course will utilize the following media

- Slide Presentation/Images/platforms to run scripts

Duration:

This course is divided into 18 blocks, taking approximately 25 hours in total.

- Pre-Training Activity: There is no pre-training activity
- Post-Training Activity: There is no pre-training activity

Course Scope:

The course contains **18** lessons. The lesson brief is given below:

| Lesson | Topic List | Delivery Method | Duration | Practice check Method | Annexure |
|--------|------------|-----------------|----------|-----------------------|----------|
|--------|------------|-----------------|----------|-----------------------|----------|

| | | | | | |
|----|--|---------------------|-------------|----|----|
| 1 | Overview of Java | Trainer-led session | 30 Minutes | NA | NA |
| 2 | Data Types, Variables and Arrays | Trainer-led session | 30 Minutes | NA | NA |
| 3 | Operators | Trainer-led session | 30 Minutes | NA | NA |
| 4 | Control Statements | Trainer-led session | 60 Minutes | NA | NA |
| 5 | Introduction to class and object | Trainer-led session | 30 Minutes | NA | NA |
| 6 | Features of OOPS <ul style="list-style-type: none"> ● Encapsulation ● Inheritance ● Polymorphism ● Abstraction | Trainer-led session | 120 Minutes | NA | NA |
| 7 | Access modifiers and keywords and their use | Trainer-led session | 60 Minutes | NA | NA |
| 8 | Packages | Trainer-led session | 60 Minutes | NA | NA |
| 9 | Interfaces | Trainer-led session | 60 Minutes | NA | NA |
| 10 | Exception Handling | Trainer-led session | 60 Minutes | NA | NA |
| 11 | String classes o String, String Buffer, String Builder | Trainer-led session | 120 Minutes | NA | NA |
| 12 | Wrapper classes | Trainer-led session | 120 Minutes | NA | NA |
| 13 | Collections | Trainer-led session | 120 Minutes | NA | NA |
| 14 | Generics | Trainer-led session | 60 Minutes | NA | NA |
| 15 | Multithreaded Programming | Trainer-led session | 120 Minutes | NA | NA |

| | | | | | |
|----|-----------------|---------------------|-------------|----|----|
| 16 | I/O | Trainer-led session | 120 Minutes | NA | NA |
| 17 | Annotations | Trainer-led session | 60 Minutes | NA | NA |
| 18 | Java 8 Features | Trainer-led session | 240 Minutes | NA | NA |

Activities Conducted:

| Activity # | Activity | Objective | Duration | Annexure |
|------------|----------|-----------|----------|----------|
| NA | NA | NA | NA | NA |

Development Tools

The course was prepared in PPT and edited with video editing tools.

Ownership

The design and development of the course is by iLD Team - Intellect

Course approved by Dr. Vinay Menon – SVP iLD

Course revision from time to time by Ashok T - VP iLD

Approved facilitator:

Development Time

30 man-days (for course creation and editing as per guidelines)

Support Requirements

The course was developed completely by iLD Team - Intellect

Course Sign-off

Approved by:

Date:

Place:

Annexure

Not applicable