

Table of Contents

About This Course

Prologue -----	i
Description -----	i
Rationale -----	i
Objectives -----	i
Entry Profile-----	ii
Exit Profile -----	ii
 Conventions -----	iii

Programming in Java – Instructor Inputs

Session 1

Notes for Faculty -----	1.3
Session Overview -----	1.4
Creating Inner Class -----	1.4
Activity 1.1: Creating Inner Classes -----	1.7
Implementing Type Casting -----	1.8
Processing Strings Using Regex -----	1.10
FAQs -----	1.13

Session 2

Session Overview -----	2.3
Processing Strings Using Regex -----	2.3
Activity 2.1: Processing Strings Using Regex-----	2.4
Implementing Localization -----	2.4
Activity 2.2: Implementing Localization-----	2.6
Creating User-defined Generic Classes and Methods -----	2.7
FAQs -----	2.8

Session 3

Solutions to Exercises -----	3.3
Chapter 1-----	3.3
Chapter 2-----	3.3
Solutions to Additional Exercises -----	3.4
Chapter 1-----	3.4
Chapter 2-----	3.4

Session 4

Session Overview -----	4.3
Implementing Type-safety -----	4.3
Activity 3.1: Working with Generics -----	4.6
Using the Set Interface -----	4.6
Using the List Interface -----	4.9
Using the Map Interface -----	4.12
FAQs-----	4.16

Session 5

Session Overview -----	5.3
Using the Deque Interface-----	5.3
Implementing Sorting -----	5.4
Activity 4.1: Working with Collections-----	5.9
Using Threads in Java-----	5.9
Creating Threads-----	5.11
FAQs-----	5.12

Session 6

Solutions to Exercises-----	6.3
Chapter 3 -----	6.3
Chapter 4 -----	6.3
Solutions to Additional Exercises-----	6.4
Chapter 3 -----	6.4
Chapter 4 -----	6.4

Session 7

Session Overview -----	7.3
Creating Threads-----	7.3
Activity 5.1: Implementing Threads in Java -----	7.7
Implementing Thread Synchronization -----	7.8
Activity 6.1: Implementing Synchronization -----	7.11
Implementing Concurrency -----	7.12
FAQs-----	7.13

Session 8

Session Overview -----	8.3
Implementing Concurrency -----	8.3
Working with Input Stream -----	8.7
FAQs-----	8.10

Session 9

Solutions to Exercises-----	9.3
Chapter 5 -----	9.3
Chapter 6 -----	9.3
Solutions to Additional Exercises-----	9.4
Chapter 5 -----	9.4

Chapter 6-----	9.4
Session 10	
Session Overview -----	10.3
Working with Output Stream-----	10.3
Activity 7.1: Working with Input Stream and Output Stream -----	10.6
Introducing NIO -----	10.6
FAQs -----	10.9
Session 11	
Session Overview -----	11.3
Introducing NIO -----	11.3
Performing the Read and Write Operations on a File -----	11.4
Activity 8.1: Performing File Operations Using NIO -----	11.5
Identifying the Layers in the JDBC Architecture -----	11.5
Identifying the Types of JDBC Drivers -----	11.5
Using JDBC API -----	11.6
FAQs -----	11.7
Session 12	
Solutions to Exercises -----	12.3
Chapter 7-----	12.3
Chapter 8-----	12.3
Solutions to Additional Exercises -----	12.4
Chapter 7-----	12.4
Chapter 8-----	12.4
Session 13	
Session Overview -----	13.3
Using JDBC API -----	13.3
Accessing Result Sets -----	13.5
Activity 9.1: Creating a JDBC Application to Query a Database -----	13.6
Creating Applications Using the PreparedStatement Object-----	13.6
FAQs -----	13.8
Session 14	
Session Overview -----	14.3
Activity 10.1: Creating an Application that Uses the PreparedStatement Object -----	14.3
Managing Database Transactions -----	14.3
Implementing Batch Updates in JDBC -----	14.4
Creating and Calling Stored Procedures in JDBC -----	14.5
Using Metadata in JDBC-----	14.6
Activity 10.2: Creating an Application to Determine the Structure of a Table -----	14.7
FAQs -----	14.8

Session 15

Solutions to Exercises-----	15.3
Chapter 7 -----	15.3
Chapter 8 -----	15.3
Solutions to Additional Exercises-----	15.4
Chapter 7 -----	15.4
Chapter 8 -----	15.4