

CORE JAVA TRAINING

Learn the most demanded skill in industry

Duration:6 weeks Certified Training

About Core Java Training

The Core Java training is a 6-weeks training program covering the basic concepts of Java and Object-Oriented Programming such as arrays, methods, and inheritance, polymorphism, classes etc. As a part of the project, students will learn about Java FX and develop an awesome game using the same concepts. You will learn through video tutorials. For great hands on learning experience, this training program is packed with assignments, assessment tests, and exercises.

Following are the detailed table of contents of this training:

1. Basics of Java

- Java – What, Where and Why?
- All the important Features of Core Java
- Internals of Java Program
- Variable and Data Type Used in Java
- Naming Convention

2. Object Oriented Programming System(OOPS Concepts)

- Advantage of OOPs
- Object and Class
- Polymorphism (Method Overloading)
- Constructor and Destructor
- Static Keyword (Static variable, method and block)
- this keyword use
- Types of Inheritance in Core Java
- Aggregation and Composition(HAS-A)
- Method Overriding (Interface)
- Covariant Return Type of Function(Method)
- super keyword
- Instance Initializer block
- final keyword (Final variable , Final class , final function)
- Runtime Polymorphism
- Static and Dynamic binding
- Abstract class and Interface
- Down casting with instance of operator
- Package (Types of packages)and Access Modifiers

MCP TECHNOLOGIES

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Encapsulation and Data Abstraction
Object class
Object Cloning
Java Array , Array passing and returning
Call By Value and Call By Reference

3. Exception Handling Keywords (try , catch , throw , throws , finally)

Exception Handling : What and Why?
try and catch block
Multiple catch block
Nested try
finally block execution
throw keyword (user defined exception)
Exception Propagation
throws keyword and finally keyword
Custom Exception (user defined)

4. Multithreading

Multithreading : What and Why?
Life Cycle of a Thread
Creating Thread (Thread class , Runnable interface)
Thread Scheduler
Sleeping a thread (sleep(int) function)
Joining a thread
Setting Thread Priority (set Priority() function)
Performing multiple task by multiple thread
Runnable Interface technique use
Thread Synchronization
Synchronization of threads : What and Why required?
Synchronized method (Function)
synchronized block

5. Input and output (File Handling)

File Output Stream & File Input Stream
Byte Array Output Stream
Sequence Input Stream
Buffered Output Stream & Buffered Input Stream
File Writer & File Reader
Char Array Writer
Input from keyboard by Input Stream Reader
Input from keyboard by Console
Input from keyboard by Scanner
Print Stream class

Print Writer class
Compressing and Uncompressing File
Reading and Writing data simultaneously
Data Input Stream and Data Output Stream
Stream Tokenizer class

6. Applet

Life Cycle of Applet
Graphics class in Applet
Displaying image in Applet
Animation in Applet
Event Handling in Applet
J Applet class
Painting in Applet
Digital Clock in Applet
Analog Clock in Applet
Parameter in Applet
Applet Communication

7. AWT and Event Handling

AWT Controls and classes
Event Handling by 3 ways
Event classes and Listener Interfaces
Adapter classes in AWT
Creating Games and Applications by Java programming

8. Swing (Javax features)

Basics of Swing
JButton class use
JRadioButton class use
JTextArea class use
JComboBox class use
JTable class use
JColorChooser class use
JProgressBar class use
JSlider class use
Digital Watch
Graphics in swing
Displaying Image
Edit Menu for Notepad
Open Dialog Box
Creating Notepad
Creating Games and applications

9. Layout Managers

- Border Layout and its Use
- Grid Layout and its Use
- Flow Layout and its Use
- Box Layout and its Use
- Card Layout and its Use

10. Java Database Connectivity (JDBC)

- JDBC Drivers
- Steps to connect to the database
- Connectivity with Oracle database software
- Connectivity with MySQL database software
- Connectivity with Access without DSN
- Driver Manager class use
- Connection interface
- Statement interface
- Result Set interface
- Prepared Statement
- Result Set Meta Data
- Database Meta Data
- Storing image
- Retrieving image
- Storing file
- Retrieving file
- Stored procedures and functions
- Transaction Management
- Batch Processing
- JDBC New Features
- Mini Project