Certification In Java Language Course
Course Content

Introduction Of Java

* What Is Java?
* How To Get Java
* A First Java Program
* Compiling And Interpreting Applications
* The JDK Directory Structure

Data Types And Variables

* Primitive Datatypes ,Declarations
* Variable Names
* Numeric Literals,Character Literals
* String,String Literals
* Arrays,Non-Primitive Datatypes,
  G The Dot Operator

Operators And Expressions

* Expressions
* Assignment Operator
* Arithmetic Operators
* Relational Operators
* Logical Operators
* Increment And Decrement Operators
* Operate-Assign Operators (+=, Etc.)
* The Conditional Operator
* Operator Precedence
* Implicit Type Conversions
* The Cast Operator

Control Flow Statements

* Statements
* Conditional (If) Statements
* Data Types And Variables 3
* Adding An Else If

* Conditional (Switch) Statements
* While And Do-While Loops
* For Loops
* A For Loop Diagram
* Enhanced For Loop
* The Continue Statement
* The Break Statement

Methods
* Methods
* Calling Methods
* Defining Methods
* Method Parameters
* Scope
* Method Parameters

Object-Oriented Programming
* Introduction To Object-Oriented Programming
* Classes And Objects
* Fields And Methods
* Encapsulation
* Access Control
* Inheritance
* Polymorphism

Objects And Classes
* Defining A Class
* Creating An Object
* Instance Data And Class Data
* Methods
* Constructors
* Access Modifiers
* Encapsulation

Using Java Objects

* Printing To The Console
* Printf Format Strings
* Stringbuilder And Stringbuffer
* Methods And Messages
* Tostring
* Parameter Passing
* Comparing And Identifying Objects, Destroying Objects

Inheritance In Java

* Inheritance
* Inheritance In Java
* Casting
* Method Overriding
* Polymorphism
* Super
* The Object Class

Packages

* The Import Statement
* Static Imports
* Casting
* Classpath And Import
* Defining Packages
* Package Scope

Exception Handling

* Exceptions Overview
* Catching Exceptions
* The Finally Block
* Exception Methods
* Declaring Exceptions
* Defining And Throwing Exceptions
* Errors And Runtimeexceptions
* Assertions

Input / Output Streams

* Overview Of Streams
* Bytes Vs. Characters
* Converting Byte Streams To Character Streams
* File Object
* Binary Input And Output
* PrintWriter Class
* Reading And Writing Objects
* Basic And Filtered Streams

Collection Framework

* The Collections Framework
* The Set Interface
* Set Implementation Classes
* The List Interface
* List Implementation Classes
* The Map Interface
* Map Implementation Classesinner Classes
* Inner Classes
* Member Classes
* Local Classes
* Anonymous Classes
* Instance Initializers
* Static Nested Classes

Introduction To Threads

* Non-Threaded Applications
* Threaded Applications
* Creating Threads
* Thread States
* Runnable Threads
* Coordinating Threads
* Interrupting Threads
* Runnable Interface ,Threadgroups

Interfaces And Abstract Classes

* Separating Interface And Implementation
* UML Interfaces And Realization
* Defining Interfaces
* Implementing And Extending Interfaces
* Runnable Threads
* Abstract Classes

Serialization

* Object Serialization
* Serializable Interface
* Serialization API
* Objectinputstream And Objectoutputstream
* The Serialization Engine
* Transient Fields
* Readobject And Writeobject
* Externalizable Interface

Generics

* Using Generics
* Type Erasure
* Type Boundaries
* Wildcards , Generic Methods
* Strengths And Weaknesses Of Generics
* Legacy Code And Generics

Annotations

* Uses For Meta-Data
* The Annotations Model
* Annotation Types And Annotations
* Built-In Annotations
* Annotations Vs. Descriptors (Xml)

Reflection

* Uses For Meta-Data

* The Reflection Api ,The Class Class
* The Java.Lang.Reflect Package
* Reading Type Information
* Navigating Inheritance Trees
* Dynamic Instantiation ,Dynamic Invocation
* Reflecting On Generic