" Java: A simple, object-oriented, network-savvy, interpreted, robust, secure, architecture neutral, portable, high-performance, multithreaded, dynamic language."

**What is Java technology and why do I need it?**

Java is a programming language and computing platform first released by Sun Microsystems in 1995. There are lots of applications and websites that will not work unless you have Java installed, and more are created every day. Java is fast, secure, and reliable. From laptops to datacenters, game consoles to scientific supercomputers, cell phones to the Internet, Java is everywhere!

Introduction of Java Programming Language

* Why Java and its importance
* Introduction of OOPs
* Java features
* Java Class Structure and its member
* Main method in java.
* Printing in Java
* Java Coding Convention
* Java Data Types
* Typecasting
* Operators in Java
* Method declaration in Java
* Method calling in Java
* Method overloading in Java
* Constructor
* Arrays
* Conditional and looping Statement in java

Package Declaration

* Introduction to all predefined packages
* User Defined Packages
* Access Specifiers

Exception Handling

* Introduction
* Pre Defined Exceptions
* Try-Catch-Finally
* Throws, throw

OOPs

* Inheritance
* Method Overriding
* Field Hiding
* Use of this and super keyword
* Constructor chaining using this() and super()
* Abstract Classes, Final Classes
* Interfaces
* Reference assignment
* Use of instanceof operator
* Garbage Collections

Inner Classes

* Introduction
* Member inner class
* Static inner class
* Local inner class
* Anonymous inner class

Fundamental Classes

* Object
* String, StringBuffer and StringBuilder
* Character
* Math
* Byte, Short, Integer, Long, Float, Double, Character, Boolean classes.

Collection Frame Work

* java.util package interfaces: Collection, List, Set, Map
* Arrays and Collections class
* Comparable and Comparator
* Generics

Multi-Threading

* Introduction
* Thread Creations
* Thread Life Cycle
* Life Cycle Methods
* Synchronization

I/O Streams

* File Creation
* Reading and Writing Data from File
* Reading and Writing Data from console using Scanner class and BufferedReader class
* Object Saving(Serialization)

Features of Java8 to Java11

* Lambda Expressions
* Streaming API
* Functional Interface
* JODA date API
* ‘var’ in Java

JDBC (JavaDataBaseConnectivity)

* Introduction of DBMS and SQL
* Types of Drivers
* Connection Modes
* Statement and PreparedStatement
* ResultSet

GUI using SWING / AWT

* Components
* Event-Delegation-Model
* Listeners
* Layouts
* Individual components JLable, JButton, JCheckBox, JRadioButton,
* JList, JMenu, JTextField, JText Area,Jtable etc.

PROJECT WORK