

• Java' Language –Syllabus(Core+Advanced)

Course Duration (3 Months)

Java Basics

What is Java,History of Java,Features of Java,C++ vs Java,Hello Java Program,Program Internal,How to set path?JDK, JRE and JVM JVM: Java Virtual Machine,Java Variables,Java Data Types,Unicode System,Operators,Keywords.

Control Statements

Java Control Statements,Java If-else,Java Switch,Java For Loop,Java While Loop,Java Do While Loop,Java Break,Java Continue,Java Comments,Java Programs.

Java Class and Object

Java OOPs Concepts, Naming Convention, Object and Class, Method Constructor, static keyword, this keyword

Java Inheritance

Single, multilevel, constructor and inheritance etc.

Java Polymorphism

Method Overloading, Method Overriding, Covariant Return Type, super keyword, Instance Initializer block, final keyword, Runtime Polymorphism, Dynamic Binding,instanceof operator

Java Abstraction

Abstract class, Interface, Abstract vs. Interface

Java Encapsulation

Package, Access Modifiers, Encapsulation

Java Array

Declaration, types, searching, sorting etc.

Java OOPs Misc. topic.

Object class, Math class ,Wrapper Class ,Java Recursion ,Call By Value , Command Line Arg, Object vs Class Overloading vs Overriding

Java String

What is String, Immutable String,String Comparison,String Concatenation,Substring Methods of String classStringBuffer, classStringBuilder class,String vs StringBuffer StringBuffer vs Builder,Creating Immutable classto,String method.

Exception Handling

Java Exceptions, Java Try-catch block,Java Multiple Catch Block,Java Nested try,Java Finally Block,Java Throw Keyword

Java Multithreading

What is Multithreading,Life Cycle of a Thread,How to Create Thread,Thread Scheduler,Sleeping a thread,Start a thread twice,Calling run() method

Java Regex

Java I/O

Input/Output,FileOutputStream,FileInputStream,BufferedOutputStream,BufferedInputStream,SequenceInputStream,StreamByteArray,OutputStreamByteArray,InputStreamDataOutput,StreamDataInput

Java Networking

Networking Concepts, Socket Programming, URL class, URLConnection class, HttpURLConnection, InetAddress class.

Java Applet

Applet Basics,Graphics in Applet,Displaying image in Applet,graphics function drawRect,drawLine etc.

Java AWT & Events Handling

AWT Basics ,Event Handling, AWT Button, AWT Label, AWT TextField, AWT TextArea, AWT Checkbox, AWT CheckboxGroup, AWT Choice, AWT List, AWT Scrollbar, AWT MenuItem & Menu, AWT PopupMenu, AWT Panel, AWT Dialog

Java Layout Manager

FlowLayout,GridLayout,BorderLayout etc.

Java RMI

Java Collections

Collection Framework,Java ArrayList,Java LinkedListArray,List vs LinkedList,Java List Interface,Java HashSet etc.

Java Date and Time

Java Swing

Swing Introduction,Java JButton,Java JLabel,Java JTextField,Java JTextArea,Java JPasswordField,Java JCheckBox,Java JRadioButton,Java JComboBox,Java JTable,Java JList,Java JOptionPane,Java JScrollBar,Java JMenuItem & JMenu,Java JPopupMenu,Java JCheckBoxMenuItem,Java JSeparator

SQL (MySql RDBMS)

Basic command for jdbc ,create ,insert,select,update,delete etc .

Java JDBC

JDBC Introduction, JDBC Driver, DB Connectivity Steps Connectivity ,DriverManagerConnection, Statement, ResultSet, PreparedStatement.

Project Work(2 Project)

1-Project with file handling.

2-Project with JDBC.

Note :- More than 100 programs will be practiced during the course.

Network

Popular Java IDE (Integrated development environment) SOFTWARE

- NetBeans IDE(Recommended)
- Eclipse
- IntelliJ IDEA
- BlueJ
- JDeveloper
- MyEclipse etc.