



# MAHAJAN COMPUTERS

(SunWebTechnologies Pvt. Ltd. ,Chandigarh ,Technology Partners)

The only computer centre in KKR with 20 years exp. PERMANENT Lecturers  
Large No. of B.Tech / MCA Students Cleared Company tests & Interviews.

**(Please Read Conditions Carefully Before Depositing Your Fee. Mahajan Computers Makes No Promises Or Assurances Whatsoever Except Good Teaching Quality.)**

- 1) The Most Detailed & Comprehensive Coverage.
- 2) In order to Avail fully, Students should Work Hard & Try All Assignments.
- 3) Lectures By Anand Mahajan (Ex. Senior Faculty Aptech, NIIT, Ex. Senior Programmer Cupid Softwares). No Outside Hired teachers.
- 4) Avail Guidance and Bonus Classes even after Completion of Course.
- 5) Trial Classes Only For one day.

## Syllabus Of Java Training

### Phase 1: (3 Lectures)

Introduction to Java , JDK , Features of java, typing & execution java application programs , simple java programs & their anatomy, command line arguments as array of ref. to strings ,using javac & java applications, setting path environment variables , control structures , concept of arrays (1-d ,2-d) , final keyword ,Decl. using dynamic memory allocation. , classes & dynamic objects in java , static members , nested & inner classes ,concept of references to instances, methods with & without parameters. Passing & returning an object to & from methods. Reading values from keyboard using Scanner class and BufferedReader class, using Utility package.

### Phase 2: (3 Lectures)

Constructors (with & without arguments), overloaded constructors , this keyword, automatic garbage collection, finalize method, access controls(visibility modes) with regard to packages. Inheritance , dynamic method dispatch, uses of super keyword , method overriding , behaviour of constructors in inheritance, final classes , final methods , abstract classes, abstract methods.

### Phase 3: (4 Lectures)

Concept of packages , classpath environment variable , making folders with the name of packages , multiple packages & same packages examples . The concept of interfaces in java , implementation effect , nested interfaces, extension of interfaces. import statement.

### Phase 4:

Types of errors , runtime errors , unhandled exceptions, using try & catch blocks, , multiple catch blocks, nested try blocks, throwing an exception manually, using throws, finally ,.

### Phase 5:

Multithreading in java , implementing using Runnable interface, extending Thread class, setting & getting Thread priorities , main as a thread, currentThread method, working with multiple threads, isAlive(), join() method. Synchronization, deadlocks, suspending , resuming & stopping threads.

### Phase 6:

Autoboxing , methods , unboxing . Streams , byte streams , character streams, Reading & writing files. String handling, length, concatenation, string conversion toString(), charAt(), equals() vs. equalsIgnoreCase(), startsWith(), endsWith(), comp. between equals & ==. , compareTo(), substring(), concat(), replace(), using valueOf() for data conversion, string vs. StringBuffer class , length vs.

capacity(),setLength(), insert() , reverse(), delete() , deletecharAt(),replace() etc.

#### Phase 7:

Applets basics, life cycle of applet, Applet class & packages java.applet , java.awt, using repaint() & update() , using HTML, sample applet , showStatus() method, passing parameters to applets , using getParameter().

#### Phase 8:

Event handling concept , The delegation event model (events,event sources,event listeners) , importing java.awt.event package , Handling mouse events , keyboard events , concept of adapter classess.

#### Phase 9:

Various AWT controls ,TextField, TextArea, Label, Button , CheckBox ,CheckboxGroup, , Scrollbar , Choice vs. List Controls. Handling all above controls with event Listener interfaces & their methods. Various Layout managers viz.

FlowLayout,BorderLayout,GridLayout,CardLayout,GridBagLayout. Creating Menus & submenus,Dialog boxes.

#### Phase 10:

Concept of swings, life cycle of a swing, Applets vs. swings , using javax.swing package , event handling in swings , using JLabel , JButton , JTextField, JCheckBox, JRadioButton, JTable , JTabbedPane , JTree , JComboBox, JList etc.

#### Phase 11:

concept of JDBC ( Java Database Connectivity) , using MS-Access and MySql as back end RDBMS. Class.forName, Connection interface, DriverManager class & getConnection method ,PreparedStatement interface, Createstatement & ExecuteQuery methods.