

Core Java Syllabus

Basics of Java

- ✓ Java - What, Where and Why?
- ✓ History and Features of Java
- ✓ Internals of Java Program
- ✓ Difference between JDK, JRE and JVM
- ✓ Internal Details of JVM
- ✓ Variable and Data Type
- ✓ Unicode System
- ✓ Naming Convention

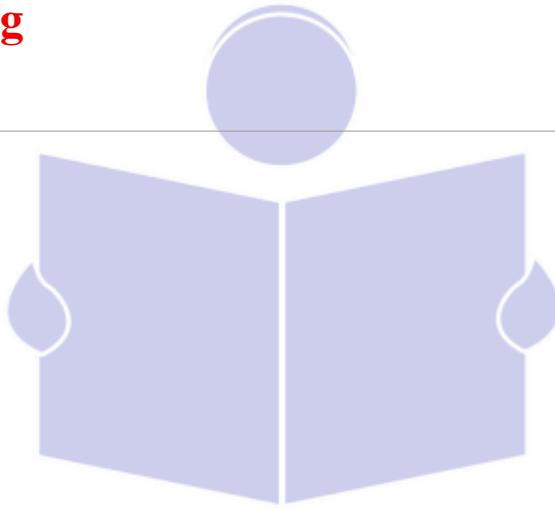
OOPS Concepts

- ✓ Advantage of OOPs
- ✓ Object and Class
- ✓ Method Overloading
- ✓ Constructor
- ✓ static variable, method and block
- ✓ this keyword
- ✓ Inheritance (IS-A)
- ✓ Method Overriding
- ✓ Covariant Return Type
- ✓ super keyword
- ✓ Instance Initializer block
- ✓ final keyword
- ✓ Runtime Polymorphism
- ✓ static and Dynamic binding
- ✓ Abstract class and Interface
- ✓ Package and Access Modifiers
- ✓ Encapsulation
- ✓ Object class
- ✓ Object Cloning

- ✓ Java Array

String Handling

- ✓ String : What and Why?
- ✓ Immutable String
- ✓ String Comparison
- ✓ String Concatenation
- ✓ Substring
- ✓ Methods of String class
- ✓ StringBuffer class
- ✓ StringBuilder class
- ✓ Creating Immutable class
- ✓ toString method



Exception Handling

- ✓ Exception Handling : What and Why?
- ✓ try and catch block
- ✓ Multiple catch block
- ✓ Nested try
- ✓ finally block
- ✓ throw keyword
- ✓ throws keyword
- ✓ Exception Handling with Method Overriding
- ✓ Custom Exception

Nested Classes

- ✓ Nested Class : What and Why?
- ✓ Member Inner class
- ✓ Anonymous Inner class
- ✓ Local Inner class

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- ✓ static nested class
- ✓ Nested Interface

Multithreading

- ✓ Multithreading : What and Why?
- ✓ Life Cycle of a Thread
- ✓ Creating Thread
- ✓ Thread Scheduler
- ✓ Sleeping a thread
- ✓ Joining a thread
- ✓ Thread Priority
- ✓ Thread Pooling
- ✓ Performing multiple task by multiple thread
- ✓ Garbage Collection
- ✓ Runnable class

Synchronization

- ✓ Synchronization : What and Why?
- ✓ synchronized method
- ✓ synchronized block
- ✓ static synchronization
- ✓ Deadlock

Input and output

- ✓ FileOutputStream & FileInputStream
- ✓ ByteArrayOutputStream
- ✓ SequenceInputStream
- ✓ BufferedOutputStream & BufferedInputStream
- ✓ FileWriter & FileReader
- ✓ CharArrayWriter
- ✓ Input from keyboard by InputStreamReader

- ✓ Input from keyboard by Console
- ✓ Input from keyboard by Scanner
- ✓ PrintStream class
- ✓ PrintWriter class
- ✓ Reading and Writing data simultaneously
- ✓ DataInputStream and DataOutputStream

Applet & Graphics

- ✓ Life Cycle of Applet
- ✓ Graphics in Applet
- ✓ Displaying image in Applet
- ✓ Animation in Applet
- ✓ EventHandling in Applet
- ✓ JApplet class
- ✓ Painting in Applet
- ✓ Parameter in Applet
- ✓ Applet Communication

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