



Uttara InfoSolutions Pvt Ltd

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## Java Course Overview

Sl No	Section	Topics	Description
1	Core Java	Intro to Java	Advantages, development methodologies, present state of Java
2	Core Java	OOPs	What makes a language to be called Object Oriented? What are the basic advantages of OOPs vs Procedural
3	Core Java	Classes & Objects	Understanding Encapsulation implementation in Java
4	Core Java	Data types, variables, Parameter passing, constructors	Operators, basics of the language
5	Core Java	JVM Memory model	How JVM uses Stack, Heap, etc
6	Core Java	Inheritance and Constructor chaining, overloading, overriding	Details on Object class usage, its methods, etc
7	Core Java	Abstract classes & Interfaces, Polymorphism	Why, What, When to use? Coding to the interface, adv
8	Core Java	Access specifiers	
9	Core Java	Statics, finals, method/class modifiers	
10	Core Java	OOAD	Basics of how to take a problem to a design - Is-A, Has-A usage and implementation, Composition vs Inheritance, best practices
11	Core Java	Exceptions	
12	Core Java	Collections	Understanding internals, implementing self built Collections, etc
13	Core Java	Java I/O	Understanding Decorator Pattern impl, I/O API
14	Core Java	Threads	What is? How to use? Gothas, lifecycle, Thread Safety, wait() - notify(), common idioms
15	Core Java	Misc	Inner classes, J2SE 5.0 features (Generics, varargs, autoboxing, covariants, enh. for, etc), Design patterns - Singleton, Observer, MVC
16	Core Java	Project	A Core Java project implementation using all the learned concepts