

CORE JAVA FOR BEGINNERS

Course Syllabus



Chapter	Topic	
1	Introduction to Java	
	<ul style="list-style-type: none">• What is Java?• History of Java• Java Platform and its Components• Setting up Java development environment (JDK, IDE)	
2	Getting Started with Java	
	<ul style="list-style-type: none">• Writing Your First Java Program• Compiling and Running Java Programs• Understanding Basic Syntax	
3	Data Types and Variables	
	<ul style="list-style-type: none">• Primitive Data Types• Reference Data Types• Variable Declaration and Initialization• Type Casting	
4	Operators and Expressions	
	<ul style="list-style-type: none">• Arithmetic Operators• Relational and Logical Operators• Assignment Operators• Increment and Decrement Operators	
5	Control Flow Statements	
	<ul style="list-style-type: none">• If-Else Statements• Switch Statements• While and Do-While Loops• For Loops• Break and Continue Statements	
6	Arrays and Strings	
	<ul style="list-style-type: none">• Declaring and Initializing Arrays• Accessing Array Elements• Array Manipulation• Introduction to Strings• String Manipulation Methods	

Chapter	Topic	
7	Methods and Functions	
	<ul style="list-style-type: none"> • Declaring and Calling Methods • Method Parameters and Return Types • Method Overloading • Recursion 	
8	Object-Oriented Programming (OOP) concepts	
	<ul style="list-style-type: none"> • Introduction to OOP Concepts • Classes and Objects • Abstraction, Encapsulation, Inheritance, and Polymorphism • Constructors and Destructors 	
9	Exception Handling	
	<ul style="list-style-type: none"> • Understanding Exceptions • Try-Catch Blocks • Throwing and Catching Exceptions • Finally Block 	
10	Collections Framework	
	<ul style="list-style-type: none"> • Introduction to Collections • ArrayList, LinkedList, HashSet, HashMap • Iterators • Sorting and Searching 	
11	File Handling	
	<ul style="list-style-type: none"> • Introduction to File Handling • Reading from and Writing to Files • File Input/Output Operations 	
12	Introduction to Multithreading	
	<ul style="list-style-type: none"> • Understanding Threads • Creating Threads • Synchronization • Thread Communication 	
13	Introduction to JDBC	
	<ul style="list-style-type: none"> • Overview of JDBC • Connecting to Databases • Executing SQL Queries 	

Course Overview:

The Core Java for Beginners course covers the fundamental topics of Core Java suitable for beginners and could serve as a basis for creating a comprehensive guide. Each chapter will be expanded with explanations, examples, code snippets, and exercises to provide a deeper understanding of Java programming concepts.