# CORE JAVA SYLLABUS

## DAY - 1

**Basic Java Concepts:**
- 00:13 First code in java
- 00:24 How Java Works
- 00:36 Variables in java
- 00:48 Data types in java
- 01:00 Literal
- 01:04 Type conversion
- 01:17 Assignment Operators
- 01:27 Relational Operators
- 01:35 Logical Operators

**Control Flow:**
- 01:46 If Else
- 01:59 If Else if
- 02:05 Ternary
- 02:09 Switch Statement

**Loops:**
- 02:17 Need For Loop
- 02:21 While Loop
- 02:33 Do While Loop
- 02:36 For Loop
- 02:50 Which Loop To Use

**Classes and Objects:**
- 02:51 Class And Object Theory
- 02:57 Class and Object Practical
- 03:13 JDK JRE JVM
- 03:18 Methods
- 03:29 Method Overloading
- 03:35 Stack And Heap

## DAY - 2

**Arrays:**
- 03:48 Need of an Array
- 03:52 Creation of Array
- 03:59 Multi Dimensional Array
- 04:12 Jagged and 3D Array
- 04:18 Drawbacks of Array
- 04:20 Array of Objects
- 04:29 Enhanced for loop

**Strings:**
- 04:35 What is String
- 04:42 Mutable vs Immutable string
- 04:48 StringBuffer and StringBuilder

**Static Members:**
- 04:54 Static variable
- 05:01 Static block
- 05:08 Static method

**Object-Oriented Programming (OOP) Concepts:**
- 05:13 Encapsulation
- 05:25 Getters and setters
- 05:27 this keyword
- 05:37 Constructor
- 05:44 Default vs Parameterized Constructor
- 05:49 this and super method
- 06:01 Naming Convention
- 06:06 Anonymous Object

## DAY - 3

**Inheritance:**
- 06:10 Need of Inheritance
- 06:17 What is Inheritance
- 06:25 Single and Multilevel Inheritance
- 06:29 Multiple Inheritance
- 06:36 Method Overriding

**Packages and Access Modifiers:**
- 06:44 Packages
- 06:56 Access Modifiers

**Polymorphism:**
- 07:04 Polymorphism
- 07:08 Dynamic Method Dispatch
- 07:16 Final keyword
- 07:22 Object Class equals toString hashcode
- 07:34 Upcasting and Downcasting
- 07:41 Abstract keyword

**Inner Classes:**
- 07:53 Inner class
- 07:59 Anonymous Inner class
- 08:04 Abstract and Anonymous Inner class

**Interfaces:**
- 08:07 What is Interface
- 08:15 More on Interfaces
- 08:18 Need of Interface

## DAY - 4

**Enum and Annotations:**
- 08:27 What is Enum
- 08:34 Enum if and switch
- 08:37 Enum Class
- 08:45 What is Annotation
- 08:53 Functional Interface
- 08:56 Lambda Expression
- 09:02 Lambda Expression with return
- 09:06 Types of Interface

**Exception Handling:**
- 09:10 What is Exception
- 09:15 Exception Handling using try-catch
- 09:21 Try with multiple catch
- 09:32 Exception Hierarchy
- 09:36 Exception throw keyword
- 09:42 Custom Exception
- 09:45 Handling Exceptions using throws
- 09:55 User Input using BufferedReader and Scanner
- 10:07 Try with resources

## DAY - 5

**Multithreading:**
- 10:15 Threads
- 10:20 Multiple Threads
- 10:31 Thread Priority and Sleep
- 10:39 Runnable vs Thread
- 10:47 Race Condition
- 11:00 Thread states

**Collections:**
- 11:03 Collection API
- 11:08 ArrayList
- 11:20 Set
- 11:27 Map
- 11:37 Comparator vs Comparable

**Advanced Java:**
- 11:53 Need of Stream API
- 12:00 forEach Method
- 12:05 Stream API
- 12:14 Map Filter Reduce Sorted