

# JAVA LEARNING

11/03/2021 -----  
java + coding , tech

1 Basics of JAVA ( completed)

2 Class, Object, and Types of classes (Completed)

3 Packages in Java (completed)

4 Data Types in Java (completed)

5 Variables, constants, and literals (completed)

6 Methods in Java (completed)

7 Constructor in Java (completed)

8 Modifiers in java (completed)

**This is the my JAVA course**  
**Total 31 Topics**

**my completion of topics**

1. Basics of JAVA ( completed)
2. Class, Object, and Types
3. Packages in Java (completed)
4. Data Types in Java (completed)
5. Variables, constants, and literals
6. Methods in Java (completed)
7. Constructor in Java (completed)
8. Modifiers in java (completed)
9. Static keyword (Completed)
10. Final keyword (i dont su)
11. Inner Class in Java (com

9 Static keyword (Completed)

10 Final keyword (completed)

11 Inner Class in Java (completed)

12 Super and This keywords (completed)

13 OOPs concepts (compelte)

14 Encapsulation (compelte)

15 Inheritance (completed)

16 Polymorphism (completed)

17 Abstraction (completed)

18 Gargabe collection

19 Input Output Stream

20 Collections Framework

21 Serialization

22 Exception Handling in java

23 Java Annotations (completed)

11. Inner Class in Java (com

12. Super and This keyword

13. OOPs concepts (compel

14. Encapsulation (compelte

15. Inheritance (completed

16. Polymorphism (complet

17. Abstraction (completed)

24 Java arrays ( completed)

25 String, String Buffer, String Builder (completed)

26 Reflection in java

27 Java Thread

28	JDBC
29	Agile
30	Design Patterns

31 Database sql???



























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JOGA YOGESH I LOVE JAVA

-----11/04/2022

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urse content and My daily learning Track sheet  
s to cover

**the java topics**

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of classes (Completed)  
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**This is the Daily Taskes**

**with in week to complete  
this task**

- **Java threading**
- **collections**
- **with in the 3 days i want  
complete these topics .**



Completed,  
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# ✓A PROF DEVELOPER

*Chapters and its child Topics*  
*let's start the course, learn.. code with fun,*  
*earn without fear.*

## 1. Basics of Java

Chapter 1 contains the basic introduction to the Java language such as

✓ What is Java?

✓ History and Features of Java

Java Tutorials

Java Introduction +

Basics of Java +

Java Class and Object +

Java Data types and Variables +

Java Operators +

+

Decision Making, Branching,

Looping

Java Packages +  
Java Methods +  
Java Constructor +  
Java Modifiers +  
Blocks in Java +  
Java Static and Final Keywords +  
Inner Classes in Java +  
OOPs Concepts in Java +  
Java Encapsulation +  
Inheritance in Java +  
Java Super and This keywords +  
Java Overloading +  
Java Overriding +  
Java Abstraction +  
Java Polymorphism +  
√ C++ vs Java  
√ Hello Java Program  
√ Internal How to set the path?  
√ JDK, JRE, and JVM (Java Virtual Machine)  
√ JVM Memory Management  
√ Internal details of JVM  
√ Unicode System, Operators, Keywords, and Control Statements like switch, For loop, while loop, etc.

## 2. Class, Object, and Types of classes

Chapter 2 deals with the most important and core concepts of Java. They are:



- ✓ Naming convention of Java
- ✓ Classes, Objects, and Features. It explains how to declare a class, how to create an object in Java.
- ✓ Object declaration and initialization
- ✓ Life cycle of an object
- ✓ Anonymous object in Java

### 3. Packages in Java

Chapter 3 deals with Packages in Java. Under this chapter, we will learn the following topics.

- ✓ How to declare package in a company project
- ✓ Package naming conventions
- ✓ Sub packages
- ✓ Types of packages such as user-defined packages, built-in packages
- ✓ Importing packages in Java

### 4. Data types in Java

This chapter deals with the following topics in Java.

- ✓ Data types in Java
- ✓ Primitive data types
- ✓ Non-primitive data types
- ✓ Memory allocation of primitive and non-primitive data types, etc.

### 5. Variables, Constants, and Literals

Chapter 5 discusses three topics: variables, constants, and literals. You will learn

learn the following subtopics in this chapter.

- ✓ Variable declaration & initialization

Class and Objects in Java with Realtime Example

Packages in Java with Example Programs

Data types in Java

- ✓ Naming convention

- ✓ Types of variables such as local variables, instance variables, and static variables

- ✓ Scope and memory allocation of variables.

## 6. Methods in Java

- ✓ Methods in Java

- ✓ Use of method in Java

- ✓ Method declaration, method signature

- ✓ Types of methods in Java: predefined method, user-defined method  
instance method, static method

- ✓ Calling of method

- ✓ Java main method

- ✓ Return type in Java.

## 7. Constructor in Java

In this chapter, you will familiar with topics like:

- ✓ What is Constructor in Java?

- ✓ Types of constructors: Default and Parameterized constructors

- ✓ Java constructor overloading

✓ Constructor chaining in java

✓ Copy constructor in Java

## 8. Modifiers in Java

This chapter deals with topics like

✓ What is Access modifier and Non-access modifier in Java?

✓ Types of access modifiers like private, default, protected, and public

✓ Types of Non-access modifiers like abstract, final, native, static, Strictly synchronized modifier, transient, volatile.

## 9. Static Keyword

This chapter deals with the following important topics.

✓ What is Static keyword?

Variables in Java | Types of Variables

Java Methods | Declaration & Method Signature

✓ Static variable

✓ Static method

✓ Static block, Instance block

✓ Static Nested Class in Java

✓ Difference between static variable and instance variable, static method and instance method, static block, and instance block.

## 10. Final Keyword

Under this chapter, you will learn three important topics:

- ✓ Final keyword
- ✓ Final variable
- ✓ Final method
- ✓ Final class.

## 11. Inner Class in Java

This chapter deals with the following topics. They are:

- ✓ What is Inner class in Java?, Properties of inner class, Instantiating inner class.
- ✓ Types of inner class in Java: Normal inner class, Method local inner class, Anonymous inner class, and Static nested class.

## 12. Super and this Keyword

This chapter can be partitioned into two sections: Super and This keyword.

The first section discusses with

- ✓ Super keyword
- ✓ Calling of superclass instance variable
- ✓ Superclass constructor
- ✓ Superclass method.

The second section deals with

- ✓ This keyword
- ✓ Calling of current class constructor, and method.

### 13. OOPs concepts

In this chapter, you will learn the most important topic Object-oriented programming system (OOPs). In the OOPs concept, you will learn class, object, encapsulation, inheritance, polymorphism, and abstraction. All are very important for interview purposes.

### 14. Encapsulation

This chapter deals with the following topics in Java.

- ✓ Encapsulation in Java
- ✓ How to achieve Encapsulation
- ✓ Data hiding
- ✓ Tightly encapsulated class
- ✓ Getter and setter method in Java
- ✓ Naming convention of getter and setter method

### 15. Inheritance

This chapter deals with

- ✓ Inheritance in Java
- ✓ Is-A Relationship
- ✓ Aggregation and Composition (HAS-A)
- ✓ Types of inheritance: Single level, Multilevel, Hierarchical, Multiple, Hybrid inheritance.

## 16. Polymorphism

This chapter deals with

- ✓ Polymorphism in Java,
- ✓ Types of polymorphism: Compile-time polymorphism and Run-time polymorphism
- ✓ Static and Dynamic Binding
- ✓ Method overloading
- ✓ Method overriding
- ✓ Rules of method overloading and method overriding, various example programs related to rules of overloading and overriding.
- ✓ Covariant Return type

## 17. Abstraction

In this chapter, you will familiarize with the most important topics in J

- ✓ Abstraction in Java
- ✓ Abstract class
- ✓ Abstract method
- ✓ Interface in Java
- ✓ Nested interface, rules, and example programs.

## 18. Garbage Collection

This chapter deals with garbage collection in Java.

## 19. Input Output Stream

In this chapter, you will learn topics like

- ✓ FileOutputStream, FileInputStream
- ✓ BufferedOutputStream, BufferedInputStream
- ✓ SequenceInputStream
- ✓ ByteArrayOutputStream, ByteArrayInputStream
- ✓ DataOutputStream, DataInputStream
- ✓ Java FilterOutputStream, Java FilterInputStream
- ✓ Java ObjectStream, Java ObjectStreamField
- ✓ Console
- ✓ FilePermissionWriter, Reader, FileWriter, FileReader
- ✓ BufferedWriter, BufferedReader
- ✓ CharArrayReader, CharArrayWriter
- ✓ PrintStream, PrintWriter
- ✓ OutputStreamWriter, InputStreamReader
- ✓ PushbackInputStream, PushbackReader
- ✓ StringWriter, StringReader
- ✓ PipedWriter, PipedReader
- ✓ FilterWriter, FilterReader, File FileDescriptor, RandomAccessFile, and java.util.Scanner.

## 20. Collections Framework

This chapter is one of the most favorite chapters of the interviewer. It with the following important topics like

- ✓ What is Collections Framework?
- ✓ List, Set, SortedSet, Queue, Deque, Map, Iterator, ListIterator, and

Enumeration.

✓ ArrayList, LinkedList, HashSet, LinkedHashSet, TreeSet, ArrayDeque, PriorityDeque, EnumSet, AbstractCollection, AbstractList, AbstractQueue, AbstractSet, and AbstractSequentialList.

✓ Map, Map Entry, SortedMap, and NavigableMap

✓ HashMap, LinkedHashMap, TreeMap, IdentityHashMap, WeakHashMap, EnumMap.

✓ Comparator, RandomAccess interfaces as well as Observable class.

## 21. Serialization

This chapter deals with Serialization, Deserialization, and Java transient keyword.

## 22. Exception Handling in Java

This chapter is very important for any Java technical test or Java technical interview. In this chapter, you will be familiar with

✓ Exception Handling in Java

✓ Try-catch block

✓ Multiple Catch Block

✓ Nested try block

✓ Finally block

✓ Throw Keyword



- ✓ Throws Keyword

- ✓ Throw vs Throws, Final vs Finally vs Finalize

- ✓ Exception Handling with Method Overriding Java Custom Exceptions

## 23. Java Annotations

This chapter deals with Java annotations, Built-In Java annotations like @Inherited, @Documented, Java custom annotations, and types of annotations.

## 24. Reflection in Java

- ✓ Reflection API

- ✓ NewInstance() & Determining the class object

- ✓ Javap tool, Creating javap tool

- ✓ Creating applet viewer

- ✓ Accessing private method from outside the class

## 25. Java Array

This chapter deals with

- ✓ Java Array

- ✓ Types of array: single dimensional array, multidimensional array, declaration, instantiation, and initialization of Java array
- ✓ Passing array to a method
- ✓ Anonymous array in Java
- ✓ Cloning an array in Java

## 26. String, String Buffer, String Builder

This is the most important chapter in the whole core java. It will deal with basically three topics such as

- ✓ String,
- ✓ Immutable String
- ✓ String Comparison, String concatenation
- ✓ Substring
- ✓ StringBuffer class
- ✓ StringBuilder class
- ✓ toString method
- ✓ StringTokenizer class

## 27. Java Thread

- ✓ Java multithreading
- ✓ Multithreading life cycle of a thread creating
- ✓ Thread scheduler

- ✓ Sleeping a thread, Start a thread twice
- ✓ Calling run() method
- ✓ Joining a thread
- ✓ Naming a thread
- ✓ Thread priority,
- ✓ Daemon thread
- ✓ Thread pool
- ✓ Thread group
- ✓ Shutdownhook
- ✓ Java Synchronization: synchronized method, synchronized block, static synchronization
- ✓ Deadlock
- ✓ Inter-thread Communication
- ✓ Interrupting Thread

## 28. JDBC

This chapter deals with

- ✓ JDBC Drivers
- ✓ Steps to connect to Database
- ✓ Connectivity with Oracle
- ✓ Connectivity with MySQL
- ✓ Connectivity with Access without DSN
- ✓ DriverManager
- ✓ Types of JDBC statements: Statement, Prepared statement, Callable statement
- ✓ Database Metadata, Resultset Metadata
- ✓ ResultSet, types of ResultSet,

- ✓ Storing image, Retrieving image
- ✓ Storing file, Retrieving file, Stored procedures, and functions
- ✓ Transaction Management
- ✓ Batch Processing
- ✓ JDBC New Features, Mini Project, and interview questions.

## 29. Agile

In this chapter, you will familiar with

- ✓ Agile model
- ✓ Advantages, and Disadvantages of Agile model
- ✓ Agile versus Waterfall method
- ✓ Important terminology: Scrum, Scrum Master, Flow of Agile Implementation, Sprint, and Burn down Charts.

## 30. Design Pattern

In design pattern chapter, you will learn

- ✓ Singleton Object
- ✓ Singleton design pattern with Serialization

Next ⇒

- ✓ Factory Pattern
- ✓ Abstract Factory.

### 31. Database

Hope that this core java syllabus will help you to know about important java topics. All of these topics are very important for technical tests and interviews.

If you follow and study these topics nicely then you can crack any java technical interview and technical test in 2021.

Thank



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