JUNIOR SOFTWARE DEVELOPER

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TOTAL DURATION: 400 HOURS

I. **THEORY : 100 HOURS**
II. **PRACTICAL: 300 HOURS**

OBJECTIVE

Automation has been in the trend since the last few decades and will continue for few more. Moving a concept from mind to machine is the task of a programmer or developer. It demands good logical, analytical thinking and most importantly programming skills. Junior software developer helps you explore the possibilities of software development using Java and basic HTML. It lays a strong foundation for your career aspiration as a software engineer.

EXIT PROFILE

- ✓ Understanding HTML
- ✓ Program and solve problems using Java
- ✓ Understand the OOP concept

CAREER PATH

- ✓ IT Educator
- ✓ Java Programmer
- ✓ Software Developer
- ✓ Application Creator

STUDENTS' PREREQUISITE

- ✓ 12th pass with good aptitude + Basic computer knowledge

COURSE OUTLINE

- ✓ Computer Basics
- ✓ Programming Logic & Practices
- ✓ HTML
- ✓ Java

MARK DISTRIBUTION

JUNIOR SOFTWARE DEVELOPER						
Subject	Time (In hours)		Total (In hours)	Marks		Total
	Theory	Practical		Theory	Practical	
Computer Basics	13	31	54	10	100	110
Programming Logic & Practices	9	27	36	5	100	105
HTML	27	81	108	15	100	115
Java	48	144	192	20	100	120
Total	100	300	400 hrs	50	400	450

MODULE IN DETAIL

COMPUTER BASICS (54 HOURS)

- ✓ Introduction
- ✓ Evolution of computers
- ✓ Brief history of Computers
- ✓ Generation of computers
- ✓ Classification of computers
- ✓ Organization of Modern Digital Computers
- ✓ Computer Basic Architecture
- ✓ Components of a Computer
- ✓ CPU
- ✓ Memory-Types and Devices
- ✓ Peripherals
- ✓ Cables and Connectors
- ✓ Connecting CPU with Peripherals
- ✓ Software
- ✓ Limitations of Computer
- ✓ Terminology

PROGRAMMING LOGIC & PRACTICES 8 HRS (36 HOURS)

- ✓ Programming logic & practices
- ✓ Introduction to programming
- ✓ Define software
- ✓ The algorithms
- ✓ Flowchart
- ✓ Pseudo code
- ✓ Coding
- ✓ Compiling
- ✓ Documentation and maintenance

HTML (108 HOURS)

- ✓ Introduction of different Web Technology
- ✓ Introduction HTML & DHTML
- ✓ HTML Elements
- ✓ HTML Attributes
- ✓ HTML Headings
- ✓ HTML Paragraphs
- ✓ HTML Formatting
- ✓ HTML Fonts
- ✓ HTML Styles

- ✓ HTML Links
- ✓ HTML Tables
- ✓ HTML Lists
- ✓ HTML Forms
- ✓ HTML Frames
- ✓ HTML Iframes
- ✓ HTML colours
- ✓ HTML Colornames
- ✓ HTML Colorvalues
- ✓ HTML Quick List
- ✓ HTML Layout
- ✓ HTML Doctypes
- ✓ HTML Head
- ✓ HTML Meta
- ✓ HTML Scripts
- ✓ HTML Entities
- ✓ HTML URLs
- ✓ HTML URL Encode
- ✓ HTML Media
- ✓ HTML Audio
- ✓ HTML Object
- ✓ HTML Video
- ✓ HTML YouTube
- ✓ HTML Media Tags
- ✓ HTML Summary

JAVA (192 HOURS)

INTRODUCTION TO JAVA

- ✓ Introduction to java Programming
- ✓ Environmental Setup
- ✓ Java basics

OOPS CONCEPS

- ✓ OOP Terminology
- ✓ Class & Object Creation
- ✓ Built-in Class Attributes
- ✓ Object Destruction.
- ✓ Class Inheritance
- ✓ Function Overloading
- ✓ Data Hiding
- ✓ GUI

FUNCTIONS MODULES, INTERFACES, INHERITANCES & EXCEPTIONS

- ✓ Function Implementation
- ✓ Function Arguments

- ✓ Anonymous Function
- ✓ Function Return
- ✓ Scope of Variables
- ✓ Assertion
- ✓ Handling Exceptions using: try-catch Try with multiple catch
- ✓ User defined Exception

THREAD

- ✓ Multi-Threading
- ✓ Networking
- ✓ Thread operations in java
- ✓ Multithreading in java
- ✓ Synchronization

STRINGS, COLLECTIONS & FILES

- ✓ Introduction to Strings
- ✓ Collections
- ✓ Files

DATABASES & JDBC

- ✓ SQL Queries
- ✓ DML, DDL, DCL
- ✓ Join operations
- ✓ MySQL queries
- ✓ Database Connection