

# JUNIOR SOFTWARE DEVELOPER



# **G-TEC EDUCATION**

ISO 9001:2015 CERTIFIED

**SYLLABUS** 



# JUNIOR SOFTWARE DEVELOPER

#### **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	Marks		Total
	Theory	Practical	(In hours)	Theory	Practical	TOLA
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

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# **MODULE IN DETAIL**

# **COMPUTER BASICS**

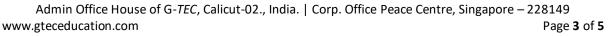
- ✓ Introduction
- ✓ Evolution of computers
- ✓ Brief history of Computers
- ✓ Generation of computers
- ✓ Classification of computers
- ✓ Organization of Modern Digital Computers
- ✓ Computer Basic Architecture
- ✓ Components of a Computer
- ✓ CPU
- ✓ Memory-Types and Devices
- ✓ Peripherals
- ✓ Cables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

# **PROGRAMMING LOGIC & PRACTICES 8 HRS**

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

# **HTML**

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







# (54 HOURS)

(36 HOURS)

(108 HOURS)



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# SYLLABUS

- ✓ 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

# 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







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# SYLLABUS

- ✓ 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

