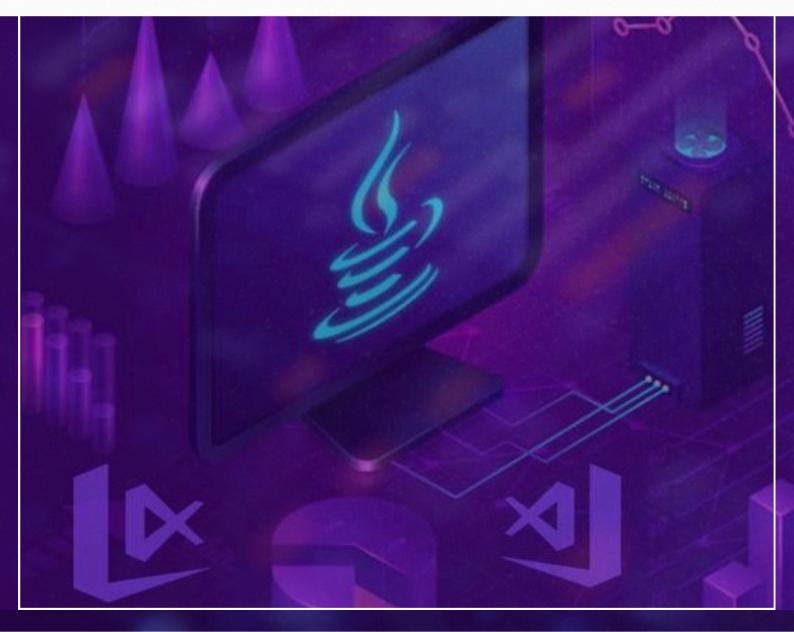# JAVA
FULL STACK

JAVA FULL STACK

About the Course

JAVA

Java Full Stack course is designed for individuals seeking to become Java Developer. Whether you're beginner with no programming skills or someone looking to enhance their skills, this course will take you through the essentials of Java programming and progress to advanced concepts, tools and framework.

CORE JAVA

JAVA INTRODUCTION
- HISTORY
- FEATURES

JAVA BASICS & INTRODUCTION TO ESCLIPS
- POST INTALL CONFIGURATION
- COMPILING AND EXECUTING
- VARIABLES AND ARRAYS
- CREATE PACKAGED CLASSES
- WRITING A SIMPLE PROGRAM
- DATA TYPES
- USING ECLIPSE
- ECLIPSE SHORTCUTS

OPERATORS & EXPRESSIONS
- ARITHMETIC OPERATORS
- BOOLEAN OPERATORS
- LOGICAL OPERATORS
- BINARY OPERATORS

CONTROL STATEMENTS
- BRANCHING STATEMENT
- ITRETIVE STATEMENT
- BREAK & CONTINUE ENHANCEMENTS
- WHILE
- FOR
- DO.. WHILE
- GOTO STATEMENT
- BREAK & CONTINUE STATEMENT

JAVA ORIENTED PROGRAMMING
- BASICS OF OOP
- FUNDAMENTALS OF CLASS & OBJECT
- NEW KEYWORD
- REFERENCE VARIABLE
- MEMBER METHODS OF A CLASS
- CONSTRUCTORS

- FINALIZE METHOD
- OVERLOADING MEMBER METHODS
- OVERLOADING CONSTRUCTORS
- PASSING & RETURNING OBJECTS WITH METHODS
- ACCESS CONTROL
- STATIC METHODS
- STATIC VARIABLE
- STATIC BLOCK
- USING FINAL KEYWORDS
- UNIT TESTING USING JUNIT-5

INHERITANCE
- BASIC OF INHERITANCE
- MEMBERS ACCESSIBLITY IN INHERITANCE
- USING SUPER KEYWORD
- MULTILEVEL INHERITANCE
- CONSTRUCTORS IN INHERITANCE
- METHOD OVERRIDING
- DYNAMIC MATHOD DISPATCH
- ABSTRACT CLASSES
- PREVENTING OVERRIDING
- PREVENTING INHARITANCE

EXCEPTION HANDLING
- FUNDAMENTALS OF EXCEPTIONS
- TYPES OF EXCEPTIONS
- USING TRY AND CATCH KEYWORDS
- MULTIPLE CATCHES
- NESTING OF TRY BLOCKS
- USING THROW KEYWORD
- USING THROWS KEYWOD
- FINALLY BLOCK
- PREDEFINED EXCEPTIONS AND THEIR USAGE
- USER DEFINED EXCEPTIONS

INTERFACES
- PURPOSE OF INTERFACE
- DEFINING AN INTERFACE
- IMPLEMENTING INTERFACES
- INTERFACE REFERENCE VARIABLES
- INTERFACE WITH VARIABLES
- EXTENDING INTERFACES

MULTI THREADED PROGRAMMING
- BASIC OF THREADS
- JAVA THREADED MODEL
- THREADS USING RUNNABLE INTERFACES
- THREADS USING THREAD SUPERCLASS
- MULTIPLE THREADS
- THREAD PRIORITY VALUES
- SYNCHRONIZED METHOD
- SYNCHRONIZED BLOCKS

PREDEFINED LIBRARIES
- USING STRING CLASS
- USING JAVA.LANG PACKAGE
- WORKING WITH DATE & TIME
- UTILITY FRAMEWORK
- COLLECTION FRAMEWORK
- I/O FRAMEWORK

ADVANCED JAVA

JAVA DATABASE CONNECTIVITY (JDBC)
- OVERVIEW OF RDBMS
- INTRODUCTION TO CALL LEVEL INTERFACE(CLI)
- INTRODUCTION TO JDBC
- TYPES OF JDBC DRIVERS
- ESTABLISHING A JDBC CONNECTION
- USING STATEMENT
- USING PREPARED STATEMENT
- USING CALLABLE STATEMENT
- SCROLLABLE AND UPDATABLE RESULT SET
- INSERTING & FETCHING FROM BLOB COLUMNS
- MANAGING TRANSACTIONS IN JDBC
- NEW FEATURES INTRODUCED IN JDBC 3.0
- AUTO INCREMENT COLUMNS

EXTENSIBLE MARKUP LANGUAGE (XML)
- EXTENSIBLE MARKUP LANGUAGE (XML)
- INTRODUCTION TO XML
- DOCUMENT OBJECT MODEL (DOM) USING JAXP

- UNDERSTANDING DOM
- USING DOM IN JAVA
- STAX IN JAVA
- UNDERSTANDING STAX
- PROGRAMMING WITH STAX

COMMON GATEWAY INTERFACE
- INTRODUCTION TO CGI
- UNDERSTANDING ENVIRONMENT VARIABLES
- DISADVANTAGES AND LIMITATIONS OF CGI

JAVA SERVLETS
- SERVLET AS J2EE WEB COMPONENT
- SERVLET AS AN IMPROVED CGI
- SERVLET FUNDAMENTALS / API
- WHAT IS A WEB-CONTAINER
- SERVLET LIFE CYCLE / ARCHITECTURE
- HTTP GET AND POST REQUEST METHODS
- PROCESSING HTML FORMS
- WHAT IS NAME-VALUE PAIR
- CONTENT TYPES AND MIME
- CONFIGURATION OF WEB APPLICATION
- UNDERSTANDING THE DEPLOYMENT DESCRIPTOR (DD) / WEB.XML
- SPECIFYING THE WELCOME FILE LIST
- SERVLET URL PATTERN MAPPING
- INIT PARAMETERS
- STATE MANAGEMENT
- USING HTTP SESSION
- USING COOKIES
- USING APPLICATION

JAVA SERVER PAGES (JSP)
- JSP ARCHITECTURE
- JSP STANDARD / IMPLICIT OBJECTS
- REQUEST
- RESPONSE
- OUT
- CONFIG
- APPLICATION
- SESSION
- PAGE
- PAGE CONTEXT
- EXCEPTION
- JSP PAGE IMPLEMENTATION CLASS
- JSP BASICS & SYNTAX
- JSP DIRECTIVE TAGS
- PAGE DIRECTIVE
- INCLUDE DIRECTIVE

- TAGLIB DIRECTIVE
- JSP ACTION TAGS
- FORWARD ACTION TAG
- INCLUDE ACTION TAG
- JSP SCRIPT RELATED TAGS
- SCRIPTLET TAG
- EXPRESSION TAG
- DECLARATION TAG
- USING JAVA BEANS FROM JSP
- USEBEAN TAG
- SETPROPERTY TAG
- GETPROPERTY TAG
- JSP CUSTOM TAG LIBRARY
- JSP 2.0 TAG FILES
- JSP 2.0 SIMPLE TAG
- EMPTY TAG
- TAG WITH BODY CONTENT
- (JSP FRAGMENT)

JAVABEANS
- JAVABEAN ARCHITECTURE
- JAVABEAN CHARACTERISTICS
- PROVIDING PROPERTIES & METHODS

JSP EXPRESSION LANGUAGE (EL)
- SYNTAX
- USING DIFFERENT SCOPE OBJECTS
- CALLING FUNCTIONS FROM EL

JSP STANDARD TAG LIBRARY (JSTL)
- GENERAL PURPOSE ACTIONS
- CONDITIONAL ACTIONS
- ITERATOR ACTIONS

FILTERS IN WEB APPLICATION
- FILTER BASICS
- FILTER LIFECYCLE
- FILTER CHAINING
- FILTER EXAMPLE

WEB APPLICATION SECURITY
- INTRODUCTION
- DECLARATIVE SECURITY
- PROGRAMMATIC SECURITY
- ROLES
- AUTHENTICATION
- BASIC AUTHENTICATION
- DIGEST AUTHENTICATION
- FORM BASED AUTHENTICATION
- STANDARD LOGIN FORM

- SECURITY CONSTRAINTS
- WEB RESOURCE COLLECTION
- AUTHORIZATION CONSTRAINT

HIBERNATE

HIBERNATE
- INTRODUCTION TO ORM
- HIBERNATE FRAMEWORK OVERVIEW
- MAPPING ENTITIES TO DATABASE TABLES
- OPERATIONS USING HIBERNATE
- INBUILT FUNCTION OF HIBERNATE
- CRITERIA & QUERY
- HQL (HIBERNATE QUERY LANGUAGE)
- SOLVING COMPANY USE CASES
- INTERVIEW QUESTIONS PRACTICE (INDUSTRIAL)

SPRING FRAMEWORK

SPRING FRAMEWORK
- INTRODUCTION TO SPRING
- DEPENDENCY INJECTION
- INVERSION OF CONTROL (IOC)
- SPRING ANNOTATIONS
- DATABASE INTEGRATION WITH SPRING
- (AOP) WITH SPRING
- INTERVIEW QUESTIONS PRACTICE

SPRING BOOT AND MICROSERVICES
- CREATING SPRING BOOT APPLICATIONS
- DEPENDENCY INJECTION
- SPRING BOOT ANNOTATIONS
- AUTO-CONFIGURATION
- STARTER DEPENDENCIES, HTTP METHODS
- SPRING BOOT HIBERNATE INTEGRATION
- BUILDING RESTFUL APIS WITH SPRING BOOT
- SOLVING COMPANY USE CASES
- MICROSERVICES ARCHITECTURE
- CONTROLLER AND REST ENDPOINTS
- RETURNING PLAIN TEXT OR JSON RESPONSES
- API TESTING USING POSTMAN
- APPLICATION.PROPERTIES & CONFIGURATION
- HANDS-ON PRACTICE WITH PROJECT
- INTERVIEW QUESTIONS PRACTICE

MODEL-VIEW-CONTROLLER (MVC) SPRING BOOT
- UNDERSTANDING MVC ARCHITECTURE
- IMPLEMENTING MVC WITH SPRING BOOT
- DEVELOPING WEB APPLICATION
- SEPARATION OF LAYERS: MODELS, VIEWS AND CONTROLLERS
- INTERVIEW QUESTIONS PRACTICE

ORACLE SQL

Introduction To SQL
- Introduction Database
- Understanding DBMS vs RDBMS
- Gone through SQL Standards
- Sub languages of SQL
- Difference between 10g vs 11g vs 12c
- Installation of 12c
- About SQL*Plus and use of developer tool
- Datatypes in Oracle
- Operators in Oracle
- UNDERSTANDING SCHEMA DESIGN AND OBJECTS

Data Retrieval Techniques
- How to use select statement in different ways
- Working with Column alias
- Working with Table alias
- Data filtering and sorting with in single table

Clauses and its types in oracle
- Where clause, Having clause, From clause
- Group by clause, Order by clause, Using clause
- Constraint clause, For update clause

Working With DDL Commands
- Table creation using CREATE statement
- Creating table from another table
- MODULE – 1 MASTERING SQL
- Dropping a table using DROP command
- Altering the column of a table
- Modifying the column datatype in a table
- Renaming the column of a table
- Renaming an entire table
- Using truncate command
- Difference between Delete and Truncate command

Working With DML Commands
- How to copy data from one table to another table?
- How to copy the structure alone from a table?
- Different types of inserting row to an existing table
- Updating any value of with in a record
- Deleting a particular record from a table
- Using merge & insert all command

Integrity Constraints
- How to declare column level constraints?
- How to declare row level constraints ?
- How to add constraints to an existing table?

Types of integrity constraints
- Not null
- Unique key, Primary key
- Referential integrity, Check integrity
- How to enable and disable constraints?
- How to get information about constraints?

Built In Functions
- Understanding Single row functions
- How to use single row functions

Types of single row functions
- String functions, Date functions
- Mathematical functions, Conversion functions
- Special functions, Analytical functions
- Working with multi row functions

Data Aggregation
Working with aggregate function
- Count(), Sum(),Max(), Min(), Avg()
- Working with group by clause
- Working with having clause
- Difference between WHERE and HAVING clause

Importance Of JOIN
- Understanding joins and its uses

Types of joins
- Equi join, Non – equi join
- Self join, Outer join
- Left & Right outer join
- Full outer join, Cross join

Set Operators And Pseudo Columns:
How to use set operators in a single table content?
Working with set operator types

- UNION
- UNION ALL
- INTERSECT
- MINUS

Working with pseudo columns using the following

- ROWID
- ROWNUM

Sub Queries
Importance of sub queries
Using different types of sub queries

- Single row sub queries
- Multi row sub queries
- Nested queries
- Multi column sub queries
- Correlated sub queries
- Using inline views and scalar queries

Database Transaction And Security

- Working with data query language using TCL
- Working with data control language commands
- Use of commit and rollback
- Use of savepoint and set transaction
- How to give system privileges to an user?
- How to invoke and revoke object privileges?
- How to create users and roles?

Design Of Schema Objects

- Creating and working with Views
- Working with Synonyms
- Creating Index and clusters
- Working with in materialized view
- Understanding sequences and its types

MongoDB

CRUD OPERATIONS USING MONGODB

- INSTALLING MONGODB
- CONNECTING TO MONGODB
- SCHEMAS
- MODELS
- SAVING A DOCUMENT
- QUERYING DOCUMENTS
- COMPARISON QUERYOPERATORS
- LOGICAL QUERYOPERATORS
- REGULAR EXPRESSIONS
- COUNTING
- PAGINATION
- UPDATING DOCUMENTS- QUERY FIRST
- UPDATING A DOCUMENT- UPDATEFIRST
- REMOVING DOCUMENTS

MONGOOSE - DATA VALIDATION

- VALIDATION
- BUILT-IN VALIDATORS
- CUSTOM VALIDATORS
- ASYNC VALIDATORS
- VALIDATION ERRORS
- SCHEMATYPE OPTIONS

MONGOOSE- MODELLING RELATIONSHIPS

- REFERENCING DOCUMENTS
- POPULATION
- EMBEDDING DOCUMENTS
- USING AN ARRAY OF SUB-DOCUMENTS
- TRANSACTIONS
- OBJECT ID
- VALIDATING OBJECT ID'S

AUTHENTICATION AND AUTHORIZATION

- INTRODUCTION
- CREATING THE USER MODEL
- REGISTERING USERS
- USING LODASH
- HASHING PASSWORDS
- AUTHENTICATING USERS
- TESTING THE AUTHENTICATION
- JSON WEB TOKENS
- GENERATING AUTHENTICATION TOKENS
- STORING SECRETS
- SETTING RESPONSE HEADERS
- ENCAPSULATING LOGIC IN MONGOOSE
- AUTHORIZATION MIDDLEWARE
- PROTECTING ROUTES
- GETTING THE CURRENTUSER

- LOGGING OUT USERS
- ROLE BASED AUTHORIZATION
- TESTING THE AUTHORIZATION

HANDLING AND LOGGING ERRORS

DEPLOYMENT
- INTRODUCTION
- PREPARING THE APP FOR PRODUCTION
- GETTING STARTED WITH HEROKU
- PREPARING THE APP FOR DEPLOYMENT
- ADDING THE CODE TO A GIT REPOSITORY
- DEPLOYING TO HEROKU
- VIEWING LOGS
- SETTING ENVIRONMENT VARIABLES
- MONGODB IN THE CLOUD

HTML

HTML BASICS
- HTML INTRODUCTION
- HTML DOCUMENT STRUCTURE
- HTML SYNTAX

TEXT FORMATTING
- HEADINGS
- LINE BREAKS & HORIZONTAL RULES
- PARAGRAPHS
- ALL BASIC TAGS

LISTS
- ORDERED LISTS
- UN-ORDERED LISTS
- LIST ITEMS

LINKS AND ANCHORS
- HYPERLINKS
- URLS & PATHS
- LINK TEXT
- LINK TARGETING

MARQUEE ELEMENT
- ELEMENT INTRODUCTION & ATTRIBUTES
- CREATING SCROLLABLE TEXT & IMAGES

IMAGES
- IMAGE TAG
- IMAGE SOURCE (SRC ATTRIBUTE)
- IMAGE DIMENSIONS
- ALT TEXT (ALT ATTRIBUTE)

CSS LINKING
- LINKING EXTERNAL CSS

FORMS
- FORM TAG
- INPUT FIELDS
- TEXTAREAS
- SELECT MENUS

DIV AND SPANS
- BLOCK-LEVEL ELEMENTS
- INLINE ELEMENTS

IFRAME
- EMBEDDING VIDEOS
- EMBEDDING MAPS
- EMBEDDING SOCIAL MEDIA FEEDS
- DISPLAYING EXTERNAL CONTENT
- DISPLAYING ADVERTISEMENTS

HTML COMMENTS
- ADDING COMMENTS

CSS

INTRODUCTION TO CSS
- WHAT IS CSS AND ITS ROLE IN WEB DEVELOPMENT
- INLINE, INTERNAL, AND EXTERNAL CSS
- CSS SYNTAX AND BASIC STRUCTURE

CSS SELECTORS & PROPERTIES
- WHAT IS CSS AND ITS ROLE IN WEB DEVELOPMENT
- INLINE, INTERNAL, AND EXTERNAL CSS
- CSS SYNTAX AND BASIC STRUCTURE

CSS BORDERS
- EXPLORING DIFFERENT BORDER STYLES
- ADJUSTING BORDER WIDTH AND COLOR
- CREATING DECORATIVE BORDERS
- ADDING ROUNDED CORNERS TO ELEMENTS

CSS MARGINS AND PADDING
- EXPLORING MARGIN PROPERTIES
- SETTING MARGINS FOR INDIVIDUAL SIDES
- USING SHORTHAND MARGIN NOTATION
- CREATING SPACING BETWEEN ELEMENTS
- COMBINING MARGIN AND PADDING

CSS FONTS
- CUSTOMIZING TEXT STYLES WITH FONT PROPERTIES
- CHOOSING FONT FAMILIES & FONT STACKS
- ADJUSTING FONT SIZE, WEIGHT, STYLE AND COLOR

CSS TABLES
- STYLING HTML TABLES AND THEIR ELEMENTS
- SETTING BORDERS AND SPACING FOR TABLE CELLS
- ALTERNATING ROW COLORS FOR BETTER READABILITY

CSS BACKGROUND & IMAGES
- SETTING BACKGROUND COLOR AND IMAGES
- CONTROLLING BACKGROUND REPEAT & POSITION
- CREATING IMAGE GALLERIES WITH CSS

JAVA SCRIPT

INTRODUCTION TO JAVASCRIPT
- INTRODUCTION TO JAVASCRIPT
- ROLE IN WEB DEVELOPMENT
- SETTING UP A HTML FILE & ADDING JAVASCRIPT
- VARIABLES, DATA TYPES, AND BASIC OPERATIONS
- CONTROL STRUCTURES: IF STATEMENTS & LOOPS
- INTRODUCTION TO FUNCTIONS AND THEIR USAGE

VARIABLES AND DATA TYPES
- DECLARING VARIABLES
- PRIMITIVE DATA TYPES

CONTROL FLOW
- CONDITIONAL STATEMENTS (IF, ELSE IF, ELSE)
- SWITCH STATEMENTS
- LOOPS (FOR, WHILE ,DO...WHILE)
- BREAK AND CONTINUE STATEMENTS

FUNCTIONS
- DECLARING FUNCTIONS
- PARAMETERS AND ARGUMENTS
- RETURN STATEMENTS

DOM MANIPULATION
- INTRODUCTION TO THE (DOM)
- SELECTING AND MODIFYING DOM ELEMENTS

USING POPUP BOXES
- ALERT BOXES
- CONFIRM BOXES
- PROMPT BOXES

ANGULAR

WHAT IS ANGULAR?
- ANGULAR VERSION HISTORY
- ARCHITECTURE OF ANGULAR APPS
- SETTING UP THE ENVIRONMENTAL SETUP
- STRUCTURE OF ANGULAR PROJECTS
- CREATING COMPONENTS MANUALLY
- CREATING COMPONENTS THROUGH CMD
- STRING INTERPOLATION

DATA BINDING, HANDLING EVENTS & DIRECTIVES
- STRING INTERPOLATION VS PROPERTY BINDING
- PROPERTY BINDING
- EVENT BINDING - (CLICK), (CHANGE), (KEYUP), (KEYDOWN) MOUSE EVENTS
- TWO-WAY BINDING
- DIRECTIVES
- STRUCTURAL DIRECTIVES (NGIF, NGIF ELSE, NGFOR)
- NGSTYLE
- NGCLASS

DCOMPONENT INTERACTION, IO PROPERTIES, PIPES, SERVICES & DEPENDENCY INJECTION
- **COMPONENT INTERACTION**
  @INPUT() AND @OUTPUT() DECORATORS
- **PIPES**
  INBUILT PIPES CREATING CUSTOM PIPES
  @PIPE DECORATOR

HTTP SERVICES AND OBSERVABLES
- WHAT IS A SERVICE?
- DEPENDENCY INJECTION IN ANGULAR
- INTRODUCTION TO HTTP
- ERROR HANDLING
- INTRODUCTION TO OBSERVABLES
- INJECTABLE DECORATOR
- CONNECTING TO THE BACKEND
- USING HTTP SERVICES

1. CRUD OPERATIONS WITH HTTP
- GET, POST, PUT, DELETE

ROUTING IN ANGULAR
- WHAT IS ROUTING?
- CONFIGURING ROUTES
- USING THE ROUTER-OUTLET TAG
- ROUTING USING ROUTER-LINK DIRECTIVE
- PROGRAMMATIC ROUTING
- SENDING DATA THROUGH ROUTING
- LAZY LOADING CONCEPTS

BOOTSTRAP AND TEMPLATE-DRIVEN FORMS
- OVERVIEW OF BOOTSTRAP
- BOOTSTRAP GRID SYSTEM
- USING THE FORM CONTROL CLASS
- VALIDATION OF TEMPLATE-DRIVEN FORMS
- NGFORM DIRECTIVE
- NGVALUE DIRECTIVE
- NGSUBMIT DIRECTIVE
- FORMCONTROL

OUR TOP PLACEMENT PARTNERS

ABOUT INNOZANT

Innozant Infotech Pvt Ltd is most rapidly growing Hybrid Training Institute for Data Analytics , Data Science Digital Marketing and Web Development. We provide the best available tailor-made course content as per current industry needs ,which helps in enhancing the technical skills which are beneficial for all the job seekers. Whether you're a beginner or a professional seeking to upskill , Innozant provides a supportive environment to help you unlock your full potential.

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