

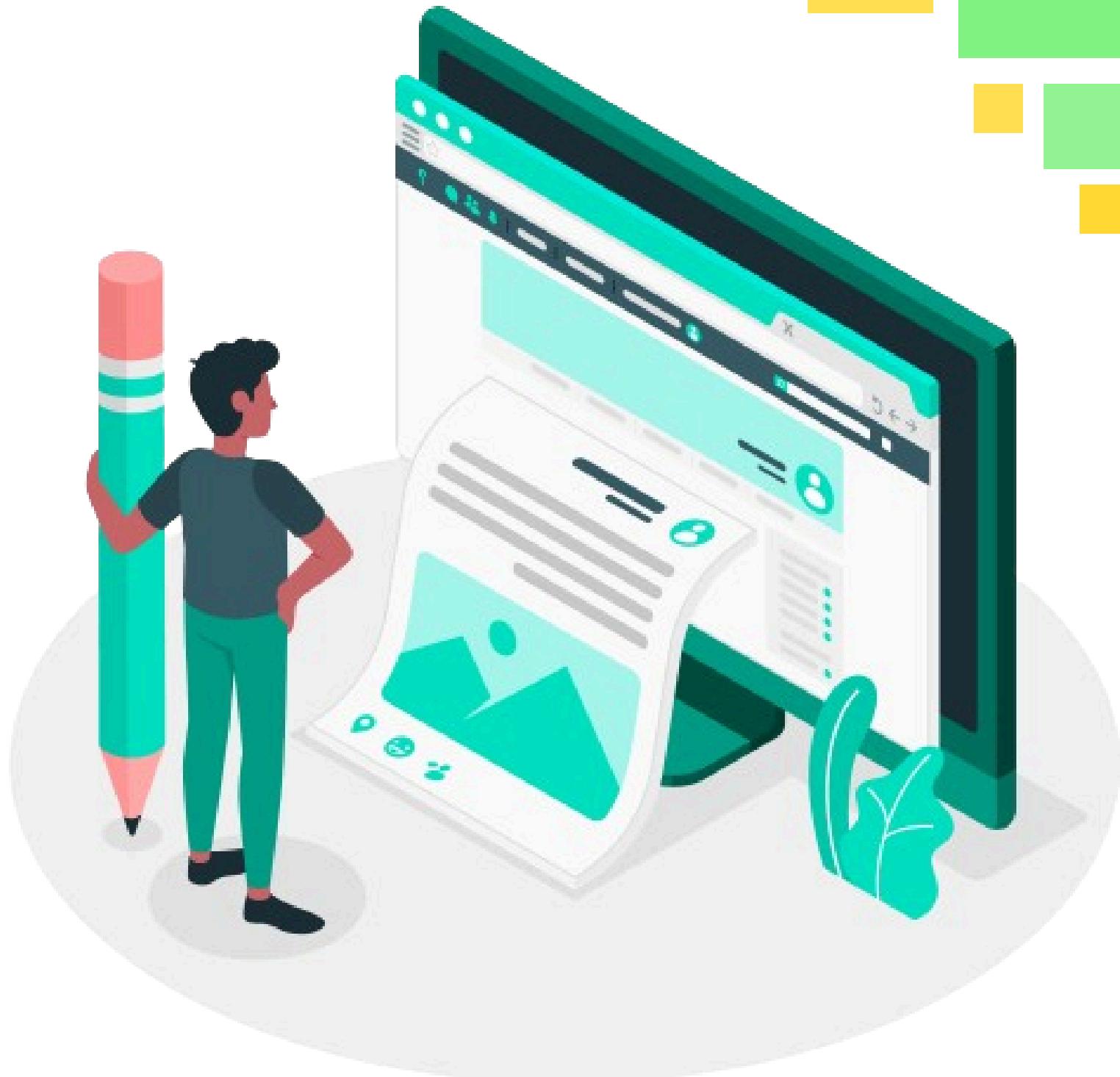


Java Development



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About Us



Welcome to Codveda Technology, where innovation meets excellence. Founded with a vision to empower businesses through cutting-edge IT solutions, we specialize in delivering tailored services that drive success in the digital era.

At Codveda, we offer a diverse range of services, including web development, app development, digital marketing, SEO optimization, AI/ML automation, and data analysis.

Our team of skilled professionals is committed to helping businesses unlock their full potential by providing innovative, scalable, and reliable solutions.

INSTRUCTIONS



- Update your LinkedIn profile with your achievements, including the offer letter and completion certificate. Mention and tag [@Codveda](#) in your posts.
- Use hashtags like [#CodvedaJourney](#), [#CodvedaExperience](#), and [#FutureWithCodveda](#) to showcase your progress and experiences.
- Share your project completion updates on LinkedIn, accompanied by a video explanation and the GitHub project repository link.
- You will be provided with four tasks. Select and complete any three tasks within your domain to fulfill the internship requirements.
- Submit your completed tasks via the Codveda submission form. Ensure all tasks are submitted within the allocated 15-day period.
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SUBMISSION



- Create a professional video showcasing your internship projects and achievements.
- Host the video on LinkedIn to provide proof of your work and establish credibility among your peers. Consider tagging Codveda Technology in your posts to ensure they are notified of your work using hashtags like **#CodvedaAchievements** and **#CodvedaProjects**.
- A **SUBMISSION FORM** will be shared later. Till then, please continue your tasks and maintain a separate file for each level.
- When posting the video on LinkedIn, include engaging content that highlights your contributions and skills. Tailor the post to your specific internship domain to maximize impact and visibility.

Level 1 (Basic)



Task 1: Basic Calculator

- Description: Write a simple Java console application that performs basic arithmetic operations (addition, subtraction, multiplication, division).

Objectives:

- Create a class with methods for each arithmetic operation.
- Take input from the user for numbers and the desired operation.
- Handle edge cases like division by zero.

Level 1 (Basic)



Task 2: Simple Number Guessing Game

- Description: Develop a number guessing game where the program generates a random number, and the user has to guess it.

Objectives:

- Use Java's Random class to generate a random number.
- Give feedback to the user (e.g., "too high," "too low").
- Limit the number of attempts and handle invalid inputs.
- Skills Covered: Random number generation, loops, conditional statements

Level 1 (Basic)

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Task 3: Factorial Calculation using Recursion

- Description: Write a recursive function to compute the factorial of a number.

Objectives:

- Implement a recursive method to calculate factorial.
- Ensure the program handles edge cases like factorial of 0 and negative numbers.

Level 2 (Intermediate)



Task 1: Employee Management System

- Description: Create a basic Employee Management System with CRUD functionality (Create, Read, Update, Delete) using Object-Oriented Programming.

Objectives:

- Define an Employee class with fields like name, ID, salary, etc.
- Implement methods for adding, viewing, updating, and deleting employee records.
- Store employee data in an in-memory collection (e.g., ArrayList).

Level 2 (Intermediate)



Task 2: File Handling - Reading and Writing to a File

- Description: Write a program that reads data from a file, processes it, and writes the output to another file.

Objectives:

- Read a text file and process the content (e.g., count words, lines).
- Write the processed data (e.g., word count) to a new file.
- Handle file-related exceptions like `FileNotFoundException`.

Level 2 (Intermediate)



Task 3: Simple Banking Application

- Description: Build a simple banking system where users can deposit, withdraw, and check their balance.

Objectives:

- Create a BankAccount class with methods for deposit, withdraw, and check balance.
- Implement basic error handling (e.g., insufficient funds).
- Simulate user interactions with the system via the console.

Level 3 (Advanced)



Task 1: Library Management System with JDBC

- Description: Develop a Library Management System using Java and JDBC for database connectivity. The system should allow adding, borrowing, and returning books.

Objectives:

- Set up a database (e.g., MySQL) with tables for Books, Users, and Transactions.
- Implement CRUD operations using JDBC for managing books and users.
- Handle transactions when books are borrowed or returned.

Level 3 (Advanced)



Task 2: Multithreaded Chat Application

- Description: Create a console-based chat application that allows multiple users to chat with each other via multithreading.

Objectives:

- Implement server and client classes using Java Sockets for networking.
- Use threads to manage multiple clients simultaneously.
- Broadcast messages from one client to all connected clients.

Level 3 (Advanced)



Task 3: Binary Search Tree (BST) Implementation

- Description: Implement a Binary Search Tree in Java with functionalities like insertion, deletion, search, and traversal (in-order, pre-order, post-order).

Objectives:

- Create a TreeNode class to represent nodes of the tree.
- Implement methods to insert, delete, and search nodes.
- Perform in-order, pre-order, and post-order traversals of the tree.



How to Contact Us?

For additional information, kindly get in touch with our team.



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