# PROJECT DOCUMENTATION

## CODECLAUSE INTERNSHIP

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| **Project ID –** #CC5253 |
| **Project Title –** To-Do List Application |
| **Internship Domain –** Java Development Intern |
| **Project Level –** Entry Level |
| **Assigned By–** CodeClause Internship |
| **Assigned To–** Manish Maharana |

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| **Start Date –** 01 Jun 2024 | **End Date –** 30 Jun 2024 |

# Project Details-

## Aim -

Develop a simple to-do list application where users can add, edit, and remove tasks.

## Description-

Implement a console-based to-do list application that supports adding, editing, and deleting tasks.

## Technologies-

Java
You can use other technologies that you know.

## What You Learn-
Basic task management, user input handling.

| Project ID - #CC5254 |
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| **Project Title -** Employee Management System |
| **Internship Domain -** Java Development Intern |
| **Project Level -** Intermediate Level |
| **Assigned By-** CodeClause Internship |
| **Assigned To-** Manish Maharana |

| **Start Date -** 01 Jun 2024 | **End Date -** 30 Jun 2024 |
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# Project Details-

## Aim -

Create an employee management system to handle employee details, payroll, and attendance.

## Description-

Develop a Java application that supports CRUD operations for employee data, payroll calculations, and attendance tracking.

## Technologies-

Java, JavaSwing for UI, Database (e.g., MySQL) for data storage.
You can use other technologies that you know.

## What You Learn-
UI enhancements, database operations, employee management.

| Project ID – #CC5256 |
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| **Project Title –** Face Authentication System |
| **Internship Domain –** Java Development Intern |
| **Project Level –** Golden Level |
| **Assigned By–** CodeClause Internship |
| **Assigned To–** Manish Maharana |

| Start Date – 01 Jun 2024 | End Date – 30 Jun 2024 |
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# Project Details–

## Aim –

Implement a secure face authentication system using Java with features like user registration, face enrollment, and subsequent authentication.

## Description–

Build a Java application that allows users to register by enrolling their facial features. Develop algorithms for capturing, storing, and recognizing facial patterns. Implement a secure login system that verifies the user's identity through facial recognition.

## Technologies–

Java, OpenCV for face detection and recognition, Java Swing/ Java Fxfor UI, File I/O for storing facial features.
You can use other technologies that you know.

## What You Learn–
Image processing with OpenCV, JavaFX for UI design, File handling for storing and retrieving facial features, Basics of biometric authentication.

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| **Project ID – #CC5256** | |
| **Project Title –** Virtual Private Network (VPN) Implementation in Java | |
| **Internship Domain –** Java Development Intern | |
| **Project Level –** Golden Level | |
| **Assigned By–** CodeClause Internship | |
| **Assigned To–** Manish Maharana | |

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|---|---|
| **Start Date –** 01 Jun 2024 | **End Date –** 30 Jun 2024 |

# Project Details–

## Aim –

Develop a simple VPN application in Java to create a secure, encrypted communication channel over the internet.

## Description–

Build a Java-based VPN system that allows users to establish a secure connection between two computers. Implement encryption and decryption algorithms to secure the data transmitted over the network. Provide functionalities for key exchange and secure communication.

## Technologies–

Java for application development, Encryption algorithms (e.g., AES), Socket programming for network communication.
You can use other technologies that you know.

## What You Learn–

Understanding VPN protocols, Java socket programming, Encryption techniques, Secure communication principles.

# Instructions-

1. There are no technology restrictions for project development. You are free to use any technology you are familiar with..

2. Ensure timely submission of projects before the deadlines.

3. There are no restrictions on completing entry-level and intermediate projects.

4. Avoid copying and pasting code. Be original in your submissions.

5. Upon completion, submit your all projects on app.internship.codeclause.com.

# Eligibility Criteria:

1. Completion of one project makes you eligible for a certificate.

2. Completion of two projects (entry-level and intermediate) qualifies you for a certificate and Letter of Recommendation (LoR).

3. Completion of two projects (entry-level and intermediate) with one golden project makes you eligible for swags verification.

4. It only eligibles to you for swags verification it doesn't means that you are eligible for swags.

5. There are two golden projects you need to do any of them.

6. There is not technology restrictions for projects.

7. If project found copied then you are eligible for swgas.

8. If golden project needs to be dynamic and proper working.

9. Console based projects are not eligible for swags. Proper Ui is required to eligible for swags.

10. Needs to post video of demo of golden project on LinkedIn and it should includes only the output of project no need to share the code.