

C++ Programming Tasks & Instructions — CodeAlpha

C++ Programming — Internship Overview

This internship program offers hands-on experience in **C++ programming** and software development. CodeAlpha is a leading software development company committed to innovation, performance, and scalable solutions. The internship empowers students to master core **C++ concepts**, develop efficient algorithms and build high-performance applications. Interns will gain practical skills in memory management, object-oriented programming and debugging with expert mentorship and opportunities to contribute to real-world projects in a collaborative environment.

Internship Perks

- Internship Offer Letter
 - Completion Certificate (QR Verified)
 - Unique ID Certificate
 - Letter of Recommendation (based on performance)
 - Job Opportunities / Placement Support
 - Resume Building Support
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Instructions for Interns




1. Share your internship status on **LinkedIn**, tagging **@CodeAlpha**.
 2. Complete the **assigned projects** within the mentioned time frame.
 3. Upload your complete source code to **GitHub** in a repository named:
`CodeAlpha_ProjectName`
 4. Post a **video explanation** of your project on LinkedIn with GitHub repo link.
 5. Submit your completed task using the **Submission Form**.
 6. **Complete any 1 out of the 2 tasks** listed below (from your domain).
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C++ Programming Task List

(Complete any 1 of the following tasks)

TASK 1: TO-DO LIST APPLICATION

Objective: Build a **console-based task manager** where users can:

-  **Add tasks**
-  **Mark tasks as completed**
-  **View pending/completed tasks**

Features:

- Task categorization (optional)
- File handling to save/load tasks

Concepts Used:

Classes, Vectors, File I/O, Conditionals, Loops

✅ TASK 2: EBASIC FILE ENCRYPTION/DECRYPTION

Objective: Create a program that **encrypts and decrypts text files**.

Algorithm: Use simple methods like:

- **Caesar Cipher** (shift characters by a fixed number)
- Or any custom character replacement logic

Features:

- Choose file to encrypt/decrypt
- Save the output to a new file

Concepts Used:

File Streams, Strings, Loops, Basic Encryption Logic



Important Note

To be eligible for the internship certificate, participants must complete the **first task**.

📌 **Submission of the first task is compulsory.** If the first task is not submitted, certificate generation may not be possible.

Please complete and submit your first task carefully using the official submission form.



Submission Details

A submission form will be shared in your respective **WhatsApp group**. You are required to submit your completed task only through that form. Please follow the instructions mentioned in the form carefully to ensure your submission is accepted.



Contact Information

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