

Python Programming Tasks & Instructions — CodeAlpha

Python Programming — Internship Overview

This internship program provides hands-on experience in Python development and scripting. CodeAlpha is a leading software development company focused on building scalable and efficient software solutions. The internship empowers students to master Python fundamentals, data structures, file handling, and OOP concepts, while also exploring libraries like Pandas, NumPy, Flask and more. Interns will work on real-world projects such as automation scripts, web applications, and data processing tools. With expert mentorship and practical assignments, interns will strengthen their problem-solving skills and become proficient in Python programming.

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 stat us 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 3 or 2 out of the 4 tasks** listed below (from your domain).
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Python Programming Task List

(Complete any 2 or 3 of the following tasks)

TASK 1: Hangman Game

Goal: Create a simple text-based Hangman game where the player guesses a word one letter at a time.

Simplified Scope:

- Use a small list of 5 predefined words (no need to use a file or API).
- Limit incorrect guesses to 6.
- Basic console input/output — no graphics or audio.

Key Concepts Used: `random`, `while` loop, `if-else`, `strings`, `lists`.

✓ TASK 2: Stock Portfolio Tracker

- **Goal:** Build a simple stock tracker that calculates total investment based on manually defined stock prices.
 - **Simplified Scope:**
 - User inputs stock names and quantity.
 - Use a hardcoded dictionary to define stock prices (e.g., `{"AAPL": 180, "TSLA": 250}`).
 - Display total investment value and optionally save the result in a `.txt` or `.csv` file.
 - **Key Concepts Used:** `dictionary`, `input/output`, `basic arithmetic`, `file handling` (`optional`).
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✓ TASK 3: Task Automation with Python Scripts

Goal: Automate a small, real-life repetitive task.

Pick One of These Ideas:

- Move all `.jpg` files from a folder to a new folder.
- Extract all email addresses from a `.txt` file and save them to another file.
- Scrape the title of a fixed webpage and save it.

Key Concepts Used: `os`, `shutil`, `re`, `requests`, `file handling`.

✓ TASK 4: Basic Chatbot

Goal: Build a simple rule-based chatbot.

Scope:

- Input from user like: `"hello"`, `"how are you"`, `"bye"`.
- Predefined replies like: `"Hi!"`, `"I'm fine, thanks!"`, `"Goodbye!"`.

Key Concepts Used: `if-elif`, `functions`, `loops`, `input/output`.



Important Note

Internship Completion Criteria:

To be eligible for the internship certificate, participants must complete a minimum of **two or three tasks**. Submitting only one task will be considered **incomplete** and certificates will **not** be issued in such cases.



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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