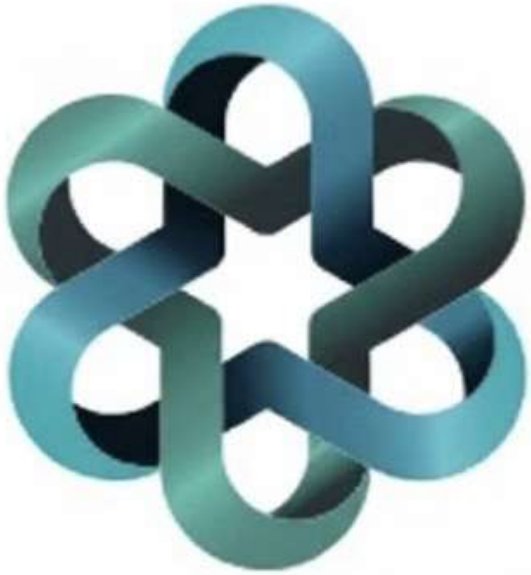


SkillBuildEra

Project Timeline: One Project, One Week

Efficiently manage your project development cycle by dedicating a focused week to each core project.

1

Day 1-2: Planning & Design

Define project scope, sketch out user interface designs, and plan database schemas and API endpoints. Create wireframes and mockups to visualize the final product.

2

Day 3-4: Frontend Development

Build the user-facing part of the application using HTML, CSS, and JavaScript. Implement responsive design principles to ensure compatibility across various devices and screen sizes.

3

Day 5: Backend Development

Set up the server, develop API endpoints for data exchange, and integrate with the chosen database. Focus on robust data handling and security protocols.

4

Day 6: Testing & Debugging

Thoroughly test all functionalities, identify and resolve bugs, and ensure the application runs smoothly. Conduct user acceptance testing (UAT) to gather feedback.

5

Day 7: Deployment & Review

Deploy the project to a live server, make it accessible to users, and gather initial feedback. Document the development process and plan for future iterations or enhancements.

Internship Instructions

At SkillBuildera, we believe in learning by doing. During your internship, you will work on practical, real-world tasks that help you build strong technical and professional skills while showcasing your growth as a learner and future professional.

Important Guidelines:

1. **Official Start**

   Begin tasks only after your internship officially starts, as indicated in your Offer Letter email.

2. **Domain Focus**

   Complete tasks exclusively within your selected domain, as specified in your offer letter.

3. **Certificate Eligibility**

   A minimum of 4 completed tasks in your track is mandatory for the Internship Completion Certificate.

4. **Learning Approach**

   This is a self-paced, learning-oriented internship with no live training; utilize your own resources.

5. **Flexible Schedule**

   Manage your working hours flexibly, ensuring all assigned tasks are completed on time.

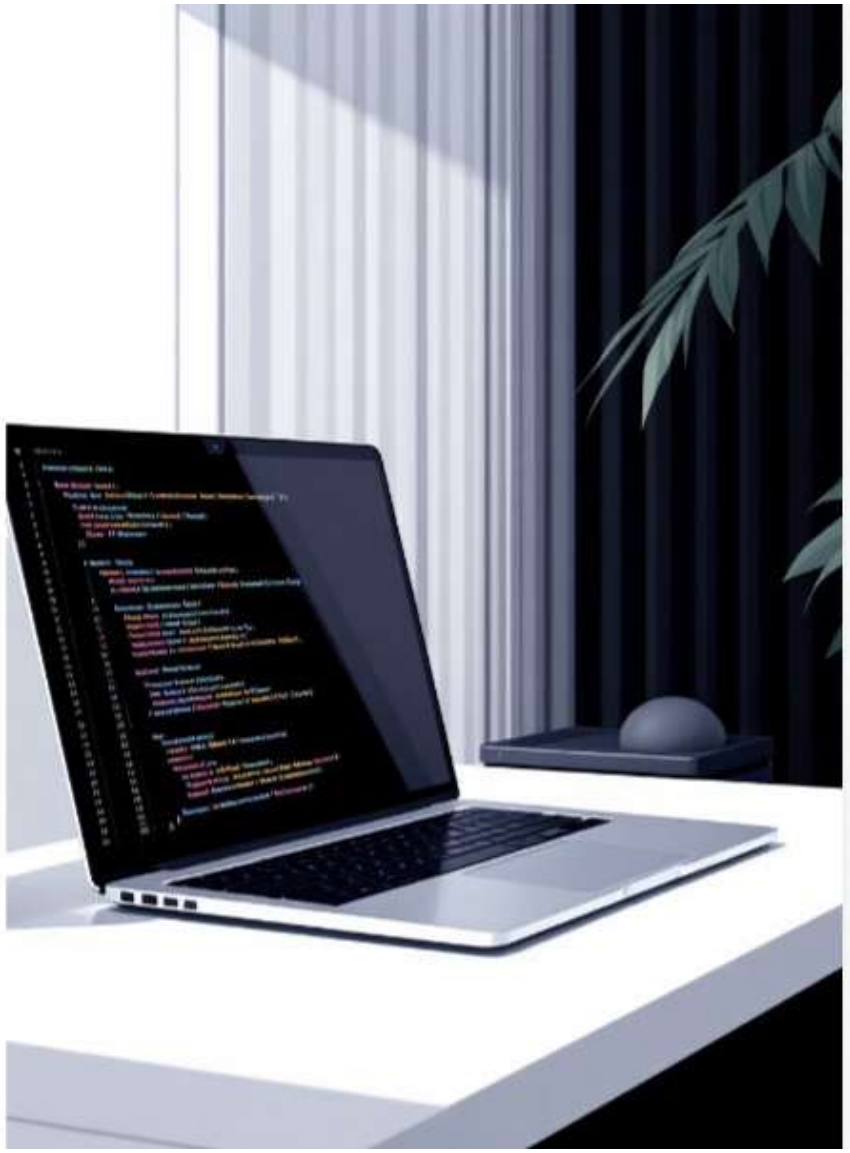
intern instruction

1. Be on time and professional
2. Follow instructions and ask questions
3. Complete tasks responsibly
4. Respect rules and confidentiality
5. Communicate with your supervisor

Exploring Python Through 5 Practical Projects

Discover the power of hands-on learning by building real-world applications that matter.

SkillBuildera



Project 1: Password Generator

Core Function

Generates strong, random passwords with customisable length and character sets including uppercase, lowercase, digits, and special symbols.

Key Learnings

Master Python's **random** module, string manipulation techniques, and user input validation for secure password creation.

Real-World Impact

Enhances personal and organisational security by creating passwords resistant to brute-force attacks and common hacking methods.

Project 2: Expense Tracker

01

Log Expenses

Users can easily add daily expenses with categories, amounts, and dates for comprehensive tracking.

02

Categorise Data

Organise spending into categories like food, transport, entertainment, and utilities for better insights.

03

Generate Reports

Create monthly summaries and visualise spending patterns to make informed financial decisions.

Technical Skills: File handling with CSV, data manipulation using **pandas**, date/time processing, and report generation transform raw data into actionable financial insights.

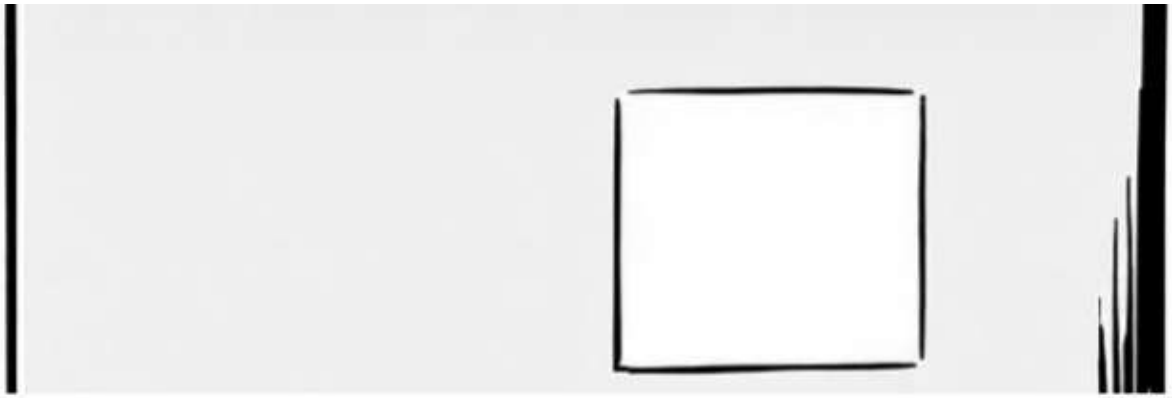
Project 3: Library Management System

Complete Library Automation

Manages book inventory, user records, and borrowing/returning processes with efficiency and accuracy. This project introduces object-oriented programming principles through Classes for Books, Users, and Transactions.

- CRUD operations (Create, Read, Update, Delete)
- Data persistence using file storage or databases
- Search and filter functionality
- Due date tracking and fine calculation

OOP Mastery: Build reusable, maintainable code structures that mirror real-world library operations.



Project 4: Voting System

User Authentication

Secure login system validates voter credentials and prevents duplicate voting.

Vote Collection

Captures votes securely with data validation and input verification.

Results Tabulation

Counts votes accurately and displays transparent, real-time results.

Core Concepts: Data validation, user authentication basics, secure input handling, and encryption techniques ensure election integrity.

Future Enhancement: Extend with blockchain concepts for tamper-proof, transparent, and auditable voting processes.

Project 5: Number Guessing Game

Game Mechanics

Interactive game where players guess a random number within a specified range. The system provides immediate feedback: "Too high", "Too low", or "Correct!"

Learning Objectives

Practice loops, conditionals, input/output operations, and random number generation in an engaging, fun context.

Enhanced Features

Add difficulty levels, attempt counters, high scores, and time limits to increase engagement and complexity.

This project is a fun way to master control flow and user interaction whilst building confidence in Python fundamentals.

How These Projects Build Your Python Skills

Fundamental Concepts

Master variables, loops, functions, and modules through practical application in real-world scenarios.

Essential Libraries

Gain hands-on experience with powerful libraries like **random**, **pandas**, and **datetime** for solving practical tasks.

Problem-Solving

Develop logical thinking and algorithmic approaches by tackling real challenges with creative solutions.

Portfolio Building

Create a showcase of functional applications that demonstrate your skills to potential employers or collaborators.

Your Python Journey Begins Now!

Build with Purpose

These five projects are your gateway to mastering Python through meaningful, practical applications.

Experiment Fearlessly

Break things, fix them, and innovate with confidence—every error is a learning opportunity.

Unlock Your Potential

Ready to code? Let's transform your ideas into powerful Python solutions together!