



CODEXCUE

PYTHON DEVELOPMENT

PURPOSE



Python development encompasses a wide range of applications, from simple scripts to complex machine-learning algorithms, making it one of the most versatile programming languages in the world. Its simplicity and readability make it an ideal choice for beginners, while its powerful libraries and frameworks, such as Django for web development, Pandas for data analysis, and TensorFlow for artificial intelligence, cater to the needs of advanced developers. Python's widespread adoption across diverse fields like web development, data science, automation, and scientific computing is a testament to its flexibility and efficiency. Whether it's developing a web application, automating routine tasks, analyzing large datasets, or creating AI models, Python offers a robust and dynamic environment for developers to bring their ideas to life, fostering innovation and creativity in the digital world.

PROJECTS OVERVIEW

ALLOCATED PROJECTS

In the **Allocated Project Section** of **Codex Cue** Python Development internship program, interns will embark on a journey through the foundational stones of Python development, working on three pivotal projects: a **Calculator**, **URL shortener**, **music app**

Calculator Develop a Python-based calculator that can perform basic arithmetic operations through a command-line interface or a simple GUI.
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URL Shortener Create a Python application that generates short URLs for long links

Music App Build a music player application in Python that will play music from your audio library
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GOLDEN PROJECTS

Moving to the **Golden Project Section**, you will tackle two advanced projects: **Plagiarism Checker** and **Voice Assistant**. These projects are not only designed to deepen your understanding of python development but also to refine your skills in user interface making you industry-ready for entry-level positions. Together, these projects encapsulate the essence of the python's role in the Industrial Revolution era, preparing you to harness the power of python development to drive innovation and efficiency in the tech landscape.

Plagiarism Checker: Develop a plagiarism detection tool that compares text documents for similarity, using natural language processing libraries like NLTK or spaCy.

Voice Assistant Create a voice-controlled personal assistant using Python, leveraging speech recognition libraries like Speech Recognition and text-to-speech libraries such as gTTS or pyttsx3.

PROJECT DETAILS

Project Deliverables

Calculator

Project 1	Description
IDE	PyCharm, VS code, Visual Studio
Duration	4-Days

URL Shortener

Project 2	Description
IDE	PyCharm, VS code, Visual Studio
Duration	4-Days

Music App

Project 3	Description
IDE	PyCharm, VS code, Visual Studio
Duration	4-Days

Plagiarism Checker

Project 4	Description
IDE	PyCharm, VS code, Visual Studio
Duration	5-Days

Voice Assistant

Project 5	Description
IDE	PyCharm, VS code, Visual Studio
Duration	5-Days

INSTRUCTIONS

- You have to complete least 3 Allocated Projects assigned to you to Earn Internship Completion Certificate
- You have to complete the at least Golden 1 Project to get the Recommendation Letter
- You have to complete all allocated projects and golden projects to earn swags and more.

MOTIVATION

As you embark on this transformative journey with us, we extend our heartfelt wishes for success and express our confidence in your abilities to conquer the challenges ahead. Through the meticulously designed projects in this internship program, you're not just learning; you're preparing to excel in the competitive market. We are optimistic that the skills and insights you'll gain from these projects will not only make you industry-ready but will also propel your career forward at an unprecedented pace. Best of luck, and remember, every challenge is an opportunity to shine brighter in your professional path.

Thank you for your consideration.