



Python Assignment 1

FUNDAMENTALS OF PYTHON

By

Team IOIT





Python Assignment 1 – Fundamentals of Python

Python 2024 Online Summer Internship

Make Your Place in Top 20% Python Programmers of the World

Aim

The main aim of this assignment is to understand and practice the fundamentals concepts of Python Programming Language including

- Numbers
- Variables
- Arithmetic operators
- Selection structures
- Repetition structures
- Functions



Learning Outcomes

After doing the TODO Tasks, and Your Turn Tasks given in the Lectures, a student should be able to:

- Understand main concepts related to Python Programming Language
- how to write high-quality programs using a Template-based Approach





Template-based Approach to Write a High-quality Python Program

- Please follow the 10-step process mentioned in Lecture 4 to write all your programs
 - Step 1: Completely and Correctly Understand the Real-world Scenario
 - Step 2: Extract Client Requirements
 - Step 3: Extract Input-Processing-Output
 - Step 4: Write down Pseudocode
 - Step 5: Draw Flowchart (if needed)
 - Step 6: Select Most Suitable Programming Language, IDE, and Machine to Write High-quality Code
 - Step 7: Write down Developer and System Information
 - Step 8: Transform Pseudocode (or Flowchart) into Code with Proper Comments
 - Step 9: Test Your Code
 - Step 10: Deploy Your Software for Client Usage

Tasks

Important Note: You MUST do this Assignment using Jupyter Notebook.

Task 1

Use the Template-based Approach, to practice

- Sample Program given in the Lectures

Task 2

Use the Template-based Approach, to write programs for

- TODO Tasks (given in the Lectures)

Task 3

Use the Template-based Approach, to write programs for

- Your Turn Tasks

Note: You must write at least one program in Your Turn Tasks for each concept





Supporting Material

- Download and Install Python and Pycharm
 - Link: <https://www.youtube.com/watch?v=6a2cSXgooDo>
- Download and Install Anaconda
 - Link: https://www.youtube.com/watch?v=_otz2lhSbPU
- Understanding Jupyter Notebook
 - Link: <https://www.youtube.com/watch?v=H9lu49E6Mxs>

Guidelines for Assignment Submission

Deadline: 31-Jul-2024 (23:59 PST)

How to Submit?

Upload your Tutorial (Assignment Solution) on Microsoft Teams. Upload the following files:

1. Jupyter Notebook File
2. Jupyter Notebook in HTML Format



جزاك اللہ خیرا