

## Python

### INSTRUCTIONS

**Update your LinkedIn profiles** For the **Python internship**, you will need to complete at least 2 project for successful completion of the internship. Maintain a separate GitHub repository (name as Cloudcredits) for all the tasks and share the link of the GitHub repo in the task submission form(it will be given later through email). You can refer to online resources such as Google Search and read tutorials. Watch videos(For Help).

### SUBMISSION

A TASK SUBMISSION FORM will be shared later through email . Till then please continue your task. A video need to be created to showcase your work, a demo of your effort. For **Python internship**, you will need to complete at least 2 project for successful completion of the internship. The video can be hosted on LinkedIn for proof of your work and to build credibility among your peers. You can tag @Cloudcredits in such posts. Please add #Cloudcredits in each of your task video postings on LinkedIn, Additionally, you can also add hashtags such as #internship #python. for more reach and visibility

### ABOUT THE INTERNSHIP

- **Offer Letter**
- **Completion Project Certificate**
- **Placement Support**
- **PPO (Pre Placement Offer)**
- **Network Opportunity**

## **Python project names:**

- 1. SimpleCalculator**
- 2. BasicToDoList**
- 3. GuessTheNumber**
- 4. CurrencyConverter**
- 5. RandomQuoteGenerator**
- 6. WeatherApp**
- 7. DiceRollSimulator**
- 8. BMIconculator**
- 9. TextEditor**
- 10. AlarmClock**

## Each project follows a general structure:

Certainly! For each of these project ideas, I can outline a general structure or flow that you can follow when implementing them in Python:

### 1. SimpleCalculator

- **Functionality**: Implement basic arithmetic operations (addition, subtraction, multiplication, division).
- **Structure**:
  - Define functions for each operation (addition, subtraction, multiplication, division).
  - Use input() to get numbers and operation choice from the user.
  - Perform the selected operation and display the result.

### 2. BasicToDoList

- **Functionality**: Allow users to add tasks, mark them as completed, and view the list of tasks.
- **Structure**:
  - Use a list to store tasks.
  - Implement functions for adding tasks, marking tasks as completed, and displaying tasks.
  - Use loops and conditionals to manage the list based on user input.

### 3. GuessTheNumber

- **Functionality**: Generate a random number and let the user guess it.
- **Structure**:

- Generate a random number using the random module.
- Use a while loop to repeatedly ask the user for guesses until they guess correctly or run out of attempts.
- Provide feedback to the user (too high, too low, correct).

#### 4. CurrencyConverter

- **Functionality**: Convert between different currencies using current exchange rates.
- **Structure**:
  - Use an API (like Fixer.io or ExchangeRate-API) to get the current exchange rates.
  - Define functions for converting from one currency to another.
  - Take input from the user for the amount and the currencies involved.

#### 5. RandomQuoteGenerator

- **Functionality**: Display a random quote from a predefined list of quotes.
- **Structure**:
  - Store quotes in a list or a database.
  - Use the random module to select a quote randomly.
  - Display the randomly selected quote to the user.

#### 6. WeatherApp

- **Functionality**: Fetch and display weather information for a given location.

- **Structure**:

- Use an API (like OpenWeatherMap) to fetch weather data based on user input (city name or zip code).
- Parse and display relevant weather information (temperature, humidity, etc.).

## 7. DiceRollSimulator

- **Functionality**: Simulate the rolling of dice.

- **Structure**:

- Use the random module to generate random numbers representing dice rolls.
- Allow the user to specify the number of dice and sides per dice.
- Display the result of each dice roll to the user.

## 8. BMIcalculator

- **Functionality**: Calculate Body Mass Index (BMI) based on user input (height and weight).

- **Structure**:

- Take input from the user for height (in meters or feet) and weight (in kg or lbs).
- Calculate BMI using the formula:  $\text{BMI} = \frac{\text{weight}}{\text{height}^2}$ .
- Display the calculated BMI and interpret the result (underweight, normal weight, overweight, etc.).

## 9. TextEditor

- **Functionality**: Create a basic text editor with features like open, edit, save, and close.
- **Structure**:
  - Use file operations (open, read, write) to manage text files.
  - Implement functions for opening a file, editing its contents, saving changes, and closing the file.
  - Display a menu or use command-line arguments to interact with the text editor.

## 10. AlarmClock

- **Functionality**: Set an alarm that triggers at a specified time.
- **Structure**:
  - Use the datetime module to work with dates and times.
  - Allow the user to set the alarm time and date.
  - Continuously check the current time and trigger an alarm when it matches the set time.

## **ASK US FOR HELP!**

THE PURPOSE OF THIS INTERNSHIP IS TO LEARN AND GROW.

We have no desire to dictate to you. It is entirely up to you whether you seek guidance or not.

The given tasks may seem very easy or very difficult. We expect you to approach the tasks with professional diligence and give them the attention they deserve."

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