

# Python Project Ideas

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## Countdown Timer in Python

A countdown timer is a useful tool for keeping track of time. In this project, we will create a countdown timer using Python. We will first create a function to take time in seconds and print it out in a formatted string. We will then use this function to create a countdown timer. The countdown timer will start at a given time and count down to zero. At each second, it will print out the remaining time. When the timer reaches zero, it will print out a message saying, 'Time's up!.' This project is a great way to learn about working with time in Python.

## Create Contact Book using Python

A contact book is a handy tool to keep all your contacts in one place. This project will allow you to create a contact book and add, edit, and delete contacts. In addition, you'll be able to view all your contacts and their details in one place. This project is perfect for anyone who wants to keep their contacts organised and accessible.

## Python To-Do List

The To-Do List project in Python is a program that you can use to keep track of tasks. With this project, you can write down the things that need to be done and mark them as 'done' when complete. It's a great way to stay organized and ensure nothing is forgotten.

## Dice Rolling Simulator

Simulate the rolling of a dice and display the result.

Use 'random' library! (search for it).

Input values: None

Output value: Randomly generated dice roll results.

Example:

Output value:

The dice were rolled: 3

## Rock, Paper, Scissors Game

Implement the classic game with a user interface. Import the random module to allow the computer to make a random choice.

Input values: Player selects rock, paper, or scissors.

Output value: Result of the game, indicating whether the player wins, loses, or it's a tie.

Example:

Player chooses 2 (Paper), Computer chose Rock → You win!

## Hangman Game

Build a hangman game where players guess a word by suggesting letters. The game continues until the player correctly guesses the word or runs out of attempts.

Input values: Player suggests a letter to guess the word.

Output value: Feedback on guessed letter correctness, with revealed letters displayed.

Example: Guess 'E' → Correct! Current state: E

## BMI Calculator

Develop a Body Mass Index calculator based on user input.

Input values: Weight (kg), Height (m).

Output value: BMI value and category.

Example:

Weight: 70, Height: 1.75 → BMI: 22.9, Category: Normal Weight

## Tic-Tac-Toe Game

Implement a two-player tic-tac-toe game. Players take turns marking spaces in a 3x3 grid.

The player who places three marks in a row wins.

Input values: Players input row and column.

Output value: Current state of the board and feedback on the game state.

Example:

Player 1 moves at (1,1). Player 2 moves at (2,2). Player 1 wins with a row of X's.