

# Python Project Ideas for 2020 - Work on real-time projects to head start your career

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Python is the most used programming language on the planet. Gaining Python knowledge will be your best investment in 2020. So, if you want to achieve expertise in Python then it is crucial to work on some real-time Python project ideas.

Because theoretical knowledge is of no use until and unless you work on real-time projects. In this article, DataFlair is providing you **Python project ideas** from beginners to advanced level so that you can easily learn Python by practically implementing your knowledge.

Project-based learning is the most important thing to improve your knowledge. That's why DataFlair is providing *270+ Python tutorials* and **Python projects ideas** for beginners, intermediates, as well as, for experts. So, you can also level up your programming skills.

According to Stackoverflow, Python is the most preferred language which means that the majority of developers use python.

DataFlair is providing you an amazing series of top project ideas. This is the 1st project of our series.

## Basic Python Project Ideas

## 1. Number Guessing

**Python Project Idea** – Make a program which randomly chooses a number to guess and then the user will have a few chances to guess the number correctly. In each wrong attempt, the computer will give a hint that the number is greater or smaller than the one you have guessed.

## 2. Dice Rolling Simulator in Python

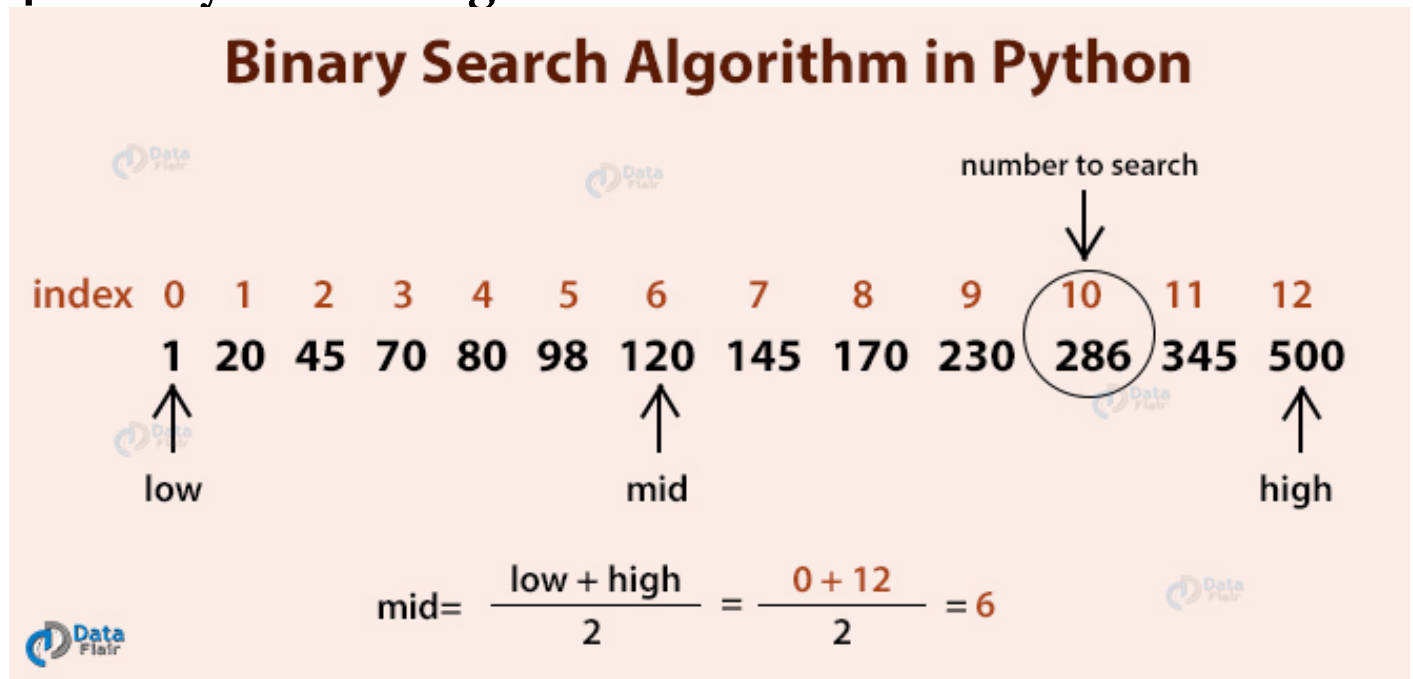


**Python Project Idea** – The dice rolling simulator will imitate the experience of rolling a dice. It will generate a random number and the user can play again and again to get a number from the dice until the user decides to quit the program.

## 3. Email Slicer

**Python Project Idea** – The email slicer is a handy program to get the username and domain name from an email address. You can customize and send a message to the user with this information.

## 4. Binary Search Algorithm



**Python Project Idea** – The binary search algorithm is a very effective way to search for an element in a long list. The idea is to implement the algorithm that searches for an element in a list.

## 5. Desktop Notifier App

**Python Project Idea** – A desktop notifier app runs on your system and it will be used to send you notifications after every specific interval of time. You can use the libraries like notify2, requests, etc to build this app.

## 6. Python Story Generator

**Python Project Idea** – The project will randomly create stories with a little bit of customizations. You can ask users to input a few words like name, action, etc and then it will modify the stories using your words.

## 7. Youtube Videos Downloader

## Python Project - YouTube Videos Downloader



**Python Project Idea** – Another interesting project is to make a nice interface through which you can download youtube videos in different formats and video quality.

## 8. Python Website Blocker

**Python Project Idea** – Build an application that can be used to block certain websites from opening. This is a very helpful

program for students who want to focus on studies and don't want any other distractions like social media.

*Any doubts in Python project ideas article till now? Mention them in the comment section.*

## Intermediate Python Project Ideas

### 1. Calculator in Python

**Python Project Idea** – Build a graphical user interface calculator using a library like Tkinter in which we build buttons to perform different operations and display results on the screen. You can further add functionalities for scientific calculations.

### 2. Countdown Clock and Timer

## Python Project - System Calculator



**Python Project Idea** – You can build a desktop application of a countdown timer in which the user can set a timer and then when the time is completed, the app will notify the user that the time has ended. It's a utility app for daily life tasks.

## 3. Random Password Generator in Python

**Python Project Idea** – Creating a strong password is a tedious task. We can build an app to generate strong passwords

randomly that contain alphabets, characters, and digits. The user can also copy the password so that they can directly paste it when creating the website.

## 4. Random Wikipedia Article

**Python Project Idea** – The project is used to get a random article from Wikipedia and then we ask the user if he wants to read the article or not. If the answer is yes then we show the article otherwise we fetch another random article.

*Time to explore DataFlair's Python projects with source code.*

## 5. Reddit Bot

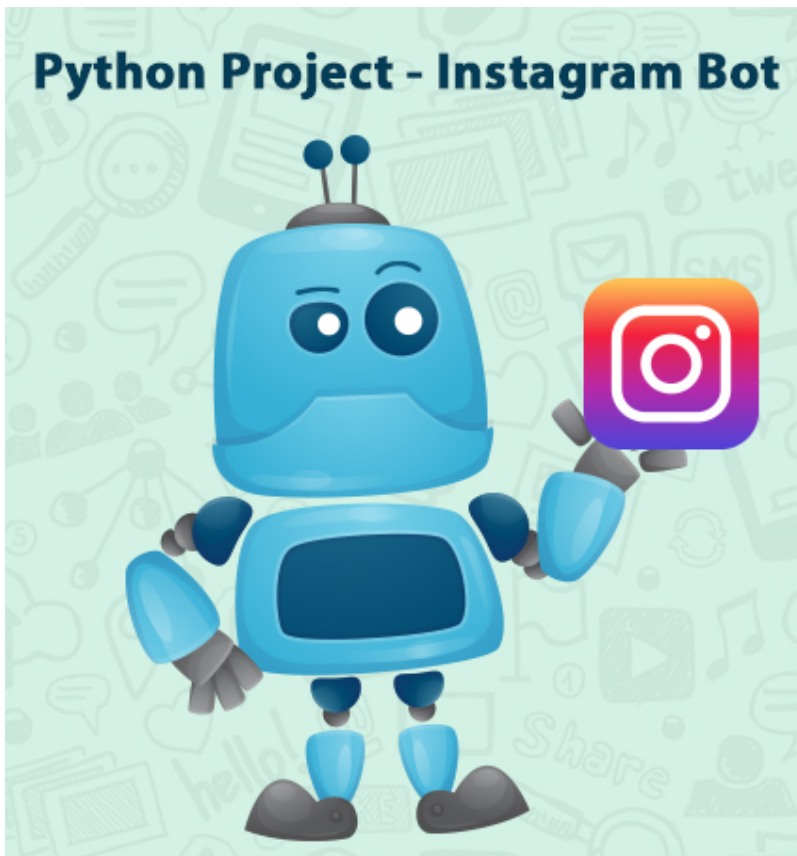
**Python Project Idea** – The Reddit is a great platform and we can program a bot to monitor subreddits. They can be automated to save a lot of our time and we can

provide useful information to the Redditors.

## 6. Python Command-Line Application

**Python Project Idea** – Python is great for building command-line applications. You can build a nice CLI interface through which you can send email to other people. It will ask the user for credentials and the data it needs to send and then we can send the data using a command line.

## 7. Instagram Bot in Python



**Python Project Idea** – The Instagram bot project is made to automate some of the basic tasks like automatically liking, commenting or following people. The frequency must be low because sending excessive requests to Instagram servers might get you deactivated.

## 8. Steganography in Python

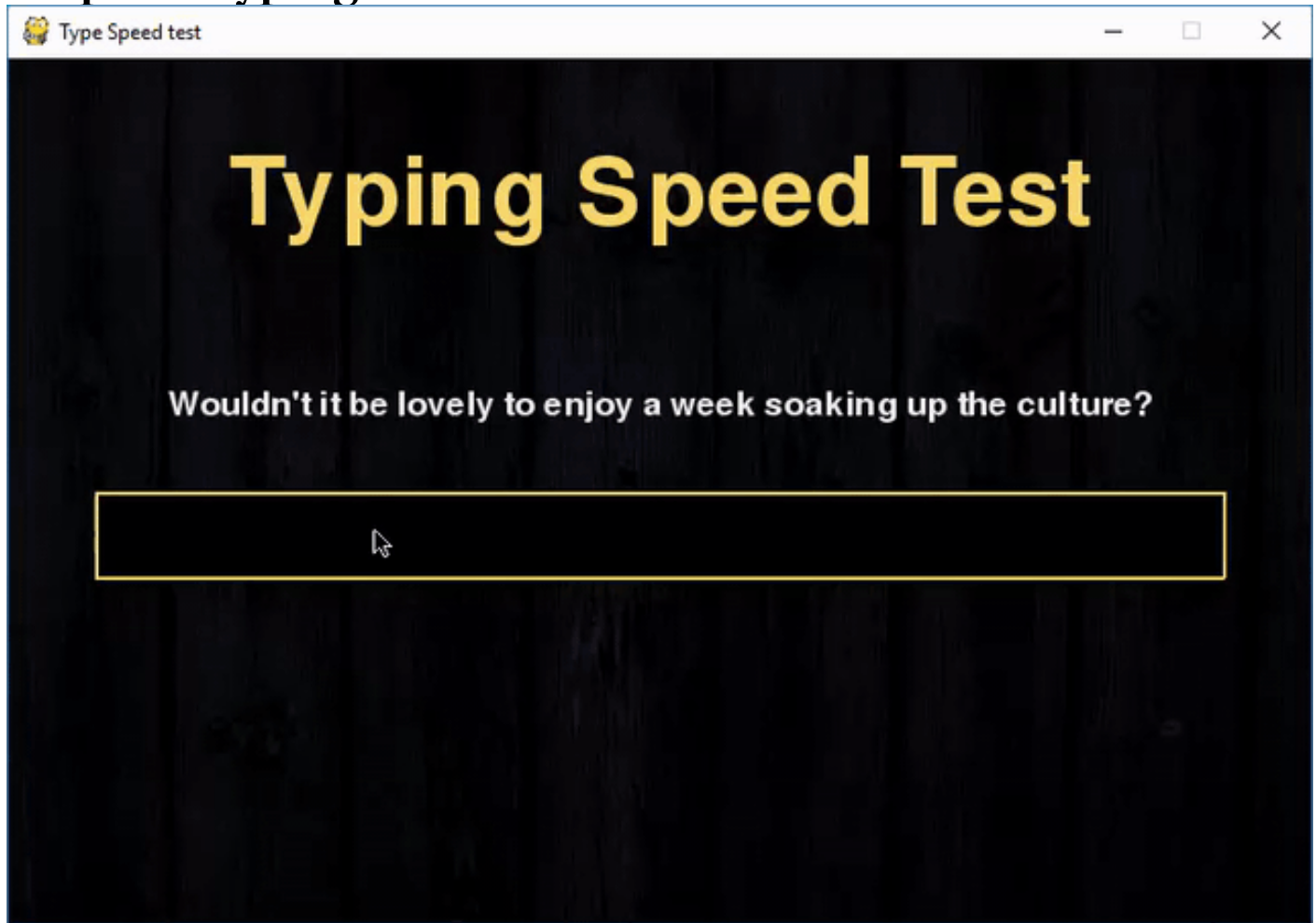
**Python Project Idea** –

Steganography is the art of hiding a message into another form such that no one can suspect the existence of the hidden message. For example, a message is hidden inside an image or a video. The project will be useful to hide messages inside the images.

# Advanced Python Project Ideas



## 1. Speed Typing Test



**Python Project Idea** – The speed typing test is a project through which you can test your typing speed. You have to make a graphical user interface with a GUI library like Tkinter then the user has to type a random sentence and when the user completes the typing, we display the typing speed, accuracy and words per minute.

**Source Code** – *Python Project on Typing Speed Test*

## 2. Content Aggregator

**Python Project Idea** – There are lots of information and articles on the internet. Finding good relevant content is hard so a content aggregator automatically searched the popular websites, looks for the relevant content and creates a list

for you to browse the content. The user can select which content they want to look or not.

### 3. Bulk File Rename/ Image Resize Application

**Python Project Idea** – Machine learning tasks include preprocessing of the data. We need to perform resize and rename images in bulk, so an application that can handle these tasks automatically will be very helpful for machine learning practitioners.

### 4. Python File Explorer

**Python Project Idea** – Build a file explorer and manager app through which you can explore the files in your system, manage, search and copy-paste them to different locations. This project will use a lot of knowledge on various concepts of Python programming language.

### 5. Plagiarism Checker in Python

**Python Project Idea** – The idea behind this project is to build a GUI application that you can use to check for plagiarism. To build this project, you need to use a natural language processing library along with the Google search API that will fetch top articles to you.

### 6. Web Crawler in Python

**Python Project Idea** – A web crawler is an automated program script that browses the world-wide-web and it can look and store the contents of the webpage. This process is called web crawling. The search engines like Google use this technique to find up to date information. Make sure to use the multithreading concept.

### 7. Music Player in Python





**Python Project Idea** – Everyone enjoys listening to good music. You can have fun while learning by building a music player app. The music player can also search for the files in directories and building an interactive interface would be a challenging task that is best for advanced programmers.

## 8. Price Comparison



## Extension

**Python Project Idea** – This is an amazing project in which you can compare prices of a product from multiple web sources. Just like on Trivago website, we can compare the hotel prices, similarly, we can compare the prices of a product on websites like Amazon, Snapdeal, Flipkart, etc and display the best offers.

## 9. Instagram Photo Downloader

**Python Project Idea** – The Instagram photo downloader project is used to download all the Instagram images of your friends. It will use your credentials to access your account and then search your friends to download their photos.

## Summary

In today's article, we have discussed 25 Python project ideas covering all the three stages of programmers. At first, we have discussed basic project ideas for beginners including number guessing, dice rolling simulator, etc. Then we have discussed some more engrossing project ideas for intermediates including a random password generator, Instagram bot, etc. In the end, we have covered some advanced projects for experts such as content aggregator, speed typing tests, etc.

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I hope you liked our Python project ideas article. If you have any doubts, mention them in the comment section.

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