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♦ Python – DateTime

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Why you should Learn Python in

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BY DATAFLAIR TEAM · UPDATED · DECEMBER 13, 2019

Why Learn Python? – Reasons for its Hype in Programming World

The IT industry moves at a quick pace and

Big Data

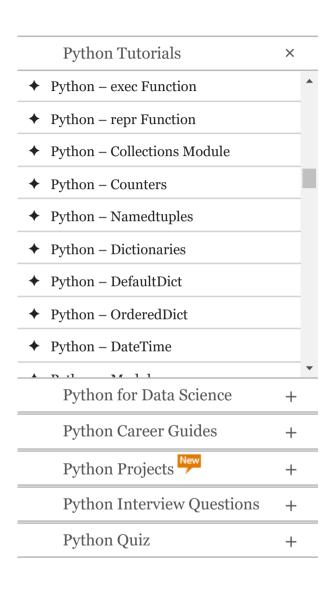
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new technology or programming language that is emerging and people strengthening it. This becomes overwhelming for the beginners who are confused about which programming language would be well suited and fit for them.

But, don't worry, DataFlair has a plan for you. We are not going to bombard you with Top 5 or Top 10 programming languages you need to learn, instead, we will focus on only one language and that's **Python**.

Let's start the article with a fun fact.



Did you know?

The term "Python" relating to a programming language is more popular than the famous star "Kim Kardashian". You can confirm this fact by comparing them in Google Trends.

Python Tutorials X ♦ Python – exec Function ♦ Python – repr Function ♦ Python – Collections Module ◆ Python – Counters ◆ Python – Namedtuples ◆ Python – Dictionaries ♦ Python – DefaultDict ◆ Python – OrderedDict ◆ Python – DateTime Python for Data Science **Python Career Guides** Python Projects New +**Python Interview Questions** +Python Quiz +

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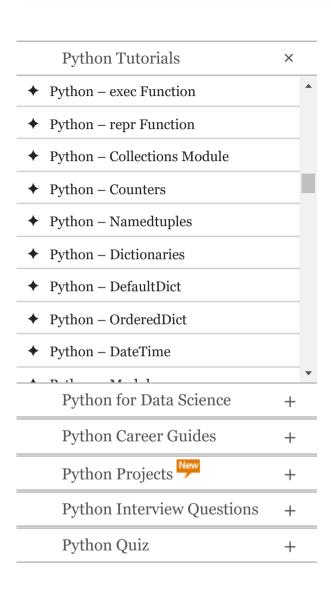
Why Learn Python?



The first question that is probably coming inside your mind is "Why specifically learn Python?" Well, the answer to this question is quite simple. Think about the factors you would like to include in a programming language.

1. Learnability

Is it gonna be hard? No! Not at all. Python is the first language of choice in many



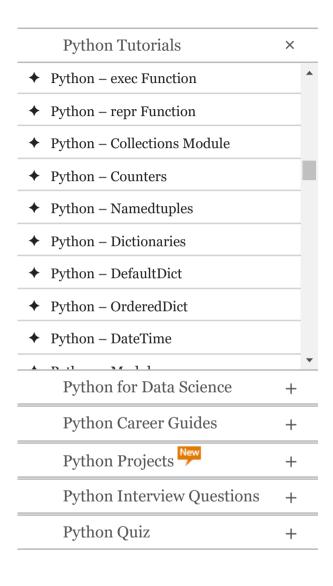
learning to program with Python. The Python language was designed to ease the programming with English like syntax, it cut down all the low-level tasks and provided a high-level abstraction for you to perform any tasks you want.

A single guide for all the Python Topics that you can't miss – Python Master Guide

2. Increased Productivity

After learning a programming language, what are you planning to do? Do you want to build applications, web services, exciting games, automate a repetitive task, perform complex scientific or numeric calculations or gather insights from some data? Python has got you covered with everything. It's one of the most productive languages out there.

270+ Python Tutorials – Get everything related to Python from basic concepts to real-time projects

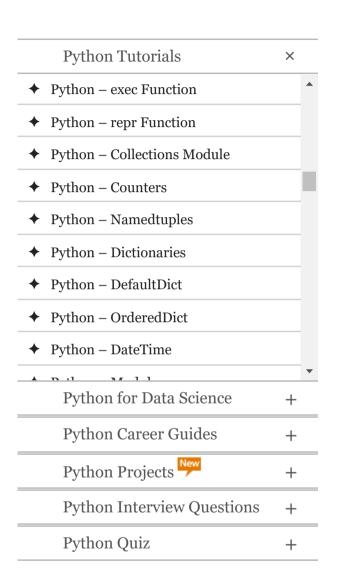


3. High Paying Salaries

Learning Python is the best investment you can make today. Python developers are paid highest especially in the domain of web development, *machine learning*, and *data science*. The salaries can range from \$70,000 to \$1,50,000 depending on the location and your experience in the industry. There is a lot of demand for Python developers in the IT industry so you won't have any trouble finding Python jobs in the market.

Another Fun Fact – Python is #3 on the Tiobe index, and it has been the Programming language of the year many times including 2018 and according to our predictions, it will probably be the programming language of the year in 2019 as well. Let's see that in January 2020.

Dive into amazing Career Opportunities in Python



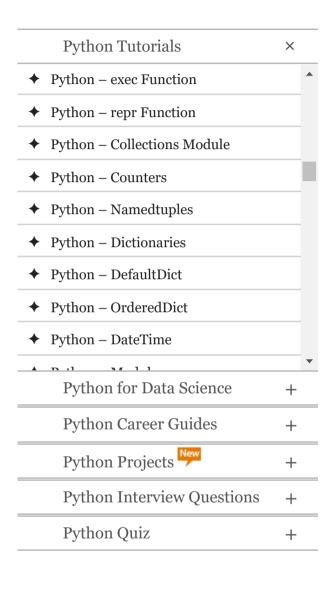


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There is no limit to the things you can do with Python but here we will be describing you some of the most important real-world applications of Python to give you a hint of where actually you can use the Python Programming language.

1. Web Development

Python is a good choice for rapid development of web applications. With many frameworks like *Django*, Pyramid, and Flask, Python allows you to build web apps with great speed. Python is used on the server-side of web development, you can use Python to interact with the database and build Rest API services.



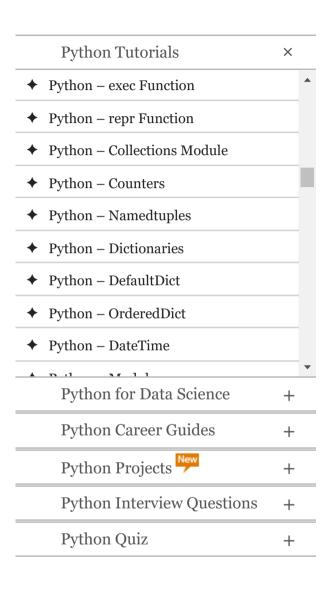
2. Data Science

Earlier Python was mostly used for building applications and writing scripts to automate tasks but now a whole new trend of data science has uplifted Python even more. Data science people are heavily dependent on Python because of its advantages like simplicity, great community, and capabilities to compute huge calculations with ease. Python libraries and frameworks that are popular in the data science field are:

- **Pandas** (Data analysis)
- *Numpy* (Numeric and scientific calculations)
- *Matplotlib*, Seaborn (Data visualizations)
- Scikit-learn (Machine learning)
- *Tensorflow*, Keras (Machine and Deep learning)

3. Artificial Intelligence

The near future will be the era of artificial intelligence. Computers and machines were

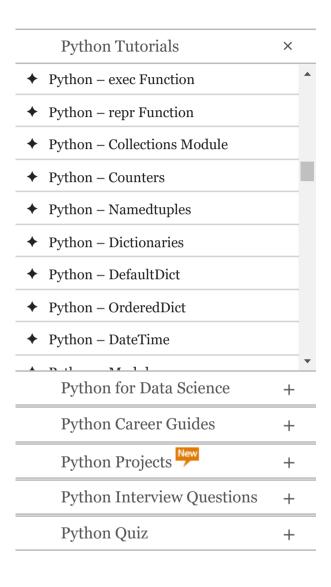


used to perform mathematical calculations at very high speeds but now many big organizations and researchers are working on building intelligent systems that can perform tasks as a human would. To some extent, machines are capable enough to understand human emotions and their natural language. They can mimic certain actions performed by humans that were not possible before. Again Python is popular for building AI systems. Some *Python libraries* that are used for building intelligent systems are listed below:

- *NLTK* Natural language toolkit for Natural language processing
- *OpenCV* Open-source computer vision library
- Keras Deep learning library
- Microsoft cognitive toolkit Deep learning framework

4. Automation

There are many business-related and organizational tasks that are repetitive.

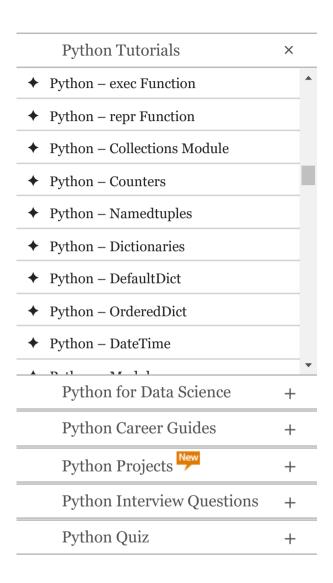


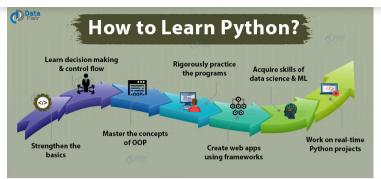
many tasks like scraping a website to collect data, automating test cases in software development areas, to automating mundane office tasks. Python can easily access and read all types of files which opens up an opportunity to save a lot of time by automating repetitive tasks. The frameworks or library used for automation are:

- Robot framework
- PyTest
- Selenium Python
- PyUnit

Python is being used in diverse fields remarkably and it shows no signs of stopping. It is safe to conclude that Python will stick for the long run in this ever-changing and evolving IT industry.

How to Learn Python?





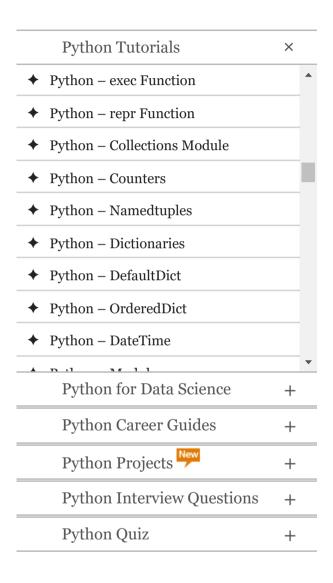
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You have made this far in the article, I know that you are excited about programming and pondering about the wonderful things you would like to build with Python. Let's take another step and make a plan for yourself on how you can learn Python effectively.

Every piece of information you need is out there on the internet. Even people from nontechnical fields and non-computer science background have self-taught themselves to program. You have the option of taking an online programming course or learn to program from the freely available online resources.

The seven sins you should commit:

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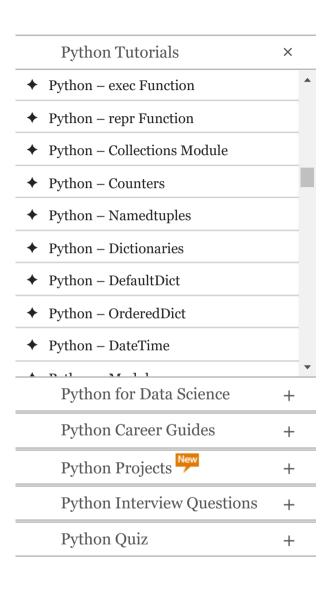


It all starts with the beginning, understand the terms and concepts related to programming. So dive right in by *installing Python* on your machine and start learning the basics syntax, variables and data types of Python programming language.

Step 2: Learn Decision making and Control flow

After getting familiar with the basics, learn about how you can *make decisions* in a programming language. There are different methods like if and else statements that allow you to make decisions according to a condition. *Loops* are also an important part of all programming languages. You can easily perform a repetitive task using loops and learn the concept by implementing different types of loops like For loop, while loop and nested loops.

Step 3: Master the Objectoriented Programming (Oops)

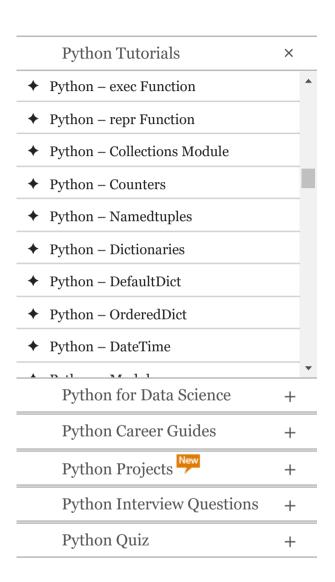


Object-oriented programming is an approach of solving all problems by thinking about the real-world entities in the form of objects and *classes*. For becoming a better programmer, one must understand the concepts and principles of Object-oriented programming. Oops are beneficial when building large scale applications, it helps us in writing clean code by reusing the usable components. They are also easy to maintain.

Step 4: Practise programs

Practise is the most important aspect of programming. You will never be a good programmer until you have spent hours solving different types of problems. I would like to remind you again that programming is not as hard as people often think. It just requires some time to discover approaches by solving different problems. So don't forget to practice!

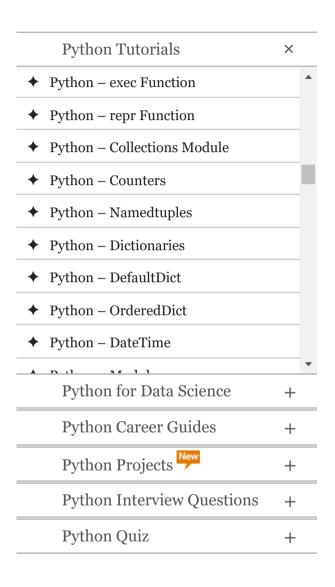
Step 5: Create Web Apps using Frameworks



In the web development environment, Python is used on the server-side programming of web applications. We use HTML, CSS, and JavaScript on the front side to define the look of our website along with transitions and animations. This is also called the front end of an application. The back end of the application involves handling requests from the browser or the front end, retrieving data from the database and performing operations. Python manages all these serverside related tasks. The most popular Python framework for web development is Diango. Another popular framework is *Flask*. These frameworks offer the rapid development of applications. So you can choose any one of them and make a small project by creating a web app with basic CRUD operations.

Step 6: Acquire Skills of Machine learning and Data science

The world of **data science** and machine



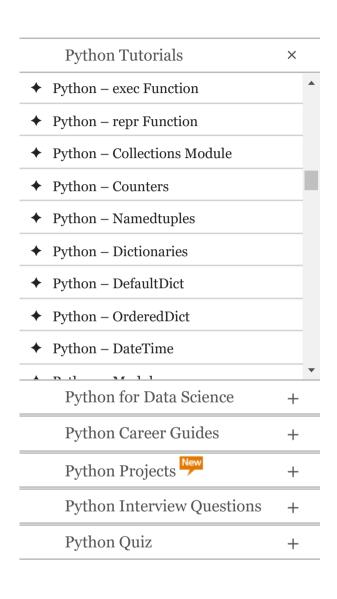
boost your profile by acquiring the skills of a data scientist or a machine learning engineer. Start with the introduction for these topics, types of *machine learning algorithms*, practice programming by implementing the different machine learning models. Analyze the data using the Pandas library, perform numeric calculations using Numpy library, build machine learning models using scikitlearn and visualize data with libraries like matplotlib or seaborn.



Step 7: Work on Python Projects

Look around yourselves and think about what problems you can solve. Create a list of project ideas and build something from all the things you have learned. Make a major project by integrating everything. You can build a machine learning model and integrate it with a website by providing some form of



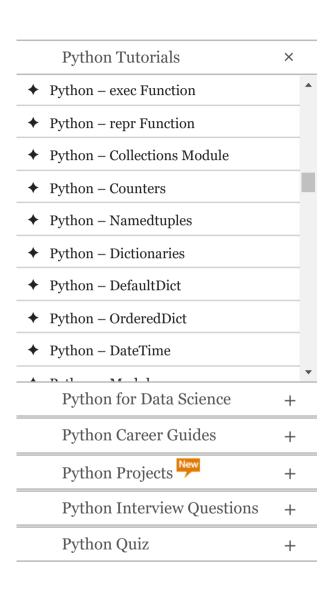


Get ready to work on the real-time Python projects with source code:

- 1. Fake News Detection Python Project
- 2. Parkinson's Disease Detection Python Project
- 3. Speech Emotion Recognition Python Project
- Breast Cancer Classification Python Project
- 5. Age and Gender Detection Python Project
- 6. Chatbot Python Project
- 7. Driver Drowsiness Detection Python Project
- 8. Traffic Signs Recognition Python Project
- 9. Image Caption Generator Python Project

Summary

Many programming languages come and go each year. But only the strong ones will survive in the industry. All these years, Python is constantly rising in the industry and proved itself worthy to be known as one of the top programming languages. With



open many doors in various fields including web development to modern age jobs like AI engineer or a data scientist. Python is one of the rarest languages which offers a lot to beginners as well as experienced programmers.

Time to get interview ready with Top Python Interview Questions

Do share your views regarding why learn Python article in the comment section. Our experts at DataFlair will be happy to help you.

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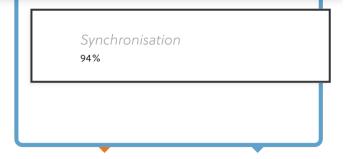
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Carlos Bolivar ① December 27, 2019 at 3:20 am Muy interesante este articulo, concreto y objetiva la ruta para aprender este fascinante lenguaje

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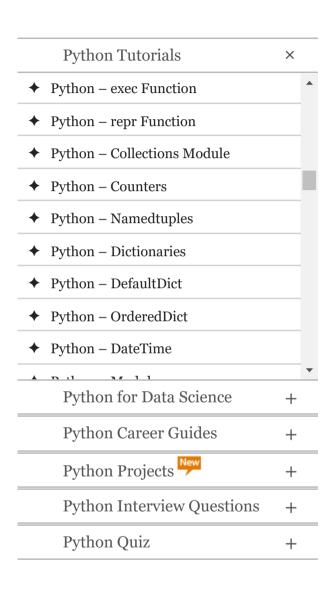
Rahul © February 12, 2020 at 6:41 pm
Happy to see you are enjoying the
Python tutorials, keep visits DataFlair
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Reply

Abdul ① February 12, 2020 at 12:32 pm

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Data and AI hut I want to work first on Data

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Also I would love to advise Data Flair to check the comment section it has something to be fix, When I want to comment it failed first then second it pass but it give message like this below

Error: You have entered an incorrect reCAPTCHA value.

Click the BACK button on your browser and try again.

Thanks Data Flair,

Reply

Rahul ① February 12, 2020 at 6:45 pm

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Data Science tutorials series

But I recommend you to first master Python:

Learn Python

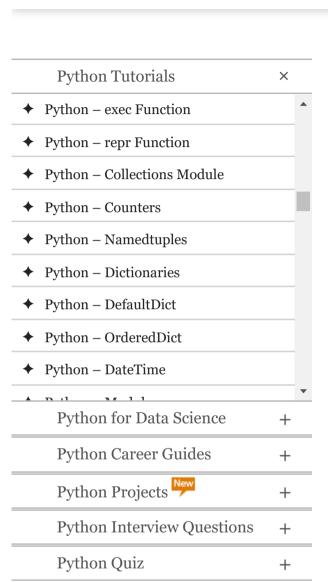
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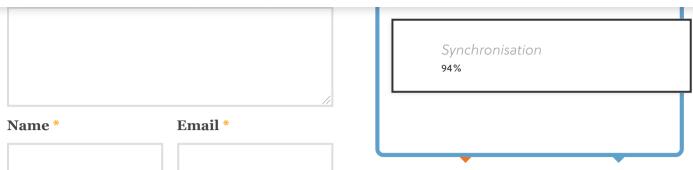
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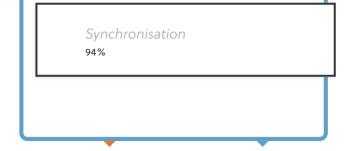




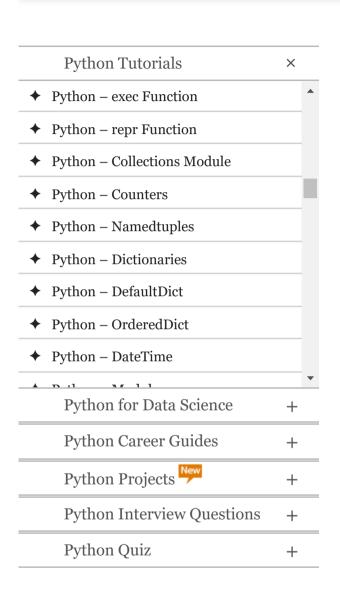
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