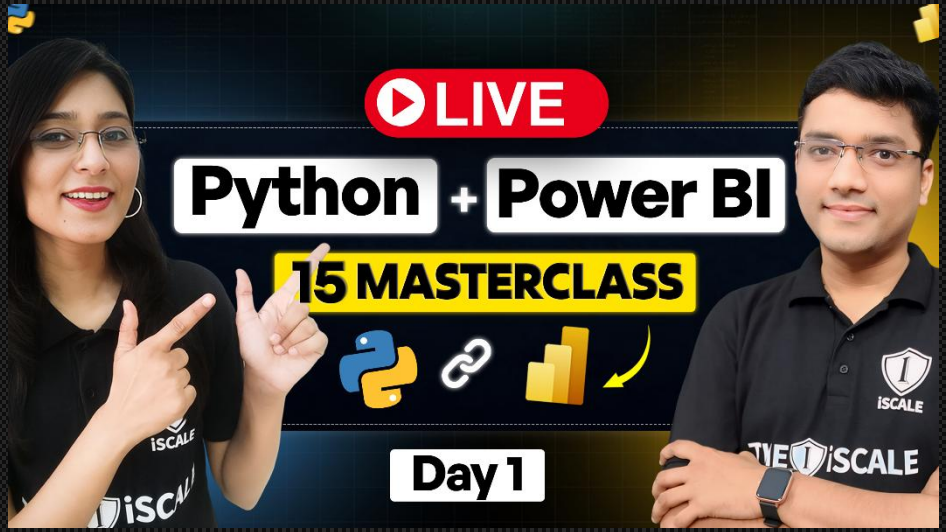

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1) Why am I learning this course?

2) How should I learn to become job-ready?

3) Where will I be after completing these classes?

Download the Notes from Description Box

- No prior coding knowledge Required
- No prerequisites required

The only things needed are
- consistency
- willingness to learn.

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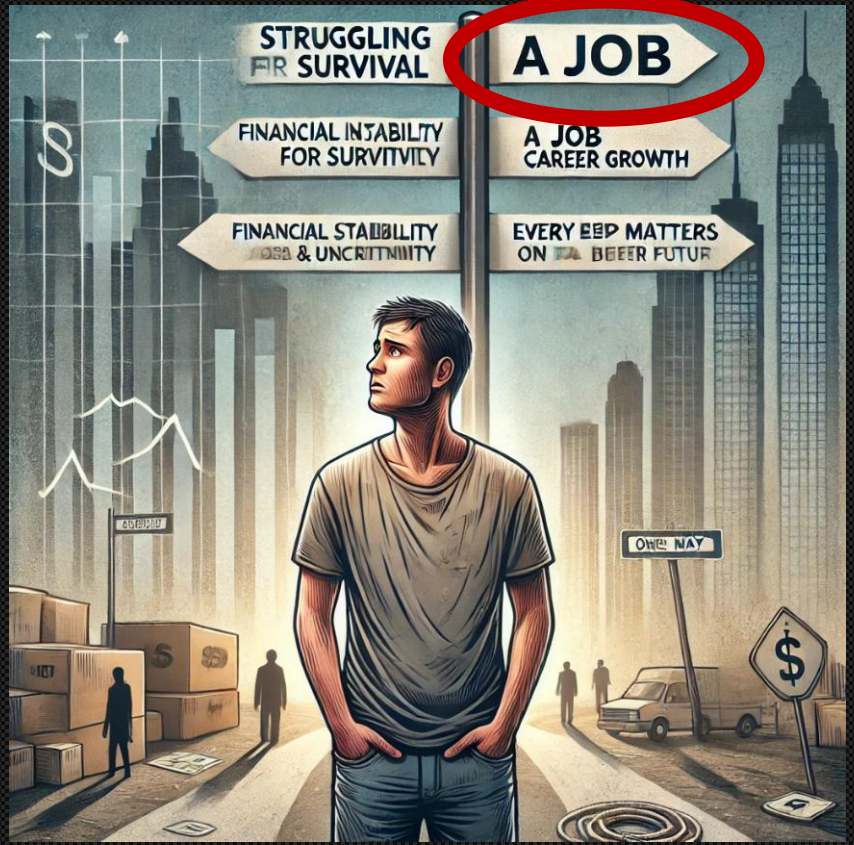
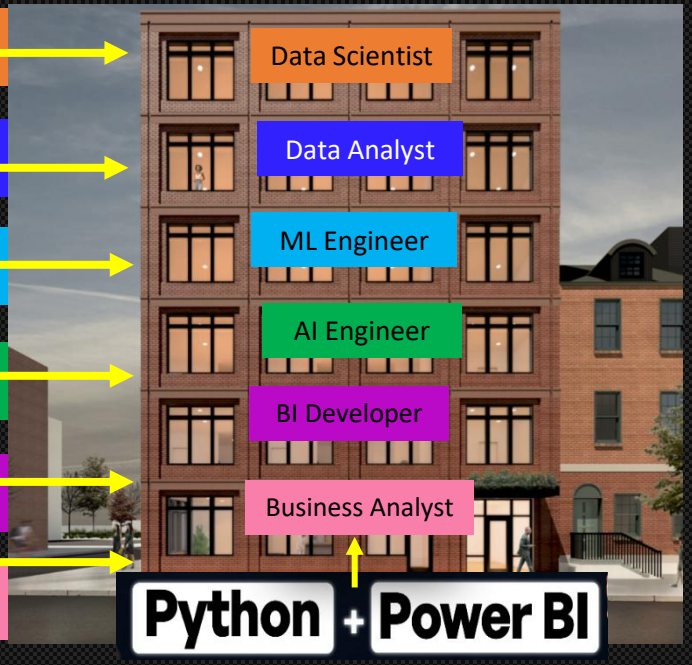


Why am I learning these course?

THE iSCALE

Python + Power BI

- Data Scientist
- Data Analyst
- ML Engineer
- AI Engineer
- BI Developer
- Business Analyst



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Approx **15–20 lakh companies** use **Python** in some capacity worldwide

Python is the **2nd most-used language** globally on GitHub, with millions of repositories and contributors from organizations.

Over **85% of data scientists and AI engineers** use Python.

Python powers AI in **Google, Meta, Netflix, Amazon, Microsoft**, and **OpenAI** for cutting-edge projects like ChatGPT, recommendation systems, and autonomous systems.

Surveys show that **9 out of 10 AI/ML engineers** prefer Python over other languages like R, Java, or C++ for their flexibility and efficiency.

Python ranked as the **#1 programming language** for AI projects across industries.

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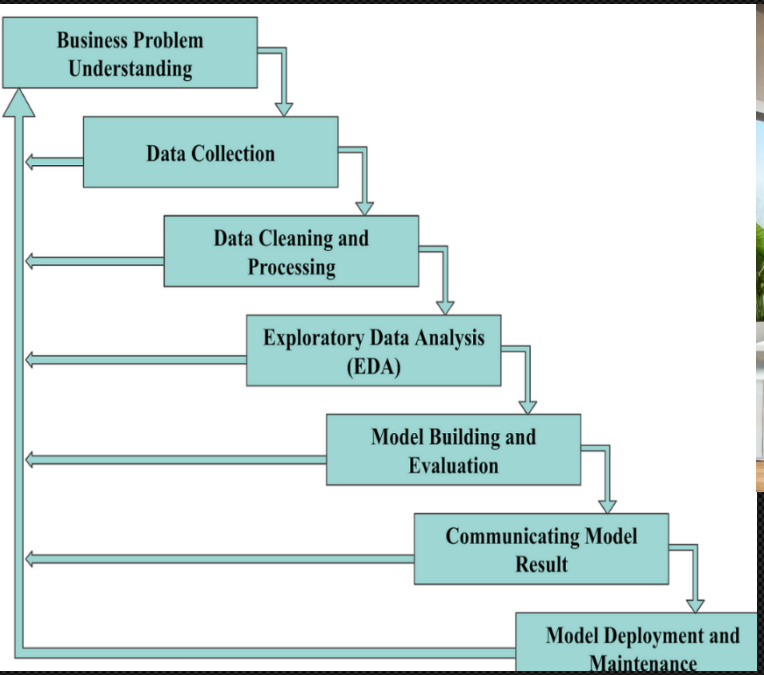
AI-powered Recommendation System



(a) Generative AI (Gen AI)
Examples: ChatGPT, Deepseek, DALL·E, Midjourney, Stable Diffusion.

(b) Agentic AI
Examples: AutoGPT, BabyAGI, Devin AI.

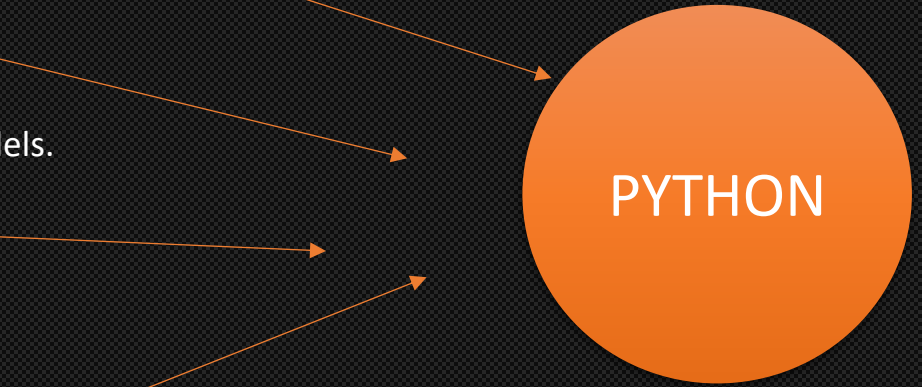
(c) Predictive AI
Examples: Stock market prediction, weather forecasting models.

(d) Conversational AI
Examples: Chatbots like ChatGPT, Bard, and Alexa.

(e) Autonomous AI
Examples: Tesla FSD, Boston Dynamics' robots.

(f) Cognitive AI
Examples: IBM Watson.

(g) Explainable AI (XAI)
Used in healthcare, finance, and regulatory industries.



Applications

Workhelix, Meeno , Workera, Speechlab , Credo ai , Commonsense

Foundation Model – Open AI ,Anthropic ,Meta

Cloud Infrastructure – AWS, Google Cloud, Azure Snowflake

Semiconductors - Nvidia , AMD , Intel

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AI , Python & Jobs

- OpenAI
- Google DeepMind
- Google AI (Brain Team)
- Microsoft AI
- Meta AI
- Anthropic
- Hugging Face
- Stability AI
- NVIDIA AI
- Tesla AI
- Amazon AI (AWS AI/ML)
- IBM AI (Watson AI)
- Cohere
- xAI (Elon Musk's AI company)
- Alibaba DAMO Academy

1. Google: Google apne search engine, app engines, aur recommendation engines mein Python ka upyog karta hai.

2. Instagram: Instagram apne backend services aur features jaise notifications aur image processing ke liye Python ka upyog karta hai.

3. Spotify: Spotify apne data analysis aur backend services mein Python ka upyog karta hai, jisse user experience ko sudhara ja sake.

4. Netflix: Netflix apne content recommendation systems aur data analysis mein Python ka upyog karta hai.

5. Quora: Quora apne question-answer platform ke liye Python ka upyog karta hai, jisse platform ki performance aur scalability sudhri ja sake.

6. Dropbox: Dropbox apne file storage aur synchronization services mein Python ka upyog karta hai.

7. Reddit: Reddit apne backend services aur infrastructure automation mein Python ka upyog karta hai.

8. NASA: NASA apne scientific computing aur data analysis mein Python ka upyog karta hai.

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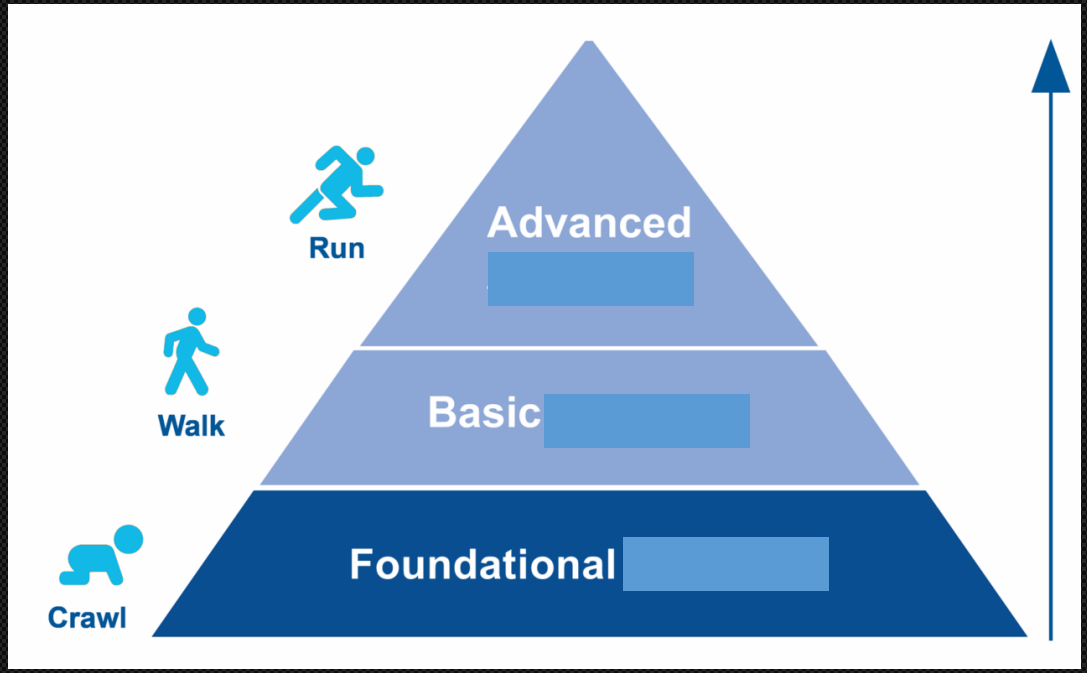
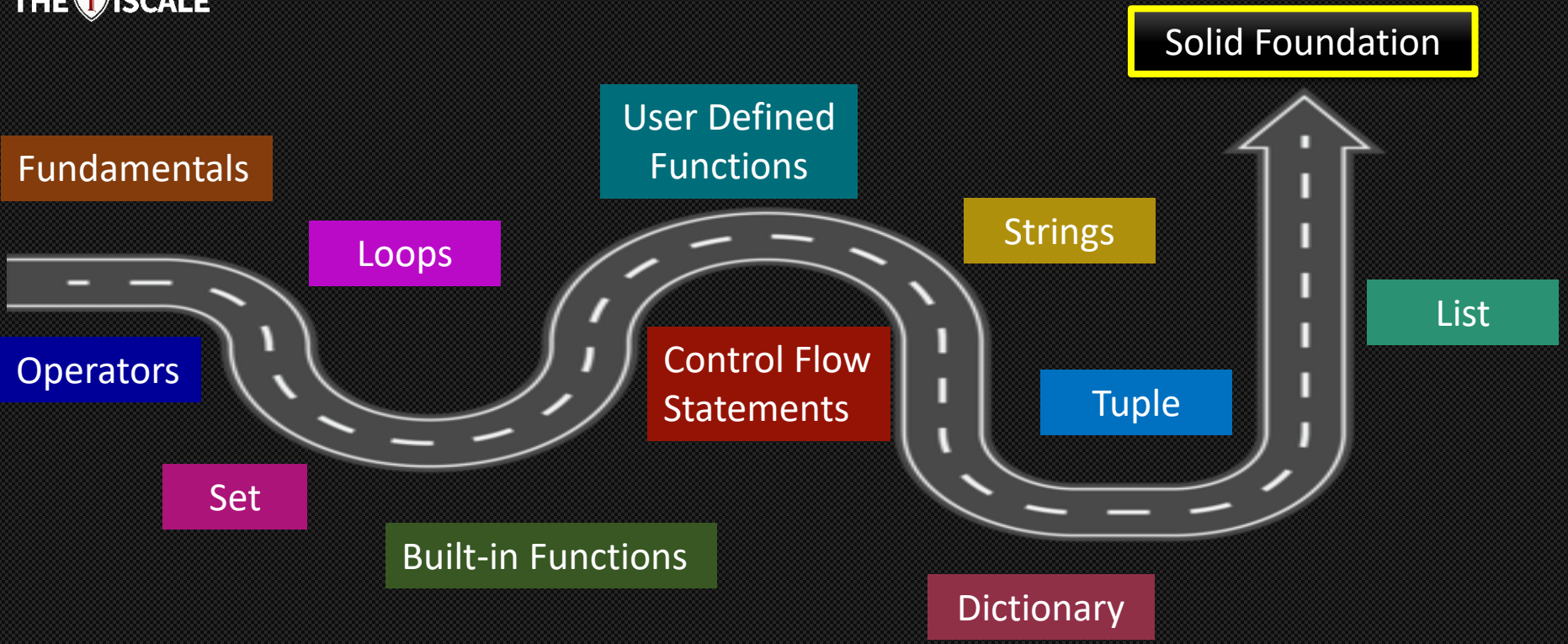
How should I learn to become job-ready?



THE iSCALE



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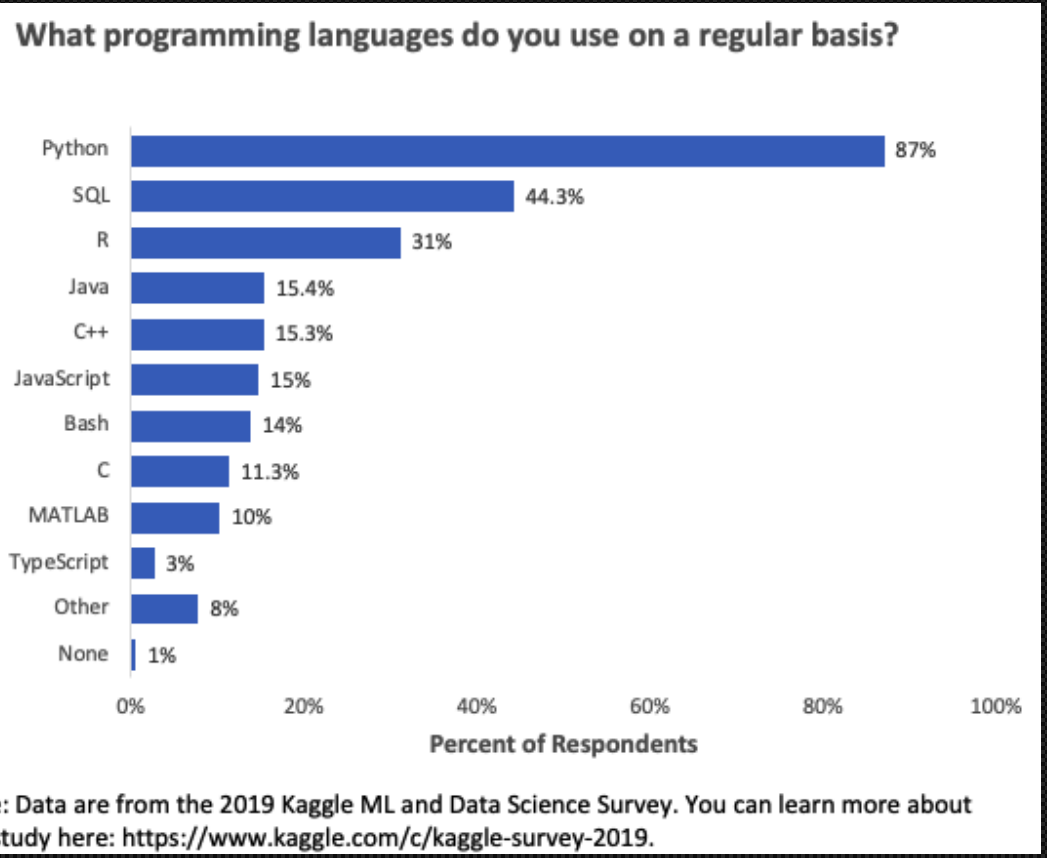
Where will I be after completing these classes?

A Brief History of Python

Python is a high-level, general-purpose programming language that was created by Guido van Rossum and first released in 1991.

On November 2020 Van Rossum holds the title Distinguished Engineer at Microsoft.

Van Rossum is now part of a team at Microsoft working to speed up the language's performance. And recently a Microsoft blog post reported that Python 3.11 had brought speedups of 10-60% to some parts of the language.



Note: Data are from the 2019 Kaggle ML and Data Science Survey. You can learn more about the study here: https://www.kaggle.com/c/kaggle-survey-2019.

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What is Anaconda Navigator?

Anaconda Navigator is a graphical user interface (GUI), which is a popular Python distribution for data science and machine learning tasks.

It provides an easy-to-use interface for managing packages, environments, and applications related to Python programming, especially in the realm of data science and scientific computing.

Inside Anaconda Navigator, you have access to integrated development environments (IDEs) that are commonly used in Python development, particularly for data science and scientific computing tasks.

What is an IDE?

An Integrated Development Environment (IDE) is a software application that provides comprehensive facilities for software development.

It typically includes a code editor, a compiler or interpreter, build automation tools, debugging tools, and other features to streamline the process of writing, testing, and debugging code.

Data Visualization: Many IDEs include integrated data visualization tools that allow data scientists to explore and visualize datasets directly within the IDE. This enables them to quickly generate plots, charts, and graphs to better understand the data and identify patterns and trends.

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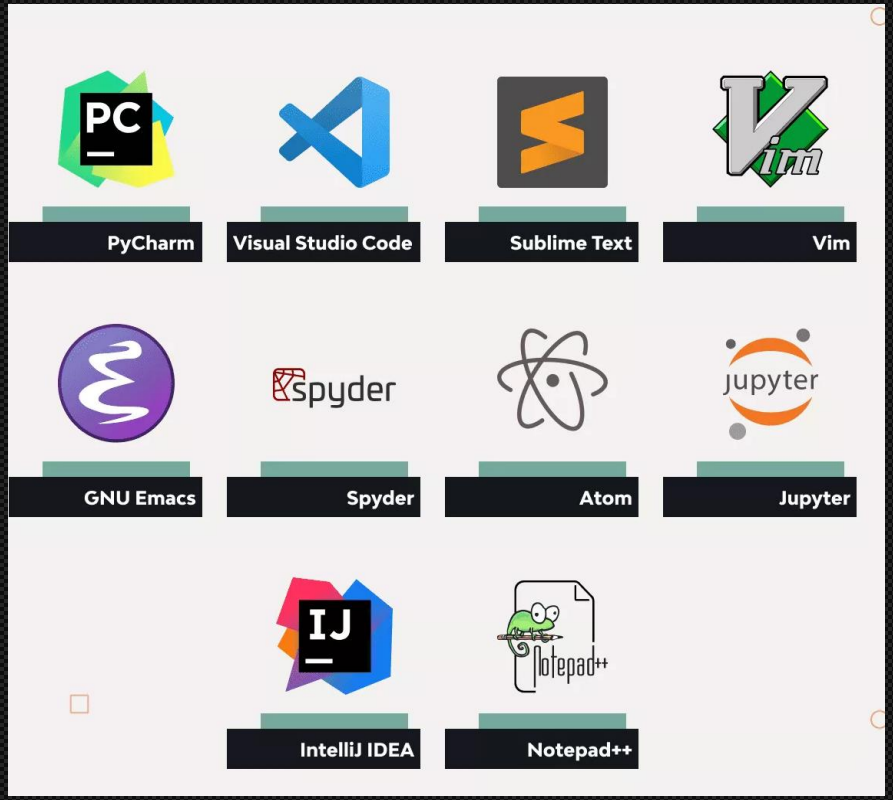
Types of IDE in Python?



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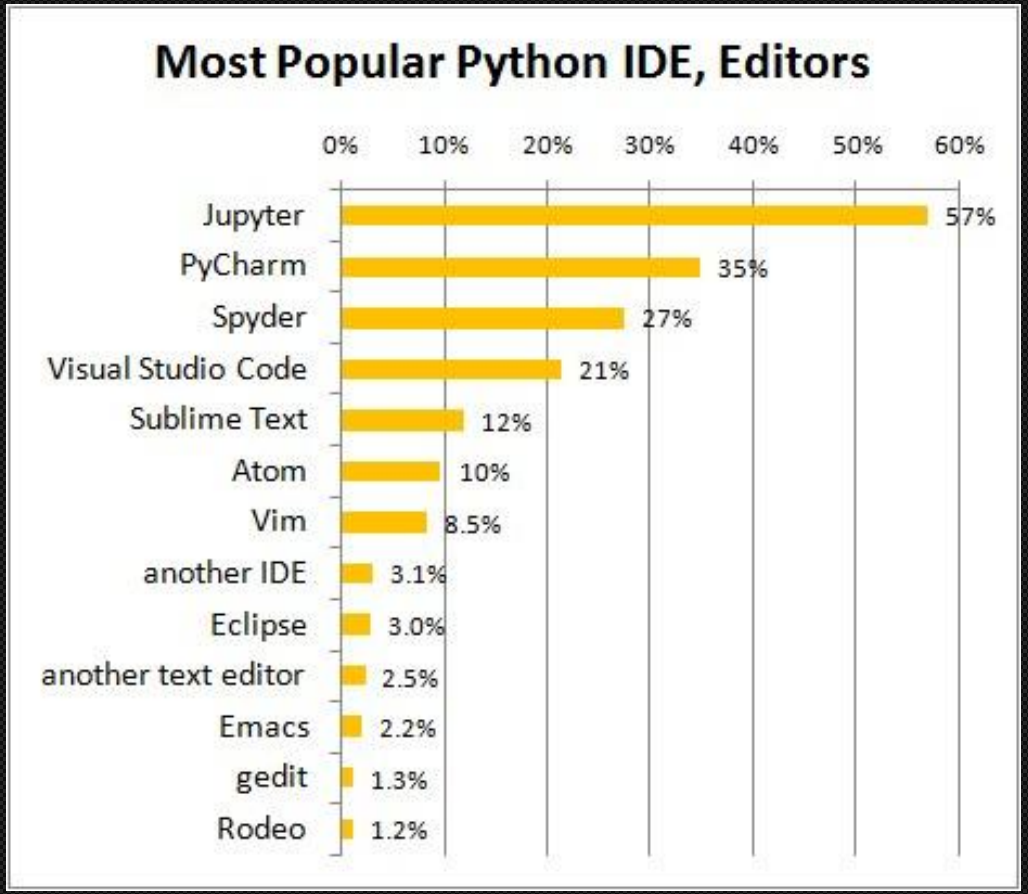
Jupyter Notebook

The Jupyter Notebook is the original web application for creating and sharing computational documents. It offers a simple, streamlined, document-centric experience.

It is an interactive computational environment, in which you can combine code execution, rich text, mathematics, plots and rich media.


Most Popular Python IDE, Editors
0%
10%
20%
30%
40%
50%
60%
Jupyter
57%
PyCharm
35%
Spyder
27%
Visual Studio Code
21%
Sublime Text
12%
Atom
10%
Vim
8.5%
another IDE
3.1%
Eclipse
3.0%
another text editor
2.5%
Emacs
2.2%
gedit
1.3%
Rodeo
1.2%

Practice Question - 1

How do you write a single-line comment in Python?

a) // This is a comment

b) # This is a comment

c) /* This is a comment */

d) <!-- This is a comment -->

Practice Question - 2

How do you write a multi-line comment in Python?

a) /* This is a multi-line comment */

b) // This is a multi-line comment

c) '' '' '' This is a multi-line comment '' '' ''

d) <!-- This is a multi-line comment -->

Practice Question - 3

Which of the following statements is true about Python?

a) Python is a statically typed language.

b) Python is not suitable for machine learning tasks.

c) Python is not an open-source language.

d) Python uses indentation to define code blocks.

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theiscale.founders

Siblings - Nishant Dhote & Swati Dhote

Day 1 - Installation of Annaconda Navigator into the system & Launching of Jupyter Notebook

writing the first "hello world" Proagram

In [12]:
```
print("hello world")
```

```
hello world
```

In [13]:
```
print(2+3)
```

```
5
```

In [14]:
```
import sys
sys.version
```

Out[14]:
```
'3.9.13 (main, Aug 25 2022, 23:51:50) [MSC v.1916 64 bit (AMD64)]'
```

python comments

Creating a Comment

In [15]:
```
#This is a comment
print("Hello, World!")
```

```
Hello, World!
```

In [16]:
```
print("Hello, World!") #This is a comment
```

```
Hello, World!
```

In [17]:
```
#print("Hello, World!")
print("this is python class")
```

```
this is python class
```

Multiline Comments

In [18]:
```
#This is a comment 1
#This is a comment 2
#This is a comment 3
print("Hello, World!")
```

```
Hello, World!
```

In [19]:
```
"""This is a comment 1 """
print("hello world")
```

```
hello world
```

In [ ]: