

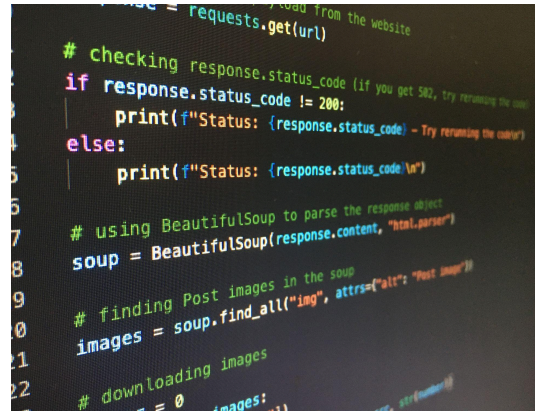
What Is Python?



Python is a popular high-level object-oriented programming language.

A **high-level language** is one that is designed to be relatively easy for humans to read and write, compared to a **low-level language** which is closer to the language of computer hardware and requires more technical knowledge to deal with. **Assembly language** and **machine code** are examples of low-level languages.

Python is a **dynamically-typed language**, meaning you don't need to declare the data type of a variable before using it. It's also an **interpreted language**, meaning that the code is executed line-by-line at runtime rather than being compiled beforehand. These terms probably don't mean anything to you yet, but don't worry! They will.

A photograph of a computer screen displaying Python code. The code is color-coded and includes comments. It shows a request being made, a status check, parsing with BeautifulSoup, finding all 'img' tags, and a loop for downloading images.

```
1 # Load from the website
2 response = requests.get(url)
3
4 # checking response.status_code (if you get 502, try rerunning the code)
5 if response.status_code != 200:
6     print(f"Status: {response.status_code} - Try rerunning the code")
7 else:
8     print(f"Status: {response.status_code}")
9
10 # using BeautifulSoup to parse the response object
11 soup = BeautifulSoup(response.content, "html.parser")
12
13 # finding Post images in the soup
14 images = soup.find_all("img", attrs={"alt": "Post image"})
15
16 # downloading images
17 for i, image in enumerate(images):
18     # ... (code for downloading) ...
```

Python is an excellent first programming language choice. Its design philosophy emphasizes code readability, making it easier for programmers to write clear and intuitive code for both small and large projects. It includes a robust standard library that allows programmers to quickly jump in and get started; sometimes it's referred to as the "Lego" of programming languages. Major companies like Google, Instagram, Netflix, and Spotify use Python in their apps.

That said, Python may not be the best choice for everyone. Some beginners might prefer something like Java, which enforces static typing and might illustrate some fundamental programming concepts more clearly. Ultimately, the choice of a first programming language depends on an individual's learning style.