Python Programming

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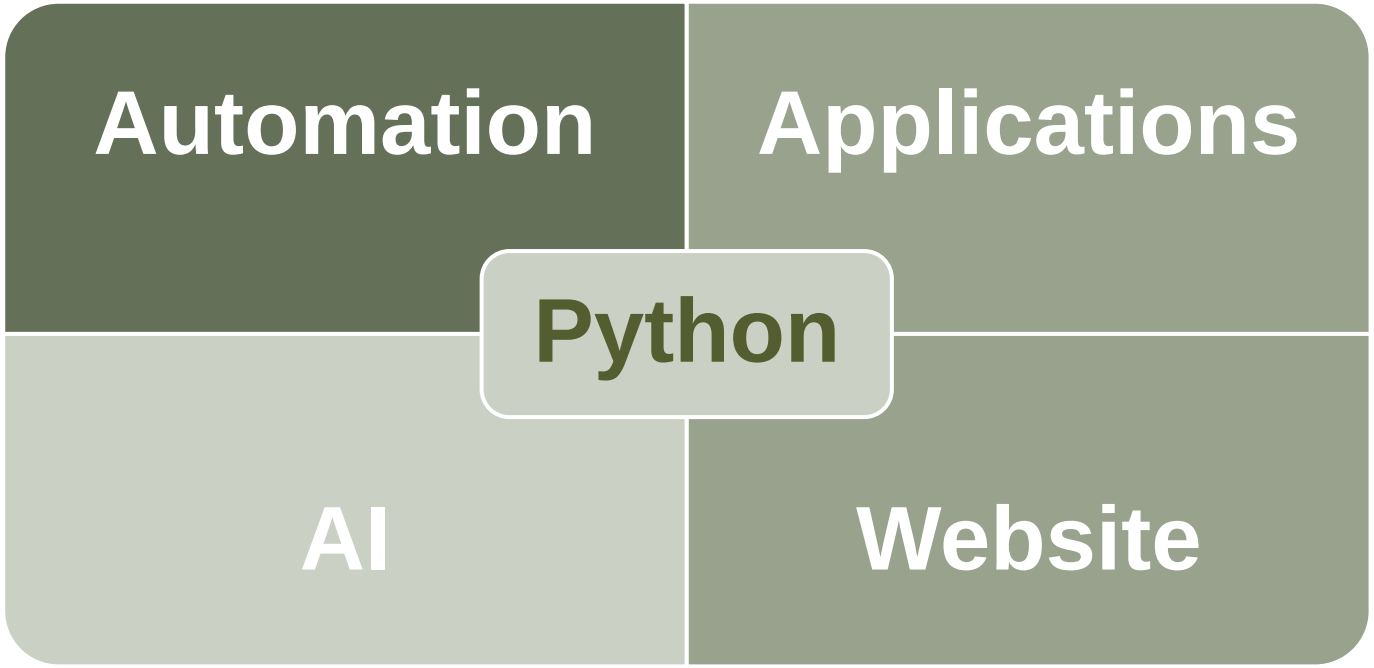
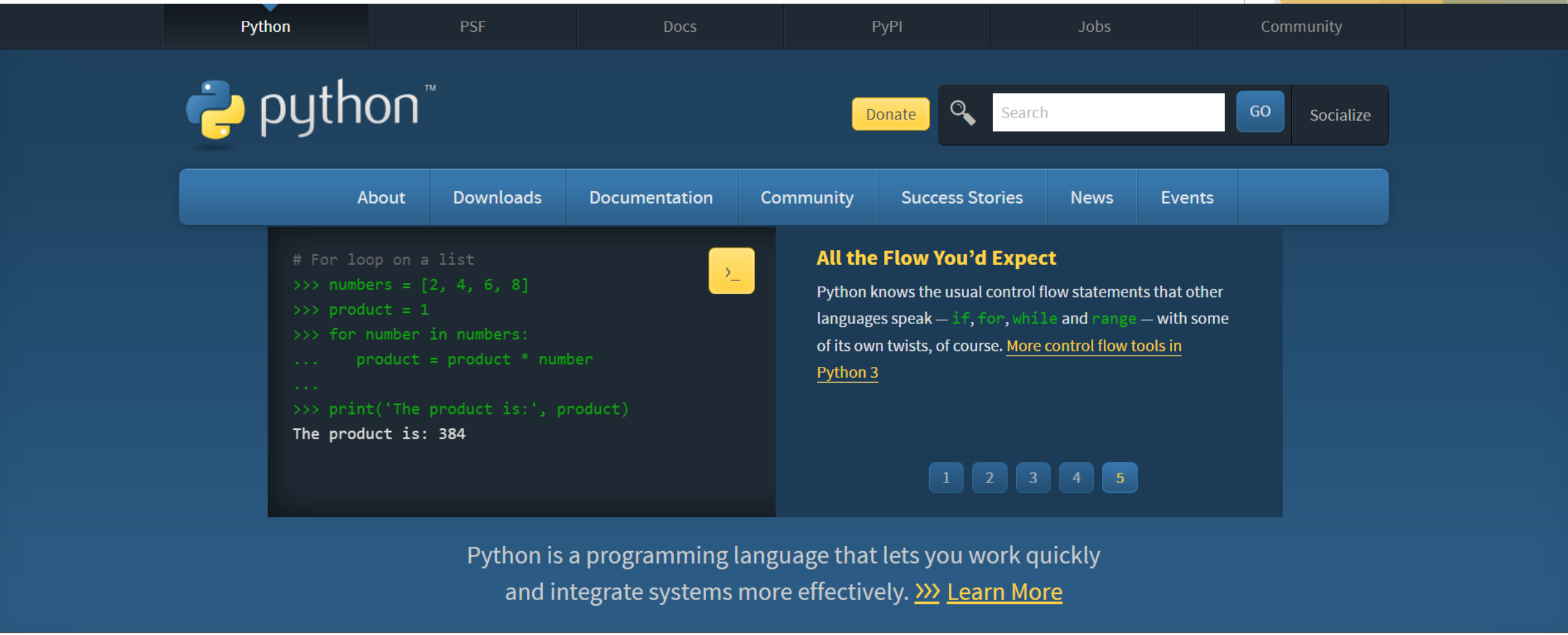
What is Python?



What is Python?

https://www.python.org/



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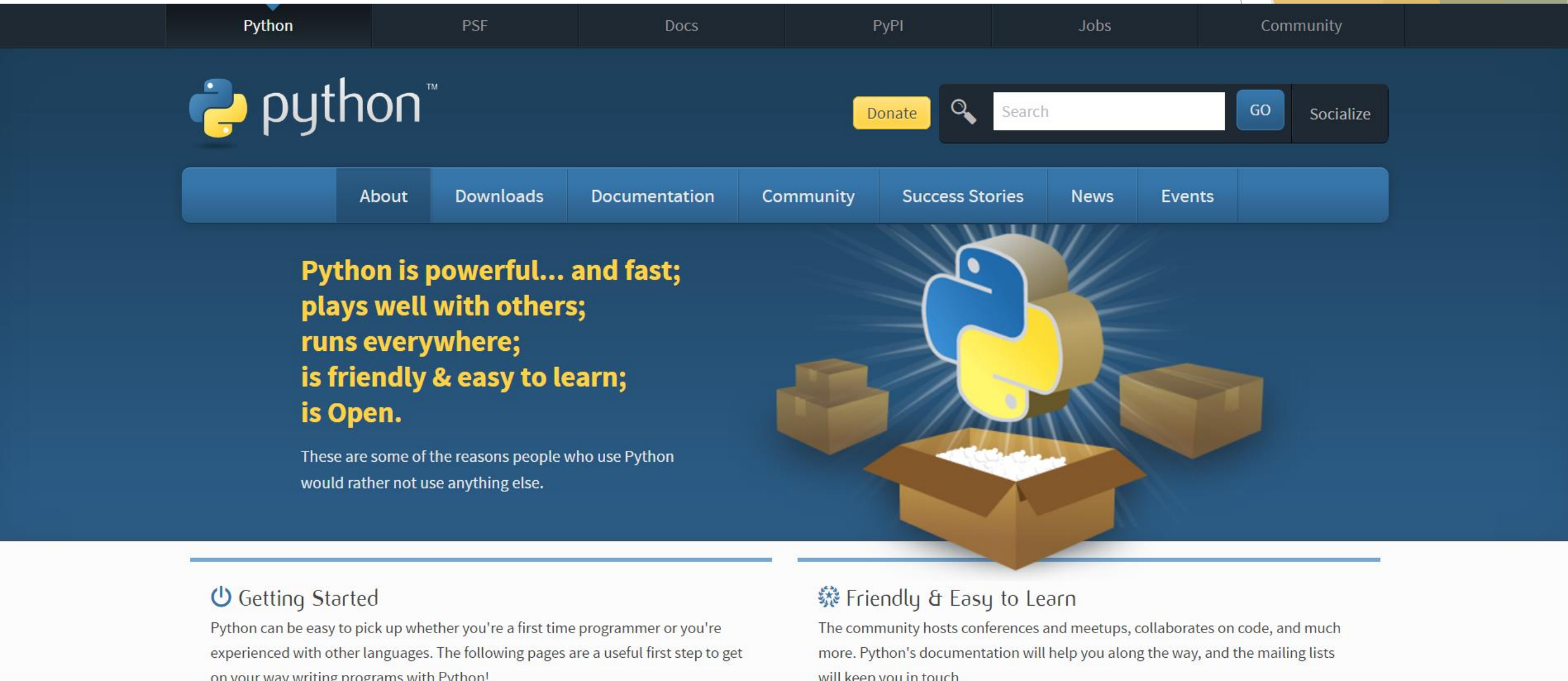

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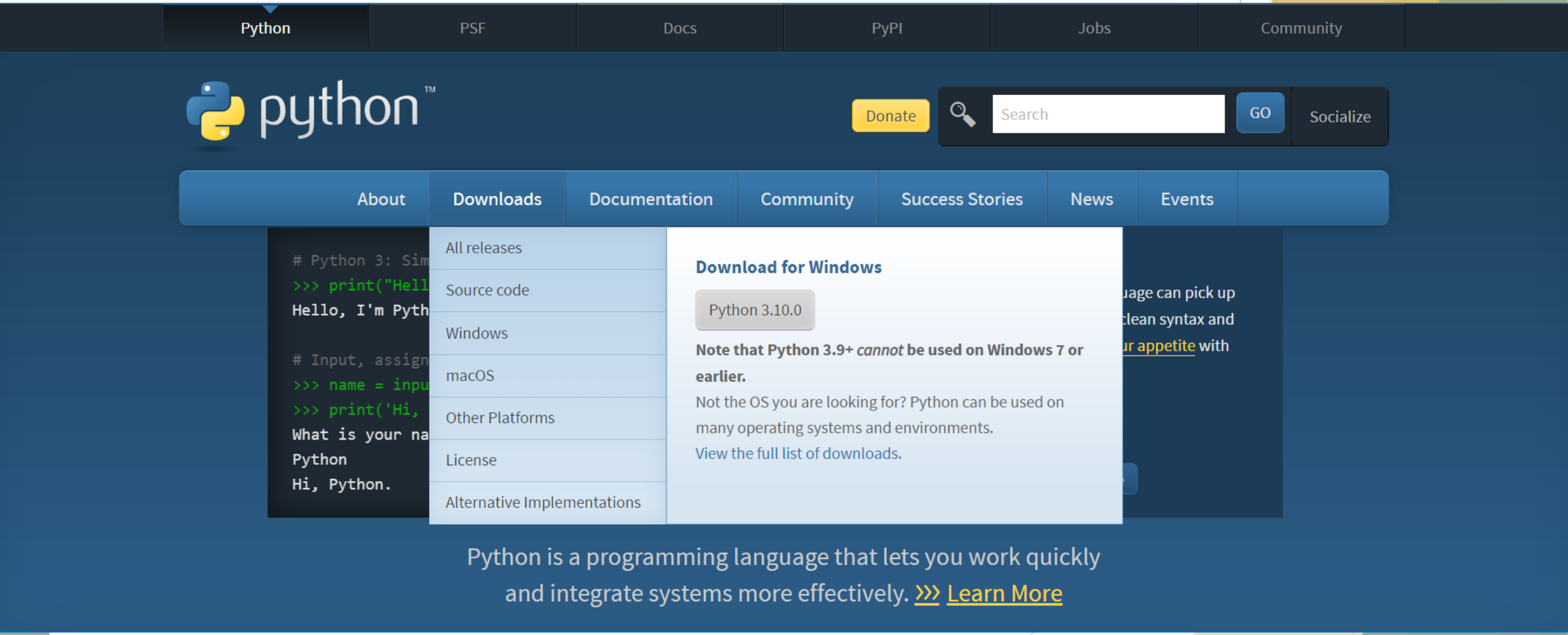
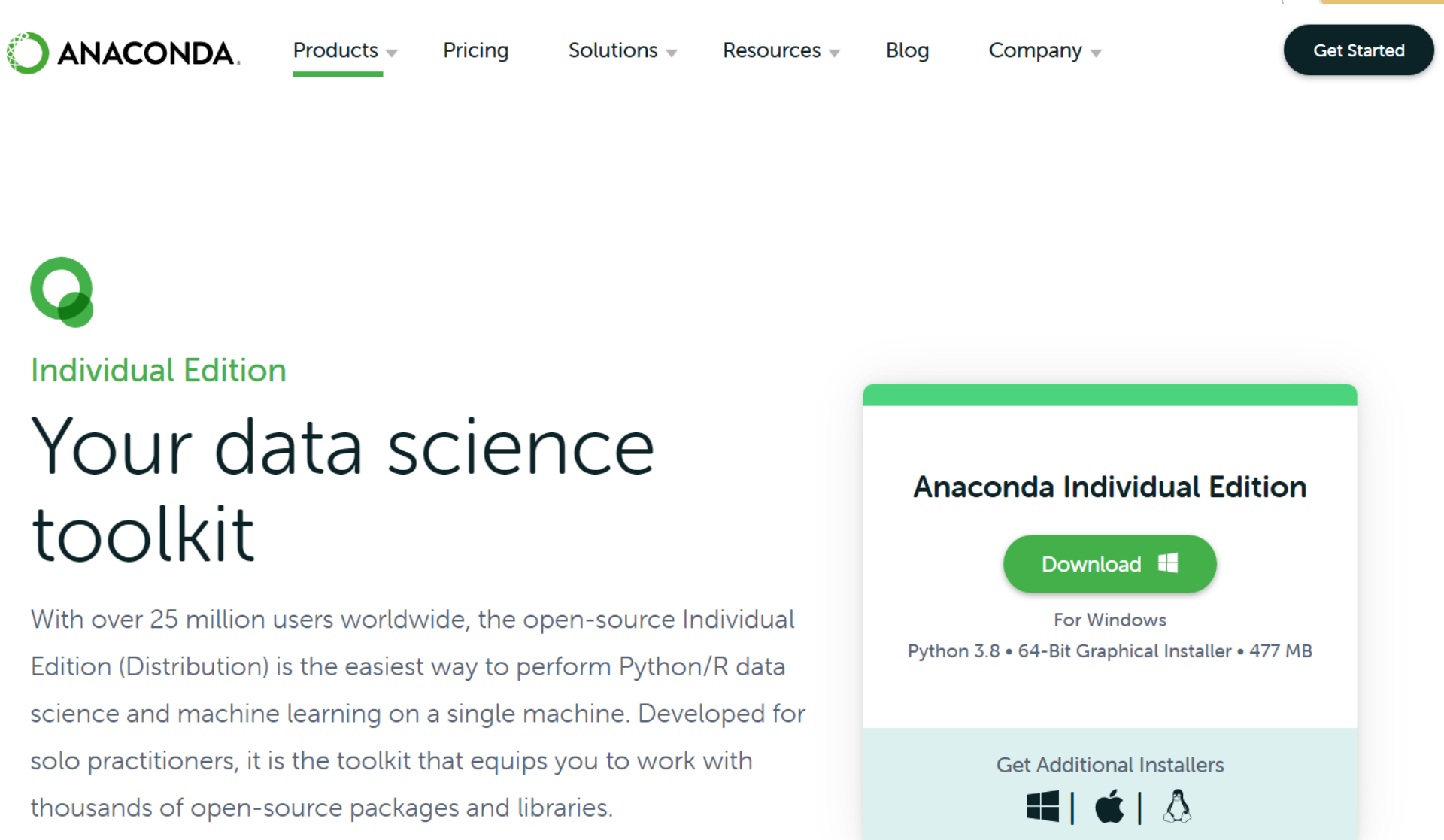


What is Python?

Platform

https://www.anaconda.com/



Platform

https://www.anaconda.com/

Open Source

Anaconda Individual Edition is the world's most popular Python distribution platform with over 25 million users worldwide. You can trust in our long-term commitment to supporting the Anaconda open-source ecosystem, the platform of choice for Python data science.

Conda Packages

Search our cloud-based repository to find and install over 7,500 data science and machine learning packages. With the conda-install command, you can start using thousands of open-source Conda, R, Python and many other packages.

Manage Environments

Individual Edition is an open source, flexible solution that provides the utilities to build, distribute, install, update, and manage software in a cross-platform manner. Conda makes it easy to manage multiple data environments that can be maintained and run separately without interference from each other.

Platform

https://www.anaconda.com/

Build machine learning models

Build and train machine learning models using the best Python packages built by the open-source community, including scikit-learn, TensorFlow, and PyTorch.

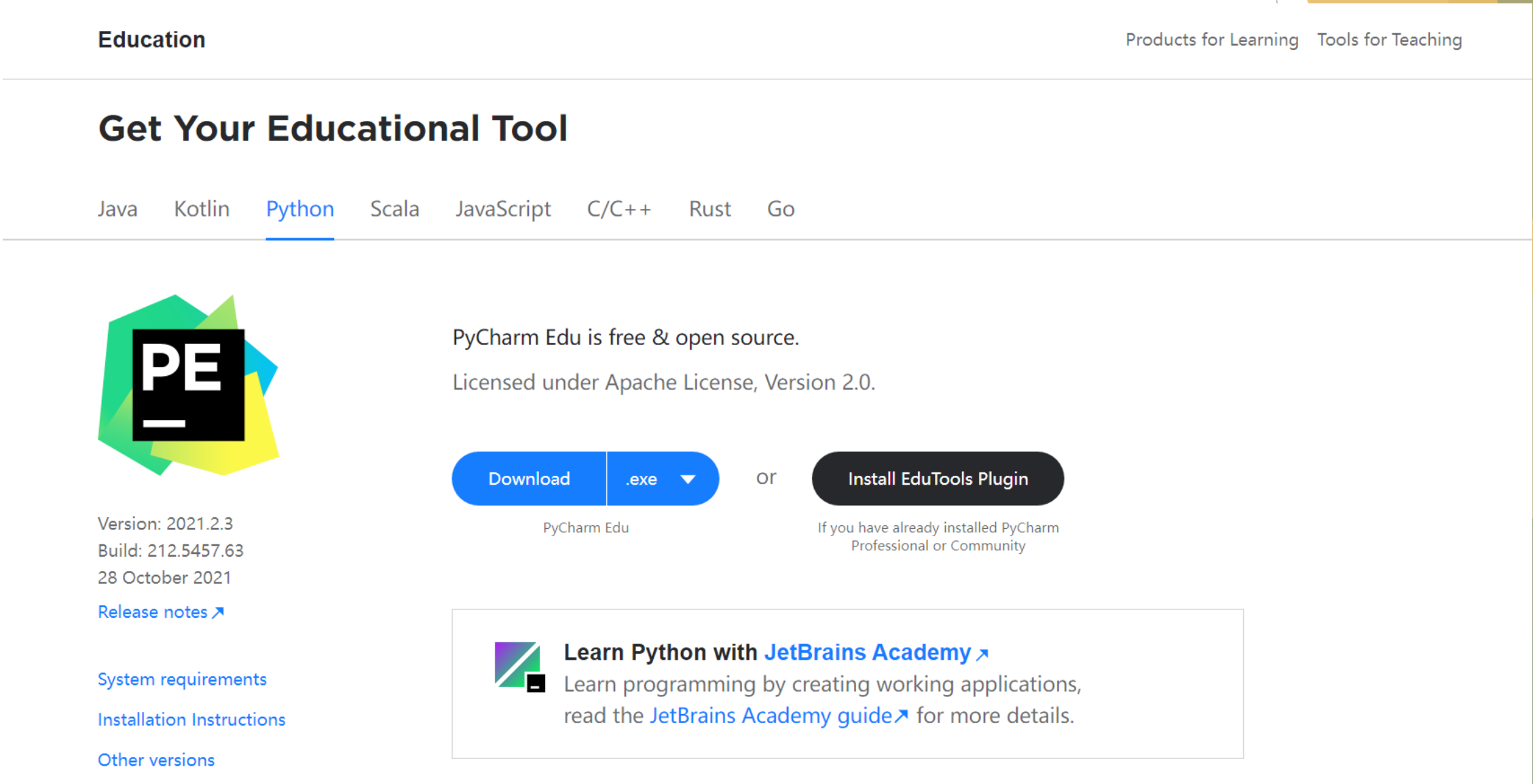
Get Started

Platform

https://www.jetbrains.com/pycharm/

Platform

https://www.jetbrains.com/edu-products/download/#section=pycharm-edu



First Python Program

```
print("Hello World!")
```

First Python Program

```
print("Hello World!")
print("*" * 10)
print('o----')
print(' ||||’)
print(5 * 10)
print('I'm Jian Zhang')
print("I'm Jian Zhang")
```

Input()

```
name = input('What is your name? ')
```

Input()

```
name = input('What is your name? ‘)
print('Hi ' + name)

name = input('What is your name? ')
age = input('What is your age? ')
print(name + ' is ' + age + ' years old.')
```

Primitive Types

```
students_count = 1000
rating = 4.99
is_published = False
course_name = "Python Programming"
print(students_count)
print(rating)
print(course_name)
print(len(course_name))
print(course_name[0])
print(course_name[-2])
print(course_name[0:5])
```

Primitive Types

```
students_count = 1000
rating = 4.99
is_published = False
course_name = "Python Programming"
print(type(students_count))
print(type(rating))
print(type(is_published))
print(type(course_name))
print(id(rating))
print(id(students_count ))
```

Formatted String

```
first_name = "Jian"
last_name = "Zhang"
full_name = first_name + " " + last_name
print(full_name)
full_name_formated = f"{first_name} {last_name}"
print(full_name_formated)
```

Escape Character

```
course_full_name = "Python Programing with \"Mosh\""
print(course_full_name)
course_full_name = "Python Programing with \'Mosh\'"
print(course_full_name)
course_full_name = "Python Programing with \\Mosh\\"
print(course_full_name)
course_full_name = "Python Programing with \nMosh"
print(course_full_name)
```

String Methods

```
course_name_python = "  python programming for beginners    "
print(course_name_python.upper())
print(course_name_python.lower())
print(course_name_python.title())
print(course_name_python.find("gram"))
print(course_name_python.replace("p", "P"))
print("pro" in course_name_python)
print("abc" in course_name_python)
```

Numbers

```
x = 3
y = 3.1
z = 3 + 2j
print(10 + 3)
print(10 - 3)
print(10 * 3)
print(10 / 3)
print(10 // 3)
print(10 % 3)
print(10 ** 3)
x = x + 3
print(x)
y += 3
print(y)
print(z)
```

Numbers

```
import math

print(round(2.9595, 2))
print(abs(-5.4))
print(math.ceil(8.2))
print(math.floor(4.9))

average = 2.9
print(f"{average:.2f}")
```

Type Conversion

```
x = input("x: ")
print(type(x))

y = int(x) + 5
print(f"x: {x} ; y: {y}")

print(bool(""))
print(bool(0))
print(bool(None))
print(bool(2))
```

Quiz

What are the primitive types in Python?

```
fruit = "Apple"
print(fruit[1])
```

```
fruit = "Apple"
print(fruit[1:-1])
```

```
print(10 % 3)
```

```
print(bool("False"))
```

Homework

- Install Anaconda or PyCharm and execute all the codes mentioned before.

Questions?