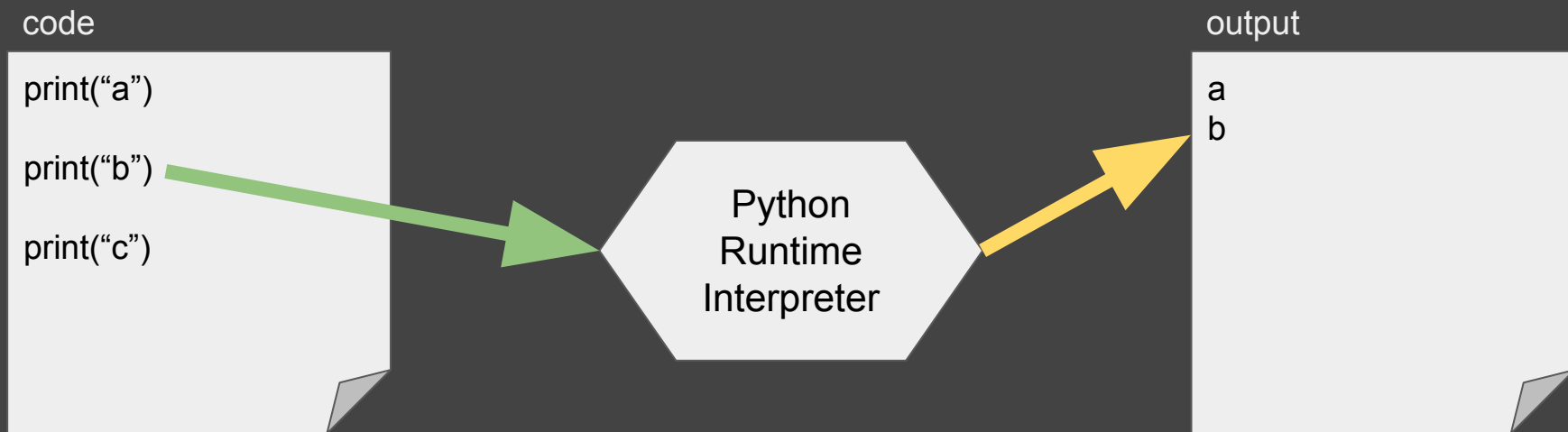# Python 101

Rahul Sharma

What is Python?

- Python is a general purpose programming language
- Python is a high-level language
- Python is an interpreted languages
- Python is powerful
- Python runs everywhere
- Python is friendly and Easy to learn
- Python is Open

Why Python?

- Python, the fastest-growing major programming language.
- Python is second most loved language (behind Rust).
- Python is associated with higher salaries than Java, C/C++
- Python is used in wide variety of fields like web development, AI, automation, embedded, scripting etc.
- Vast library across multiple domains
- Most testing frameworks uses python
- Python is high level languages

source : https://insights.stackoverflow.com/survey/2019

How Python works?

Python is a high-level, interpreted language.

code

```
print("a")

print("b")

print("c")
```

Python
Runtime
Interpreter

output

```
a
b
```

High-level syntax cannot be directly converted to machine code.

Which IDE/editor to use?

- You can use any IDE/editor for python.
- Popular choices are:
  - Visual Studio Code (my choice)
  - Visual Studio
  - Notepad++
  - Sublime Text
  - PyCharm
  - Vim
  - Eclipse etc.

Visual Studio Code

- It is the most Popular Development Environments in 2019
- Officially supports Python
- It's free and Open source
- Supports Windows, Mac and Linux
- Vast number of extensions are available
- Supports Autocomplete and IntelliSense
- Supports Code formatting and Debugging

Visit https://code.visualstudio.com/

Hello World

Python is one of the most readable languages out there, we can print data on the terminal by simply using the `print` statement.

hello.py

```
print("hello world")
```

output

```
hello world
```

Where can I practice online?

- You can also code and run program on your browsers using:
  - https://repl.it/languages/python3
  - https://www.onlinegdb.com/online_python_compiler
- You can also register on these sites for practicing:
  - https://www.hackerrank.com/
  - https://leetcode.com/
  - https://www.hackerearth.com/
  - https://codeforces.com/
- Going to hackerrank and solving python is recommended.