

# PYTHON PROGRAMMING

Day 1 - Introduction to Python

1  
**What is Python?**



8  
**CASTING**

2  
**WHY USE PYTHON?**



4  
**HOW TO EXECUTE CODE?**



6  
**VARIABLES**



3  
**REQUIREMENTS**

5  
**INDENTATION**



9  
**input() FUNCTION**



7  
**DATA TYPES**



# What is Python?

- Python is an interpreted, object-oriented, high-level programming language.
- Python byte code is executed in the Python interpreter (similar to Java) -> platform independent.
- It was created by Guido van Rossum and released in 1991.

# PYTHON PROGRAMMING

Day 1 - Introduction to Python

## What is Python?

Python  
Programmin

## WHY USE PYTHON?



## HOW TO EXECUTE CODE?

## REQUIREMENTS

## INDENTATION

## VARIABLES

## input() FUNCTION

## DATA TYPES



## CASTING

9

input()  
FUNCTION

7

DATA  
TYPES



4

HOW TO EXECUTE  
CODE?

3

REQUIREMENTS



6

VARIABLES



5

INDENTATION



8

CASTING

2

WHY USE  
PYTHON?



# Why use Python?

- Readable and Maintainable Code
- Compatible with Major Platforms and Systems
- Robust Standard Library
- Many Open Source Frameworks and Tools
- Simplify Complex Software Development
  - Web Applications
  - Script for Vulnerability Testing
  - For Data Science and Data Visualization
  - Machine Learning

# PYTHON PROGRAMMING

Day 1 - Introduction to Python

What is  
Python?

Python  
Programmin

CASTING

WHY USE  
PYTHON?



HOW TO EXECUTE  
CODE?

VARIABLES

REQUIREMENTS

INDENTATION

input()  
FUNCTION

DATA  
TYPES



5



3

6

4

8

9

7

# Requirements

- Python 3.9.0 Interpreter
- Text Editor
  - Sublime
  - VS Code
- IDE
  - PyCharm
  - Anaconda
  - Visual Studio Code

- Google Classroom:

- Class Code:

**bs7jeqt**



# PYTHON PROGRAMMING

Day 1 - Introduction to Python

What is  
Python?

Python  
Programmin

CASTING

WHY USE  
PYTHON?



HOW TO EXECUTE  
CODE?

VARIABLES

REQUIREMENTS

INDENTATION

input()  
FUNCTION

DATA  
TYPES



9

7

8

4

6

5

# How to execute Python code?

- IDLE (IDLE is Python's Integrated Development and Learning Environment)
- Execute via Command Line (Windows)
- Utilize Online Python Interpreter ([onlinegdb.com/online\\_python\\_interpreter](https://onlinegdb.com/online_python_interpreter))



# PYTHON PROGRAMMING

Day 1 - Introduction to Python

What is  
Python?

Python  
Programmin

CASTING

WHY USE  
PYTHON?



HOW TO EXECUTE  
CODE?



VARIABLES



INDENTATION



REQUIREMENTS

DATA  
TYPES



input()  
FUNCTION



8

9

7

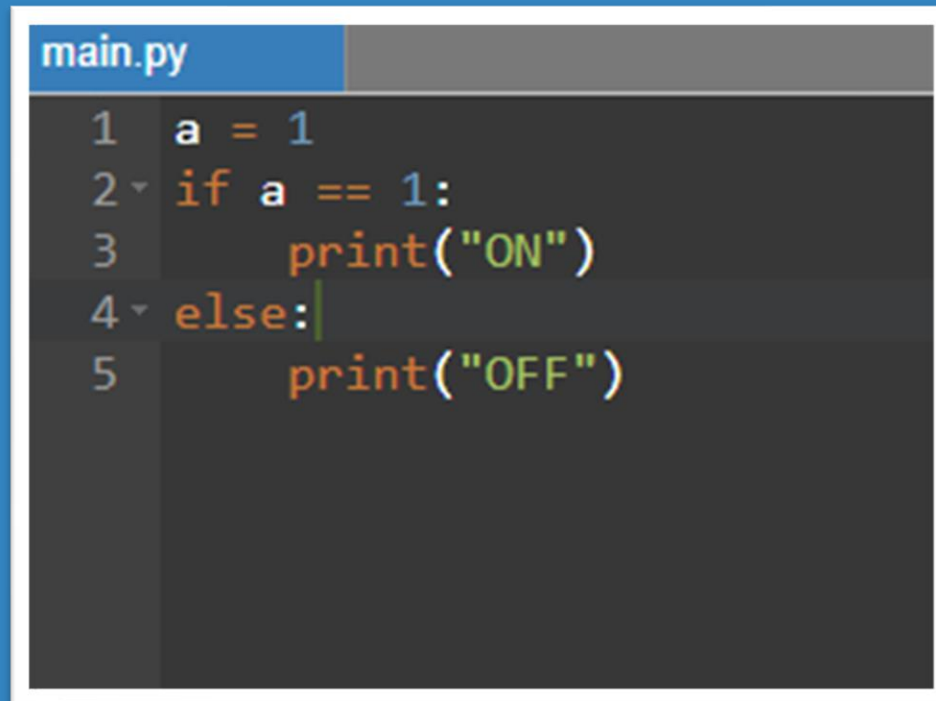
6

5

# Indentation

- Python uses indentation to indicate code block.

Example:

A screenshot of a code editor window titled 'main.py'. The editor has a dark background with light-colored text. The code is as follows:

```
1 a = 1
2 if a == 1:
3     print("ON")
4 else:
5     print("OFF")
```

The code uses indentation to define a code block for the 'if' statement. The first line is 'a = 1'. The second line is 'if a == 1:'. The third line is ' print("ON")', which is indented. The fourth line is 'else:'. The fifth line is ' print("OFF")', which is also indented. The lines are numbered 1 through 5 on the left side of the editor.

# PYTHON PROGRAMMING

Day 1 - Introduction to Python

What is  
Python?

Python  
Programmin

CASTING

WHY USE  
PYTHON?



HOW TO EXECUTE  
CODE?



VARIABLES

REQUIREMENTS

INDENTATION



input()  
FUNCTION



DATA  
TYPES



9

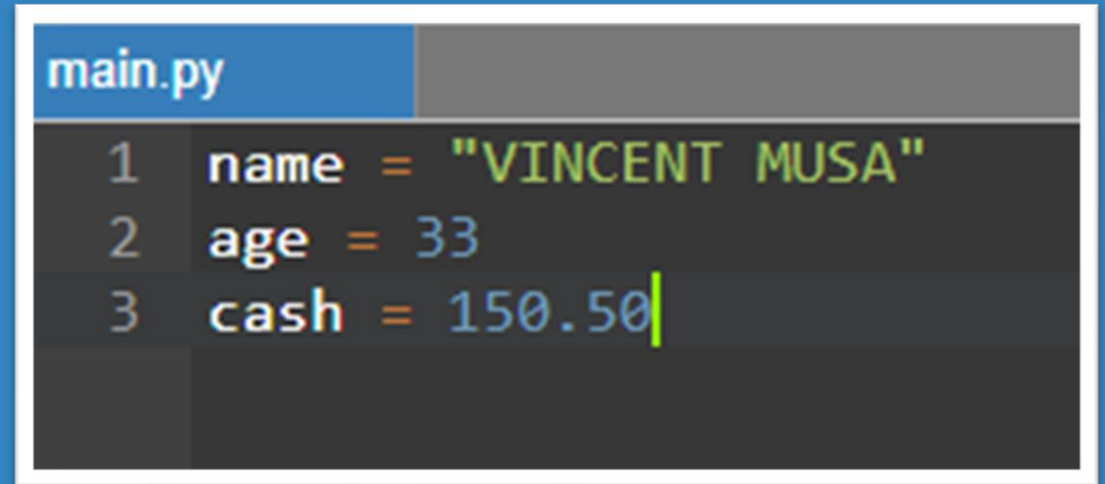
7

8

6

# Variables

- Variables are containers for storing data values.
- A variable is created the moment you first assign a value to it.

A screenshot of a code editor window with a dark background. The title bar at the top left shows the filename 'main.py'. The editor contains three lines of Python code, each preceded by a line number in a light gray margin. The code defines three variables: 'name' with the string value 'VINCENT MUSA', 'age' with the integer value 33, and 'cash' with the float value 150.50. A green vertical cursor is positioned at the end of the third line.

```
main.py
1  name = "VINCENT MUSA"
2  age = 33
3  cash = 150.50
```

# PYTHON PROGRAMMING

Day 1 - Introduction to Python

What is  
Python?

Python  
Programmin

CASTING

WHY USE  
PYTHON?



HOW TO EXECUTE  
CODE?

input()  
FUNCTION

DATA  
TYPES



VARIABLES



REQUIREMENTS

INDENTATION



9

7

8

# Data Types

- Type of data stored in a variable
  - String
  - Integer
  - Float
  - Boolean
  - Bytes

```
main.py
1  name = "VINCENT MUSA"
2  age = 33
3  cash = 150.50
```



9

input()  
FUNCTION



What is  
Python?



8

CASTING

WHY USE  
PYTHON?



DATA  
TYPES



HOW TO EXECUTE  
CODE?

# PYTHON PROGRAMMING

Day 1 - Introduction to Python

REQUIREMENTS



VARIABLES



INDENTATION





# Casting

- Converting one data type to another is known as casting.

```
main.py
1  x = int(10)
2  print("Number is " + str(x))
3
4  x = "10"
5  y = "10"
6  print(int(x) + int(y))
7
```

9

input()  
FUNCTION



What is  
Python?



CASTING

WHY USE  
PYTHON?



DATA  
TYPES



HOW TO EXECUTE  
CODE?

# PYTHON PROGRAMMING

Day 1 - Introduction to Python

REQUIREMENTS



VARIABLES



INDENTATION



# Day 1: Activity #1

1. Create 5 Variables (Name (string), Math Grade (float), Science Grade (float), English Grade (integer), Status (string))
2. Assign appropriate value
3. Display the result:  
Name: \_\_\_\_\_  
Math Grade: \_\_\_\_\_  
Science Grade: \_\_\_\_\_  
English Grade: \_\_\_\_\_  
Status: \_\_\_\_\_
4. Screenshot the code and use the filename: lastname\_firstname\_activity1.png/jpeg

9

input()  
FUNCTION



What is  
Python?



CASTING

WHY USE  
PYTHON?



DATA  
TYPES



HOW TO EXECUTE  
CODE?

# PYTHON PROGRAMMING

Day 1 - Introduction to Python

REQUIREMENTS



VARIABLES



INDENTATION



# input() Function

- Accepts user's input

```
name = input("Enter Full Name: ")
email = input("Enter Email: ")
print("Name: " + name)
print("Name: " + email)
```

# PYTHON PROGRAMMING

Day 1 - Introduction to Python

input()  
FUNCTION



## What is Python?



CASTING

## WHY USE PYTHON?



## DATA TYPES



## HOW TO EXECUTE CODE?

## REQUIREMENTS



## VARIABLES



## INDENTATION



# Day 1: Activity #2

1. Create 5 Variables and use input function to accept (Name (string), Math Grade (float), Science Grade (float), English Grade (integer), Average(float))
2. Assign appropriate value
3. Display the result:  
Name: \_\_\_\_\_  
Math Grade: \_\_\_\_\_  
Science Grade: \_\_\_\_\_  
English Grade: \_\_\_\_\_  
Average: \_\_\_\_\_
4. Screenshot the code and use the filename: lastname\_firstname\_activity2.png/jpeg



# PYTHON PROGRAMMING

Day 1 - Introduction to Python

input()  
FUNCTION



## What is Python?



CASTING

## WHY USE PYTHON?



## DATA TYPES



## HOW TO EXECUTE CODE?

## REQUIREMENTS



## VARIABLES



## INDENTATION



**THANK**

**YOU!**