

Introduction to Python

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What Python is and what's so great about it ?

What is PYTHON ?



Developed by **Guido Van Rossum** in the year 1990.

What's so great about it ?

1. Python is easy to use
2. Python is powerful
3. Python is object oriented
4. Python is a “Glue” Language
5. Python runs everywhere
6. Python has a strong community
7. Python is free and open-source



Features of Python

- Simple
- Easy to learn
- Open source
- High Level Language
- Dynamically typed
- Platform Independent
- Portable
- Procedure and Object Oriented



Execution of a Python Program

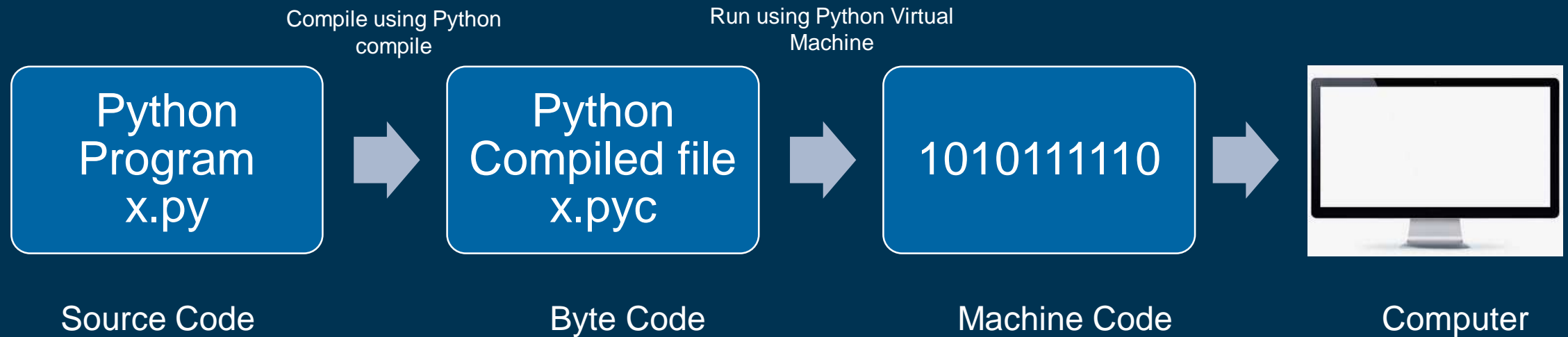


Figure 1: Steps of Execution of a Python Program

Python Virtual Machine (PVM)

- A compiler normally converts the program source code into machine code.
- Python compiler converts the program source code into another code, called **byte code**.
- **PVM** convert the byte code instructions into machine code.

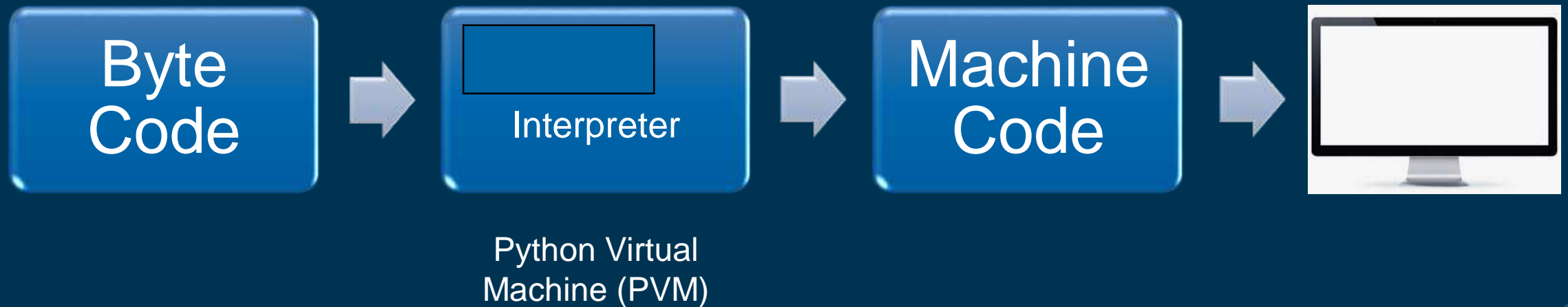


Figure 2: The Python Virtual Machine

**WHAT IS THE FIRST THING THAT COMES TO YOUR MIND
WHEN YOU HEAR THE WORD**

How to install Python on your computer ?

<https://www.python.org/downloads/>

How to print text to the screen ?

Writing Our First Program

```
print ("HELLO WORLD")
```

Program Structure of Python

First Python Program

First Program to add two numbers

a = 10

b = 20

c = a + b

print("Addition of Two numbers : ", c)



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- The image features the Python logo, which consists of two interlocking snakes, one blue and one yellow. The logo is set against a dark blue background that contains faint, white Python code snippets. Below the logo, the word "python" is written in a large, yellow, lowercase font.

What comments are and how to use them ?

Comments in Python

1. Single Line Comments

- Starts with # symbol

2. Multi Line Comments

- “ “ “ (Triple Double Quotes)
- ‘ ‘ ‘ (Triple Single Quotes)



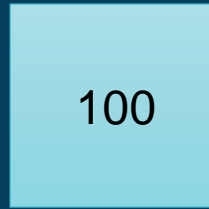
How to use Python's IDE to write, edit, run and save your programs?

How Python Sees Variables

- `a = 12`
- `a = 100`



a



a

- In Python, variable is seen as a tag (or name) that is tied to some value.