

# Python

## Learning Python Programming Language

Nguyen Phu Phong

KASE Edu Co.Ltd  
*nguyenphuphong@gmail.com*

Ho Chi Minh  
April 19, 2022

# Presentation Overview

① Getting Started

② LaTeX Templates

# Getting Started

# What is Python?

Python is a popular programming language. It was created in 1991 by Guido van Rossum.

Python is an easy to learn, powerful programming language. It has efficient high-level data structures and a simple but effective approach to object-oriented programming. Python's elegant syntax and dynamic typing, together with its interpreted nature, make it an ideal language for scripting and rapid application development in many areas on most platforms.

# What can Python do?

- Python can be used on a server to create web applications.
- Python can be used alongside software to create workflows.
- Python can connect to database systems. It can also read and modify files.
- Python can be used to handle big data and perform complex mathematics.
- Python can be used for rapid prototyping, or for production-ready software development.

# Why Python?

- Python works on different platforms (Windows, Mac, Linux, Raspberry Pi, etc).
- Python has a simple syntax similar to the English language.
- Python has syntax that allows developers to write programs with fewer lines than some other programming languages.
- Python runs on an interpreter system, meaning that code can be executed as soon as it is written. This means that prototyping can be very quick.
- Python can be treated in a procedural way, an object-orientated way or a functional way.

# Prepare Development Environment

- Install Python.
- Install PyCharm or Visual Code.

# LaTeX Templates



# Blocks of Highlighted Text

## Block Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue.

## Example Block Title

Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan.

## Alert Block Title

Pellentesque sed tellus purus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos.

Suspendisse tincidunt sagittis gravida. Curabitur condimentum, enim sed venenatis rutrum, ipsum neque consectetur orci.

## Heading

- 1 Statement
- 2 Explanation
- 3 Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

# Table

Subtitle

<b>Treatments</b>	<b>Response 1</b>	<b>Response 2</b>
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

**Table:** Table caption

The logo for Creodocs, featuring the word "creodocs" in a bold, lowercase, sans-serif font. The letters are black and have a slightly rounded, friendly appearance. The 'c' and 'o's are particularly prominent.

Figure: Creodocs logo.

# Definitions & Examples

## Definition

A **prime number** is a number that has exactly two divisors.

## Example

- 2 is prime (two divisors: 1 and 2).
- 3 is prime (two divisors: 1 and 3).
- 4 is not prime (**three** divisors: 1, 2, and 4).

You can also use the `theorem`, `lemma`, `proof` and `corollary` environments.

# Theorem, Corollary & Proof

Theorem (Mass-energy equivalence)

$$E = mc^2$$

Corollary

$$x + y = y + x$$

Proof.

$$\omega + \phi = \epsilon$$



# Equation

$$\cos^3 \theta = \frac{1}{4} \cos \theta + \frac{3}{4} \cos 3\theta \quad (1)$$

## Example (Theorem Slide Code)

```
\begin{frame}  
\frametitle{Theorem}  
\begin{theorem}[Mass--energy equivalence]  
$E = mc^2$  
\end{theorem}  
\end{frame}
```



Slide without title.

# Citing References

An example of the `\cite` command to cite within the presentation:

This statement requires citation [Smith, 2022, Kennedy, 2023].

# References



John Smith (2022)

Publication title

*Journal Name* 12(3), 45 – 678.



Annabelle Kennedy (2023)

Publication title

*Journal Name* 12(3), 45 – 678.

# Acknowledgements

## Smith Lab

- Alice Smith
- Devon Brown

## Cook Lab

- Margaret
- Jennifer
- Yuan

## Funding

- British Royal Navy
- Norwegian Government

# The End

Questions? Comments?