

GEC 1506 – Lab 1

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Department of Computer Science

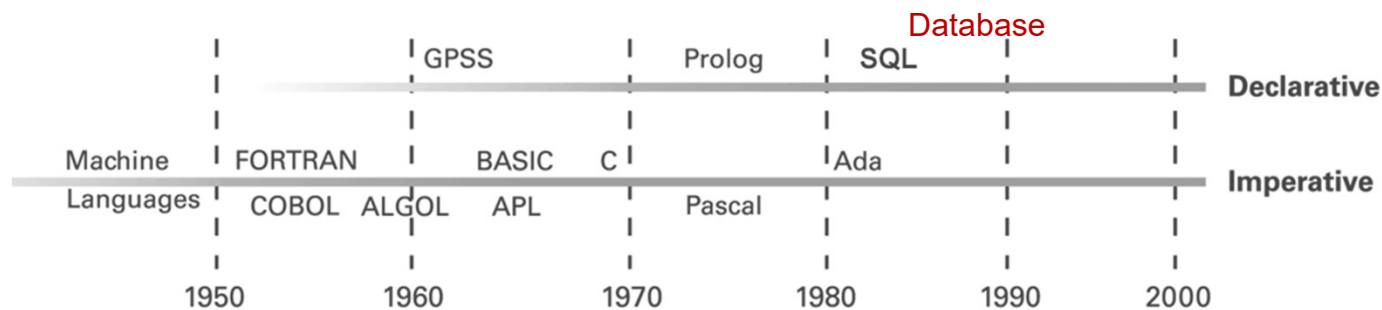
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yishin@gmail.com

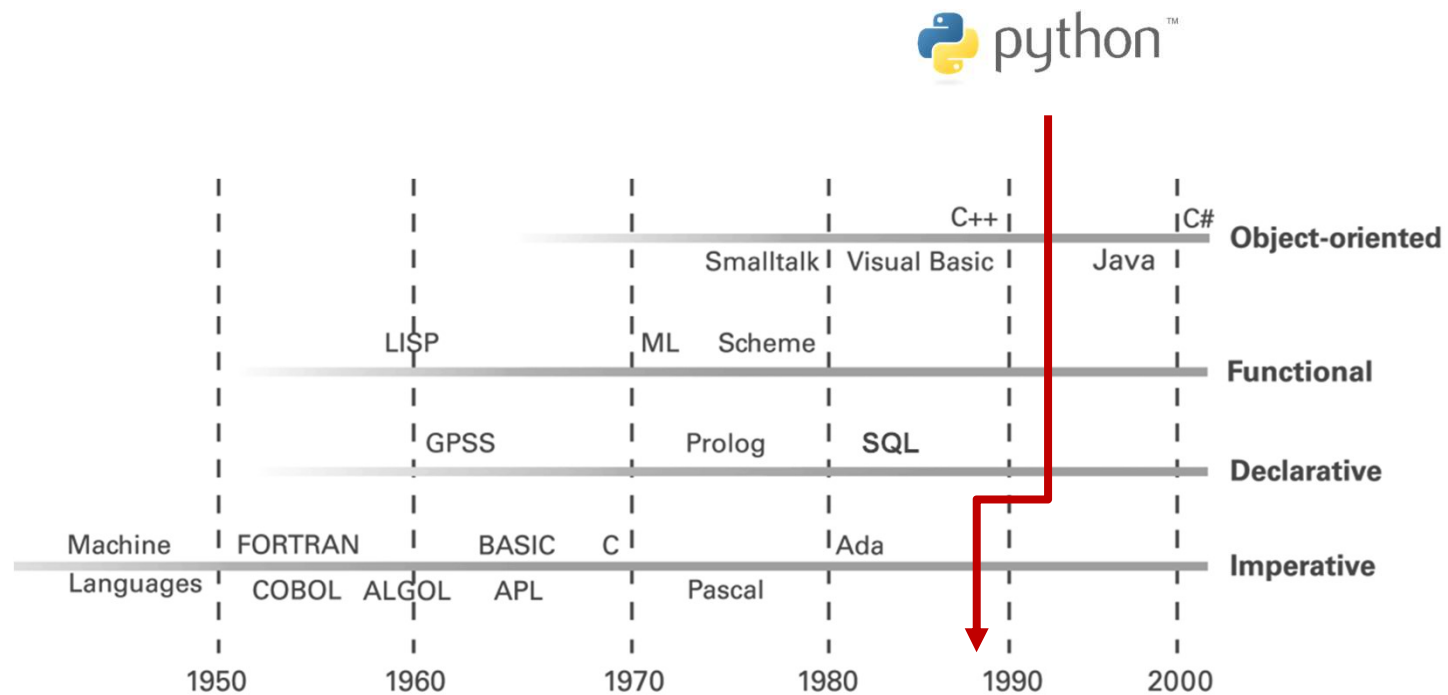
Python

Evolution Of Programming Paradigms

- Declarative programming
 - Expresses the logic of a computation
 - Without describing its control flow
- Imperative programming
 - Uses statements that change a program's state



Evolution Of Programming Paradigms



Logical Thinking of Informatics

Programming Language Rank

Feb 2024	Feb 2023	Feb 2022	Feb 2021	Feb 2017	Programming Language	Ratings
1	1	1	3	5	Python	15.49%
2	2	2	1	1	C	15.39%
3	3	4	4	3	C++	13.94%
4	4	3	2	2	Java	13.21%
5	5	5	5	4	C#	6.38%
6	7	9	9	9	Java Script	3.17%
7	8	-	-	-	SQL	1.82%
9	6	6	6	8	Visual Basic .NET	1.52%

<https://www.tiobe.com/tiobe-index/>

Python Installation & Environment

If you would like to set up the environment in your own computer

Installation Anaconda (Windows user)

<https://www.anaconda.com/products/individual#Downloads>

Anaconda Installers

Download python version > 3.6

Windows 

Python 3.9

64-Bit Graphical Installer (510 MB)

32-Bit Graphical Installer (404 MB)

Install the python through the setup guide.

MacOS 

Python 3.9

64-Bit Graphical Installer (515 MB)

64-Bit Command Line Installer (508 MB)

Linux 

Python 3.9

64-Bit (x86) Installer (581 MB)

64-Bit (Power8 and Power9) Installer (255 MB)

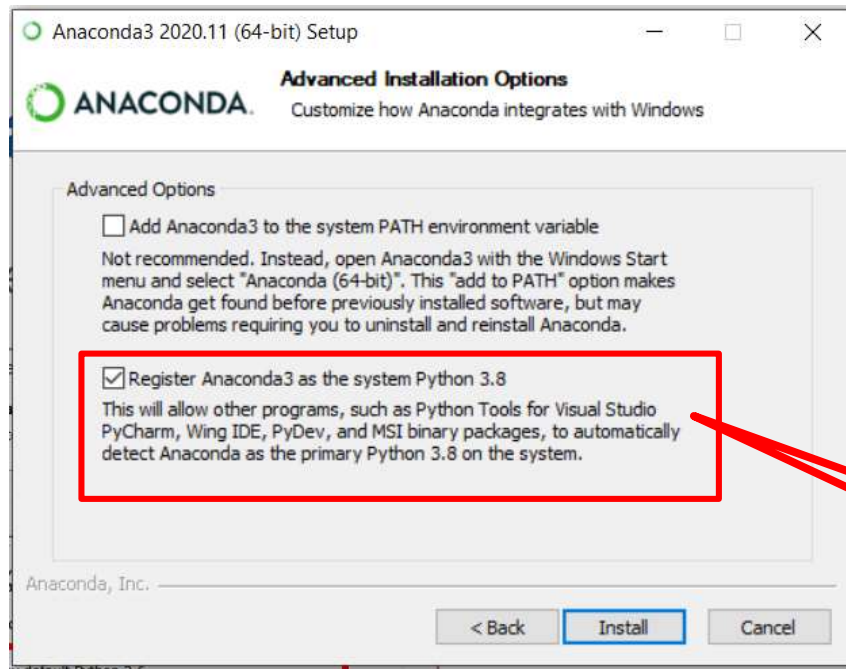
64-Bit (AWS Graviton2 / ARM64) Installer (488 M)

64-bit (Linux on IBM Z & LinuxONE) Installer (242 M)

Logical Thinking of Informatics

Installation

You will see the following options.



You can skip it, If you want to install more anaconda/python in different versions.

The two setting may cause some problems

Please select this

Installation Anaconda (Mac user)

<https://www.anaconda.com/products/individual#Downloads>

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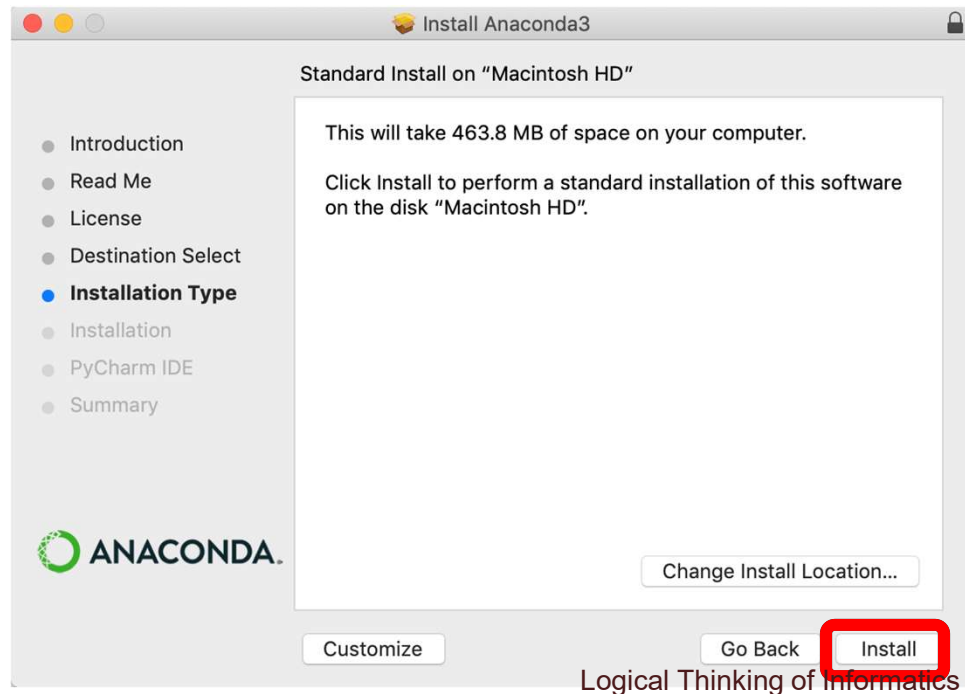
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Logical Thinking of Informatics

Installation

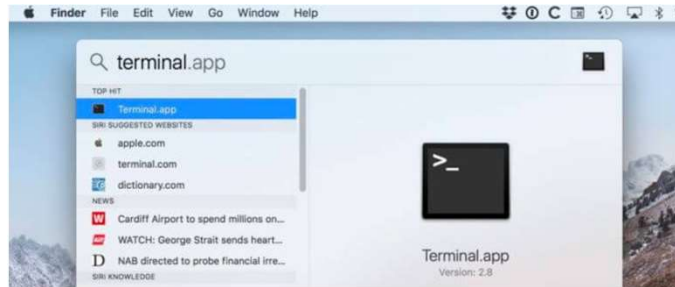
You will see the following options.



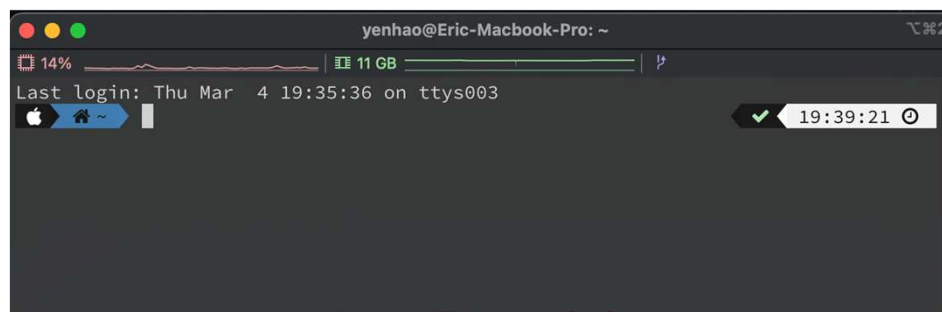
Don't need to change any settings

Terminal (Linux only)

- Launch terminal



- Now you can run the python and its with terminal.

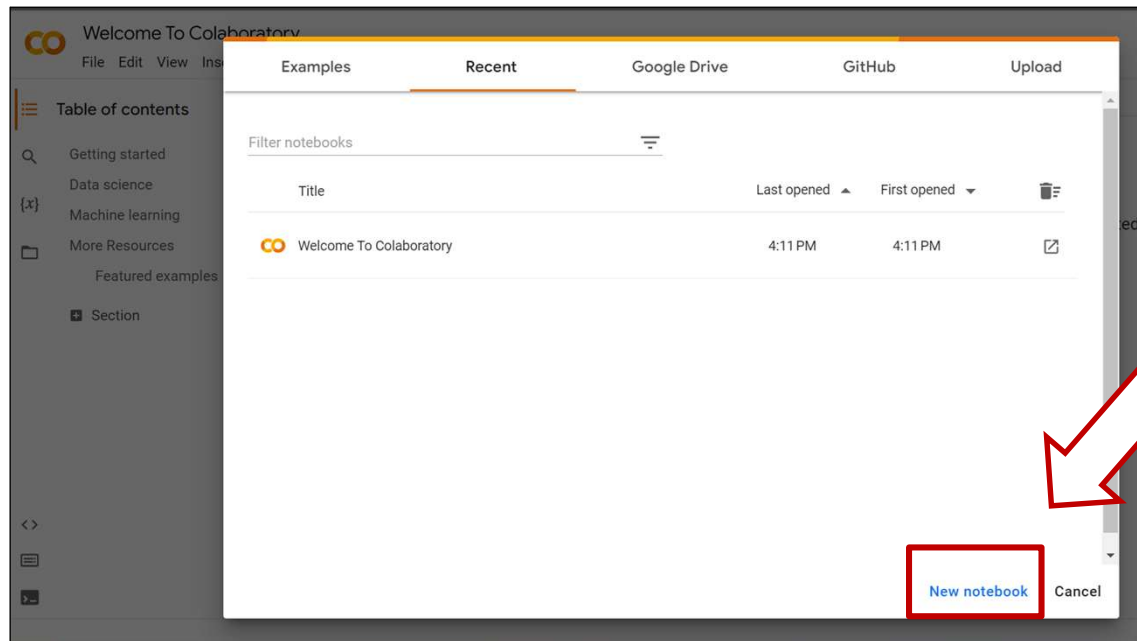


Google Colab

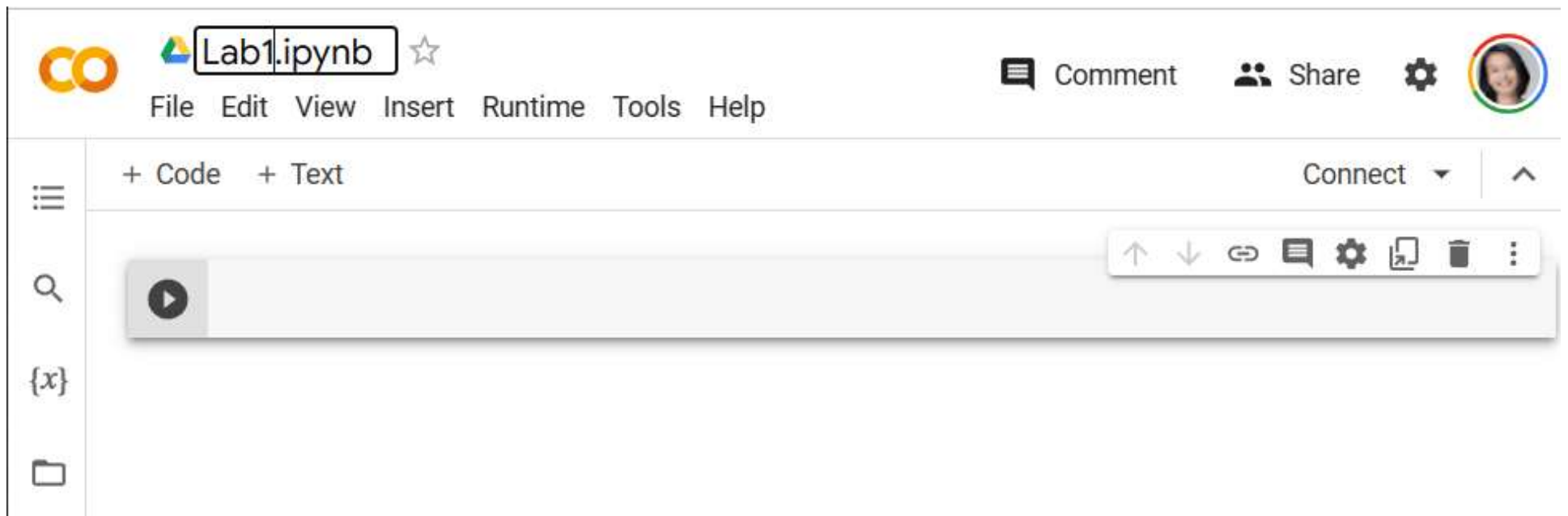
You need Internet from [HERE](#)

Login to your Google Account

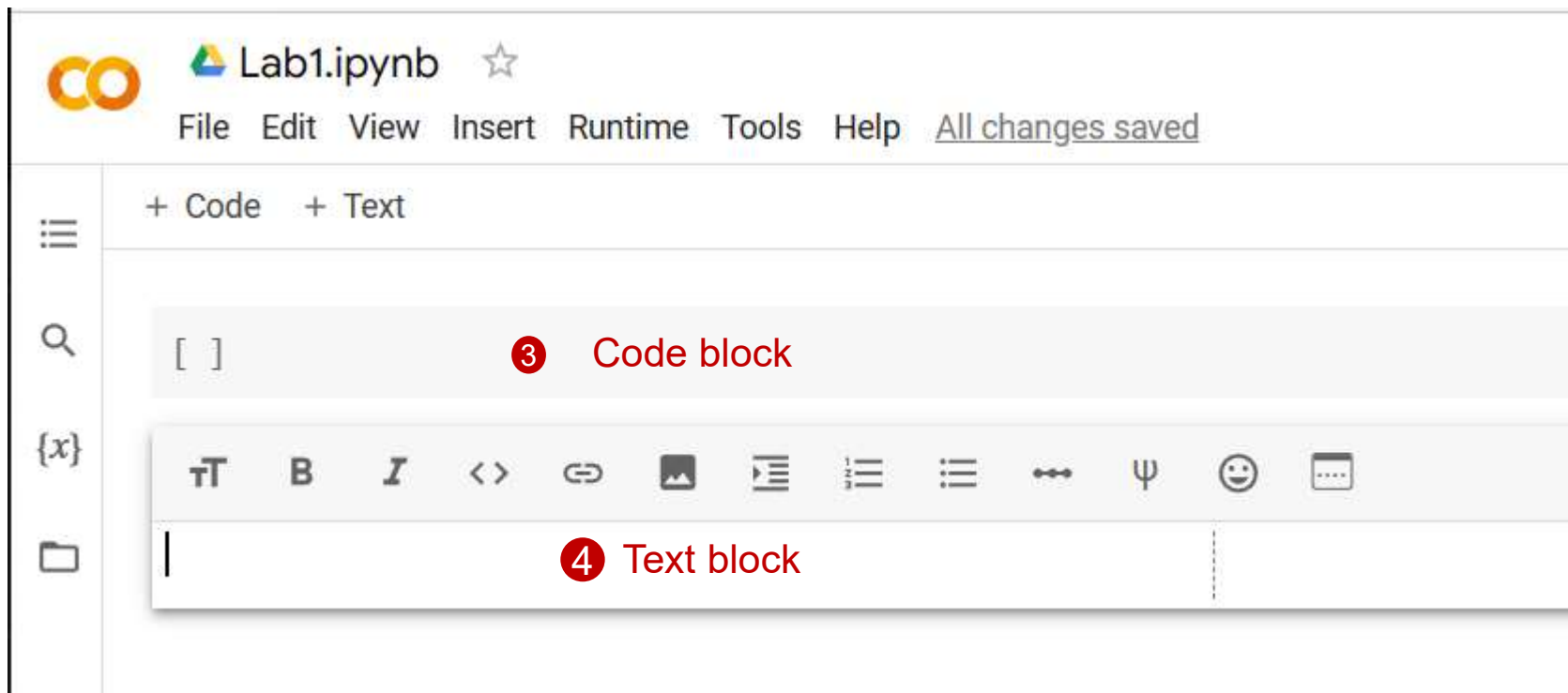
- Start using Google Colab <https://colab.research.google.com/>



Update File Name



Blocks



The screenshot displays the JupyterLab interface for a file named "Lab1.ipynb". The top menu bar includes "File", "Edit", "View", "Insert", "Runtime", "Tools", and "Help", with a status message "All changes saved". Below the menu, there are buttons for "+ Code" and "+ Text". The main workspace contains two blocks: a code block (labeled 3) with the text "[]" and a text block (labeled 4) with a vertical cursor. A rich text toolbar is positioned between the two blocks, featuring icons for text formatting (bold, italic, monospace), linking, image insertion, list creation, and other editing functions.

Print Out a Text

- If you want to print out a plain text in Python, we can use a function called `print("...")`.
- Ex: `print("Hello world")`

Test on OJ

Find the test

2749 - 2024GEC1506 - Hello World(Lab Practice)

Scoreboard



Time

2024/03/04 13:15:00

Contest Not Started Yet

2024/03/04 17:00:00

Clarification

#	Problem	Asker	Description	Reply	Replier	Reply Time	For all team
---	---------	-------	-------------	-------	---------	------------	--------------

Clarify

Overview

Problem ▾

#	Problem	Pass Rate (passed user / total user)
---	---------	--------------------------------------

13834	just print
-------	------------

13835	just print 2.0
-------	----------------

Logical Thinking of Informatics

Question

13834 - just print



Status | Limit

Submit

Description

Hello World. Just Print!

Input

[No Input]

Output

A line of text with content "I love GEC1506!"

Sample Input

Download

Sample Output

Download

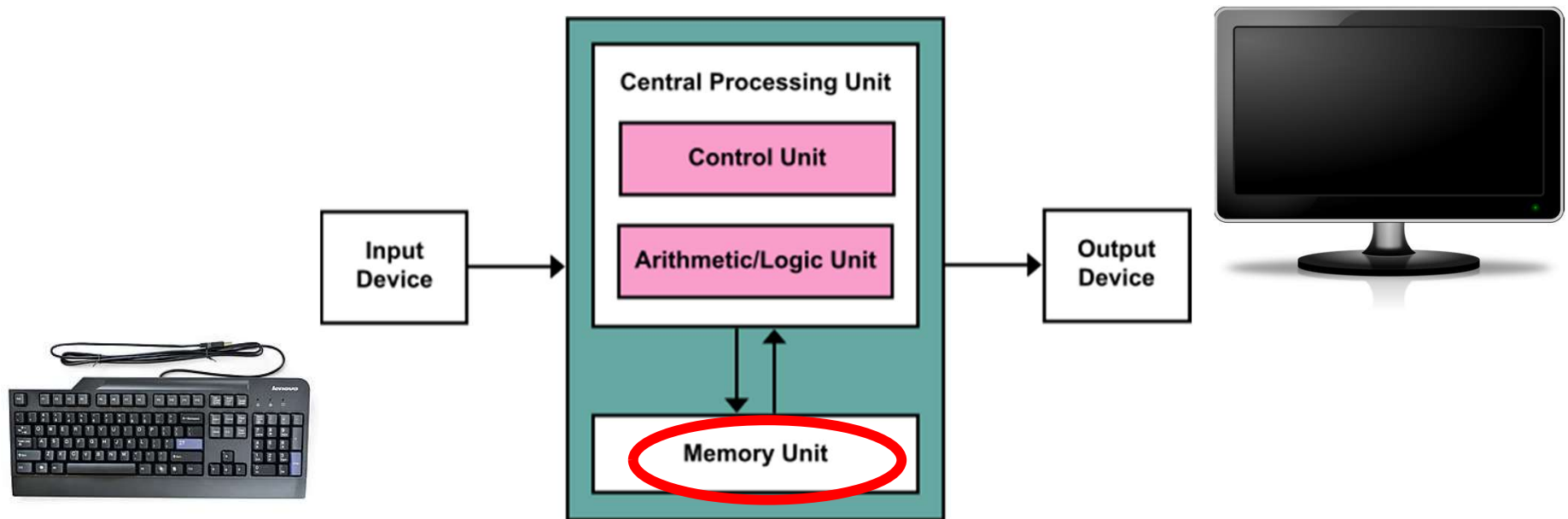
I love GEC1506!

Tags

Variable

Variable

- Variables are spaces to store values in computers



Logical Thinking of Informatics

Append Multiple String

- Use '+'

- Ex:

```
input2="! Happy!"  
print(inputText+input2)
```

Append an New Line

- Use “\n”

- Ex:

```
input3="\n"
```

```
print(inputText+input3+input2)
```

Get An Input String

- `input()`

Exercise

- Construct some codes that produce the output "This is Amazing!" when the input is "Amazing," and "This is Great!" when the input is "Great".