



# Getting to know Python

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Intro to Programming: Week 2



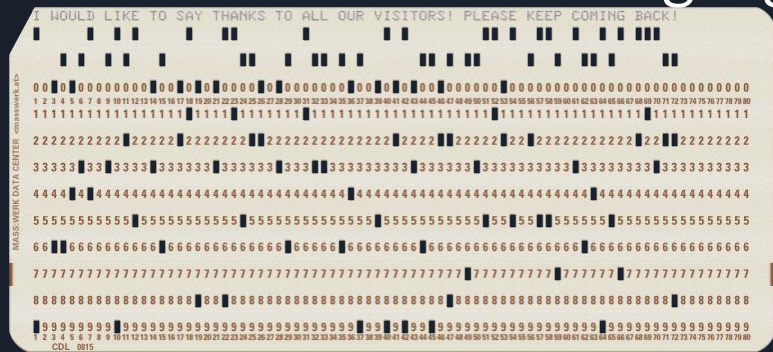
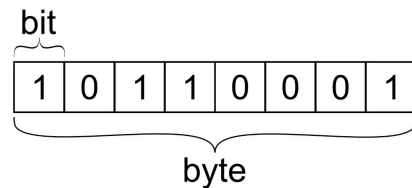
# Agenda

- Binary -> Assembler -> High Level languages
- Logic
- Libraries and Data Types
- 5 Steps of Programming Today



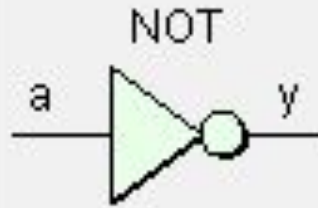
# Timeline of Programming (20th Century)

- Binary (Computer Read)
- Assmebler (routines = functions to alter bits)
- High Level Languages (Python)
  - Natural language abstraction of the 1 or 0s

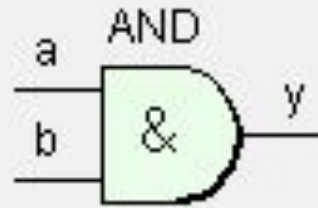




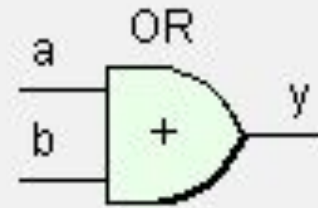
## Logic (if statements) (logic.py)



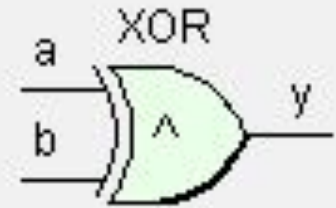
a	y
0	1
1	0



a	b	y
0	0	0
0	1	0
1	0	0
1	1	1

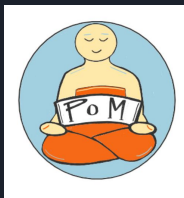


a	b	y
0	0	0
0	1	1
1	0	1
1	1	1



a	b	y
0	0	0
0	1	1
1	0	1
1	1	0

- AND
- OR
- NOT
- XOR (exclusive or)



## Interacting with the outside world

- Pandas (library/[documentation](#) interlude)
- [Data types](#) (built in)

Write down the type of data for the following data and whether or not they are mutable.

a) 1.54    b) 10    c) [1,2,3,4]    d) (1, 2, 3)



# Steps of Programming Today (Oriely)

- Interacting with the outside world (File Formats)
- Preparation (Cleaning/Normalizing data)
- Transformation (Statistical Analysis on Set)
- Modeling and Computation (Connecting data to models)
- Presentation (Graphical output/written summary)