PYTHON FOR DS & ML

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Applications of Python

- Web & Desktop Applications
- Automation
- Game Development
- **Data Science & Machine Learning**

COMPANIES THAT USE PYTHON

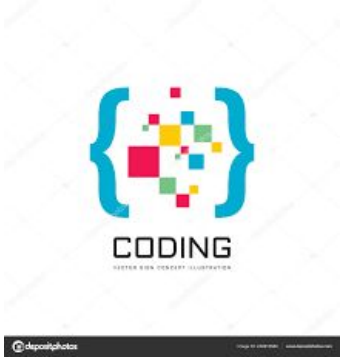
- Instagram
- YouTube
- Google
- NASA
- IBM
- Spotify
- Pinterest …

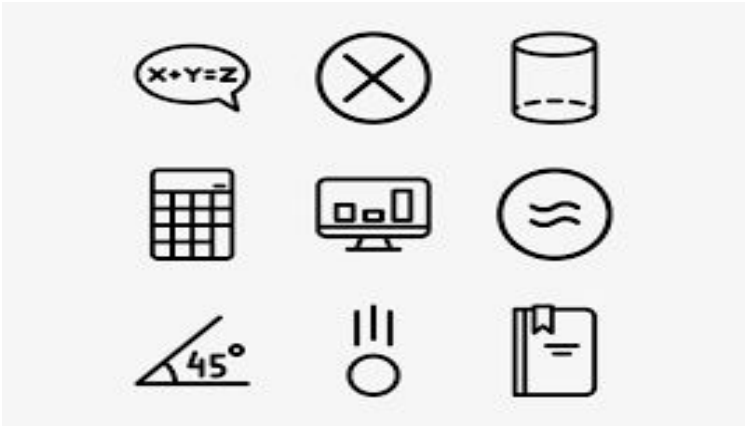
MINDSET SHIFT

Learn, Unlearn & Re-learn

Intro to Programming

- A problem language is a tool
- Thinking like a computer
- Logic





Programming building blocks

- Setup development environment & Hello world
- Variables, Data types and Operators
- Decision making & Control statements
- Functions & Modules
- Language-specific features

SETUP DEVELOPMENT ENVIRONMENT & HELLO WORLD

```
>>> print("Hello, World!")
Hello, World!
```

VARIABLES, DATA TYPES AND OPERATORS

```
# VARIABLES
x = 4
y = "Sally"
print(x)
print(y

# DATATYPES
x = "Hello World" # String
x = 20 # Integer
x = 3.14 # Float
x = True # Boolean
x = ["apple", "banana", "cherry"] # List

# OPERATORS
x = 10
y = 2

+, -, /, *, %, **, =, +=, -=, ==, !=, >=, <=
```

DECISION MAKING & CONTROL STATEMENTS

```python
# Decision making statements
a = 200
b = 33

if b > a:
  print("b is greater than a")
elif a == b:
  print("a and b are equal")
else:
  print("a is greater than b")
```

```python
# Control statements
# While loop
i = 1
while i < 6:
  print(i)
  i += 1


# For loop
fruits = ["apple", "banana", "cherry"]
for x in fruits:
  print(x)
```

FUNCTIONS & MODULES

```
def my_function():
  print("Hello from a function")

my_function()
```

```
# Imports & Modules

# 1st option
import mymodule as mx
a = mx.person1["age"]

# 2nd option
from mymodule import person1
print(person1)
```

APPRECIATION TO

- Carbon: create beautiful code snippets
- Google Slides: create capturing presentations

NEXT STEPS

To get started with Python, visit the W3Schools site: W3S Python Tutorial

Thank you !