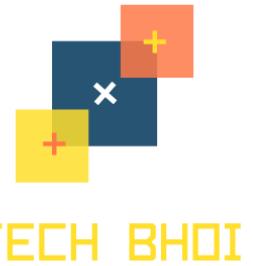


# WEEK 1 INTRODUCTION



JUN 29  
JUL 3  
2020



**MON  
JUN 29**

## **PYTHON**

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Python is one of the best programming languages to learn, it is ranked as the top most commonly used programming language. It is very useful to learn for beginner coders, because the language itself has a syntax and readability almost like in English. It is a popular programming language for machine learning and deep learning applications. This language is quick to implement ideas with simple code.

## **PROBLEM SOLVING**

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The goal of this course is to teach you how to think like a computer scientist, and understand the foundations of how to code (in many popular languages). Problem solving is the ability to formulate problems, think creatively about solutions, and express a solution accurately and efficiently. As it turns out, the process of learning how to program is an excellent opportunity to practice problem solving skills.

**TUE  
JUN 30**

## **OUTPUT**

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Whenever we use an app or website, we expect it to do something when we click/tap. This is an example of what we call an "output". It shows back to us something useful whenever we do an action.

In python, we show outputs by using the print function as follows:

```
print("what we want to see")
```

### **QUIZ**

What do you need to use to show an output?

- a) print()
- b) printing()
- c) print it now()

Another example of an output is when we search something in google.com, we expect to see some search results, these results are called outputs.

Use **print()** to show output

**print("Hello World!")**

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# VARIABLES

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## VARIABLE = VARY+ABLE

A variable is used to store a piece of information that we want to reuse throughout our programs. A real world example of this is like your Facebook photo, we can change it or have it store nothing. Similarly the number of likes on Facebook this is a variable that stores the information of how many people like your new picture, this can also change or vary over time.

### DISCUSSION:

Identify some things around you that can change/vary over time.

Three parts:

- 1) A name
- 2) An equal sign (=)
- 3) A value

### THINK OF A CONTAINER

### QUIZ:

can you predict the output of the following code?

```
likes = 43
likes = 71
Likes = 38
print(likes)
```

- a) 43.      b) 71.      c) 38.      d) likes

## VARIABLE\_NAME = VALUE

USE A VARIABLE TO  
STORE INFORMATION  
THAT NEEDS TO BE  
REUSED, OR  
INFORMATION THAT  
CHANGES OVER TIME

```
iced, class_name: 'O
reign_key: :vendor_id
nt, class_name: 'Messa
ceived, class_name: 'Me
utes_for_photos, allow_
```

```
ash_digest: Digest::SHA256
sh_digest, CLASS=User ATTAC
tar, styles: { medium: '300x
default_style: :medium,
default_url: '/images/mi
```

has\_attached\_file :user\_star