Attendance:
tiny.cc/event-attendance

App Dev League

Day 2: Python Projects

Lesson Overview

1. Content Review
2. Calculator Exercise
3. Tic Tac Toe
4. Hangman

Content Review

➔ Python Basics (Variables, Types, Casting)

➔ Simple Data Structures

➔ Looping Constructs

Review 1

Data Types

- Essentially types of data (integers, strings, floats, booleans)
- There is no explicit keyword for typing

Common data types

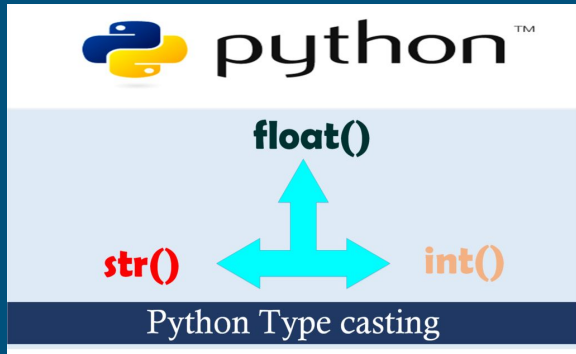| Data type:	Example value:
Integer	35462216
Floating-point	0.002756
Char	H
String	Hello, World!
Boolean	true

ComputerHope.com

Variables

- Store information, help the program remember things
- Named with underscore notation

"Hello!"

message

Review 2

Casting

- Easy way to switch between types

- Helpful tool, used frequently in Python

Python Type casting

Formatted Strings (fstring)

- Prints strings without any concatenation needed

- Condenses code

- Casting isn't needed at all for fstrings!

`print(f"")`

Input

- Using the input function creates user interaction in your program

- User interaction is important for user engagement


```
name = input("Name: ")

Age = int(input("Age: "))
```

Calculator Exercise

Functions

- A function is a collection of code that performs a specific task

- Function that prints "hi"

  def sayHi():

  print("hi")

  sayHi()

- Functions help keep organized in chunks

Classes

- A class is a way for building your own data type that simulates attributes of a real life object

- Class that displays the attributes of a video game

```
class VideoGame:

    def __init__(self, numberLevels, isHard, yearsOld):
```

- Used everywhere in python programs and is a very fundamental concept

Objects

- An object is an instantiation of a class

- Way of calling the data type

```
flappyBird = VideoGame(8, True, 1)
```

- Objects are used in every programming language and its a very common concept we see

  even in the real world

Tic Tac Toe

Now let's take a look at some of the code!

THANKS!

ANY QUESTIONS?

You can find more info @

◇ https://www.appdevleague.org
◇ https://linktr.ee/AppDevLeague