REAL WORLD APPLICATIONS

DAY FOUR

PROJECT INCLUDE ALBION BOOTCAMP

REVIEW

Variable data types: Strings, integers, floats

Lists: A list is a group of items. Each item in the list has an **index**.

Functions: A function is a block of code that takes in inputs (parameters) and outputs something (return or print).

If, elif, else: Runs a block of code if a condition is <u>True</u> or else if <u>False</u>.

For Loops/While Loops: Loops that loop the same code until a condition or the end is reached.

UPPERCASE FUNCTION

Build a function that returns the number of uppercase letters in a string that is passed through a parameter.

For example: upper("uPpeR") returns 2

Hint: Use isupper() function

REVERSE LETTERS OF A STRING

Build a function that reverses the letters of a string.

For example: reverse("cool") returns looc

Hint: Create a new variable that holds a string.

Finish winner()

Finish the winner() function. It should:

- 1. Take in the board
- 2. Print out the winning player

Hint: Look at the **checkWin()** function.

Finish playOne()

Finish the playOne() function.

playOne() must:

- 1. Loop until board is full (hint: boardIsFull) and there is no winner (hint: checkWin). Print the winner after the loop.
- 2. Switch players each loop
- 3. Ask player to type in their move but if move is not valid, then ask player to type in their move again
- 4. Print the board once each move is completed

So do you not want a final project handout then? Up to you, Id just like to put this up while they work. + we're not having a powerpoint on the last day

BREAK TIME

LIBRARIES

Python is a very useful language because it is extremely well developed.

Libraries are functions that other programmers have written to make your programming life easier. You have to import these libraries:

from <u>library</u> import <u>function</u>

RANDOM

The random library is a useful library that programmers use frequently

It can chose a random item from a list, or a random integer from a range, or even a random float

Importing randint in python:
from random import randint

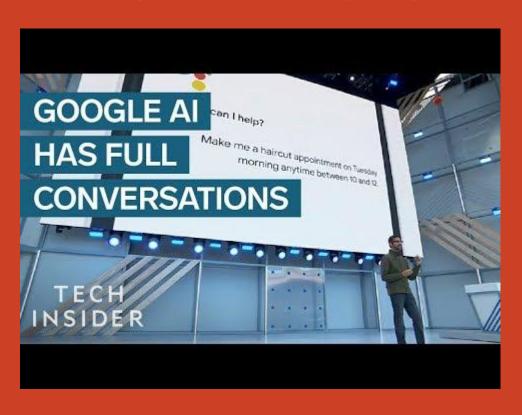
Then, calling randint:
randint(lowest, highest, step)
Step is optional

RANDOM ACTIVITY

Create a function that picks a random item from a list.

Create a function that chooses five random integers and adds them together

ARTIFICIAL INTELLIGENCE



DAY FOUR COMPLETE SEE YOU TOMORROW!