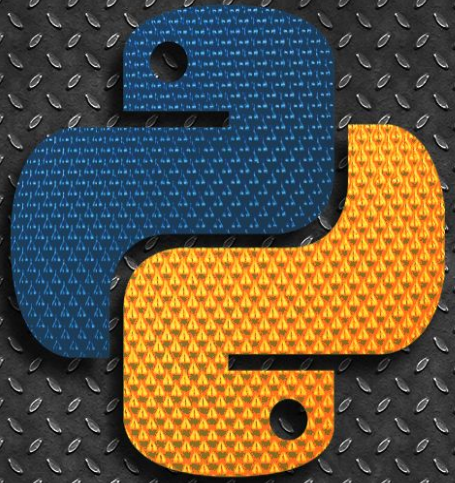
Introduction to Programming in Python



BDAA

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Outline

- What is Python? Why Python?
- Installing Python
- print() function
- Variables
- Control Flow: if, else, elif statements
- Exercise: Harry Potter Sorting Hat!
- Math! (Arithmetic Operators & math package)
- Functions
- Lists
- While loops
- For loops

What is a Program?

- Set of instructions

What is Python?

- "Python is an interpreted, object-oriented, high-level programming language with dynamic semantics" - python.org
- What?
- Basically, Python is an easy-to-use, powerful, general-purpose programming language

Why Python?

- Easy syntax
- General purpose
- Popular
- Many useful packages
- Free

Python 2 vs. 3

- Python 2 is older, support is ending, however, many companies still use it
- Python 3 is newer (and better!)

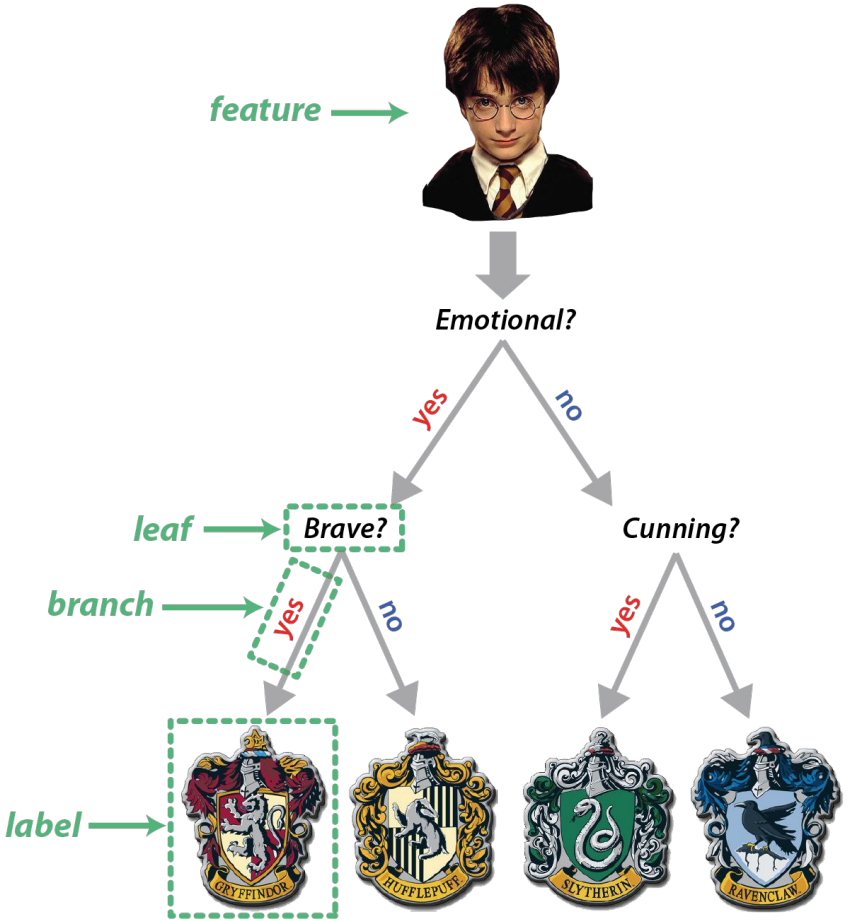
- There are some small, but notable, differences between them
  - division operator
  - print function
  - Unicode
  - etc.

Integrated Development Environment (IDE)

- Interface to write code

Installing Python & an IDE

- https://www.anaconda.com/distribution/



https://medium.com/@tmckenzie.nz/learning-machine-learning-at-hogwarts-55e6ee85eef7

Further Resources

- Classes at OSU:
  - CSE 4256
- BDAA Workshops!
- Online Courses:
  - Coursera: Python for Everybody
- Books:
  - Beginner: *Python Crash Course: A Hands-On, Project-Based Introduction to Programming* - Eric Matthes
  - Beginner: *Head-First Python: A Brain-Friendly Guide* - Paul Barry
  - Intermediate: *Fluent Python* - Luciano Ramalho
- Internet
  - Codecademy - Interactive Tutorials
- People: BDAA Slack, Mentors, CSE Professors
- Projects
  - Kaggle

Questions?

- Any Questions?

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