



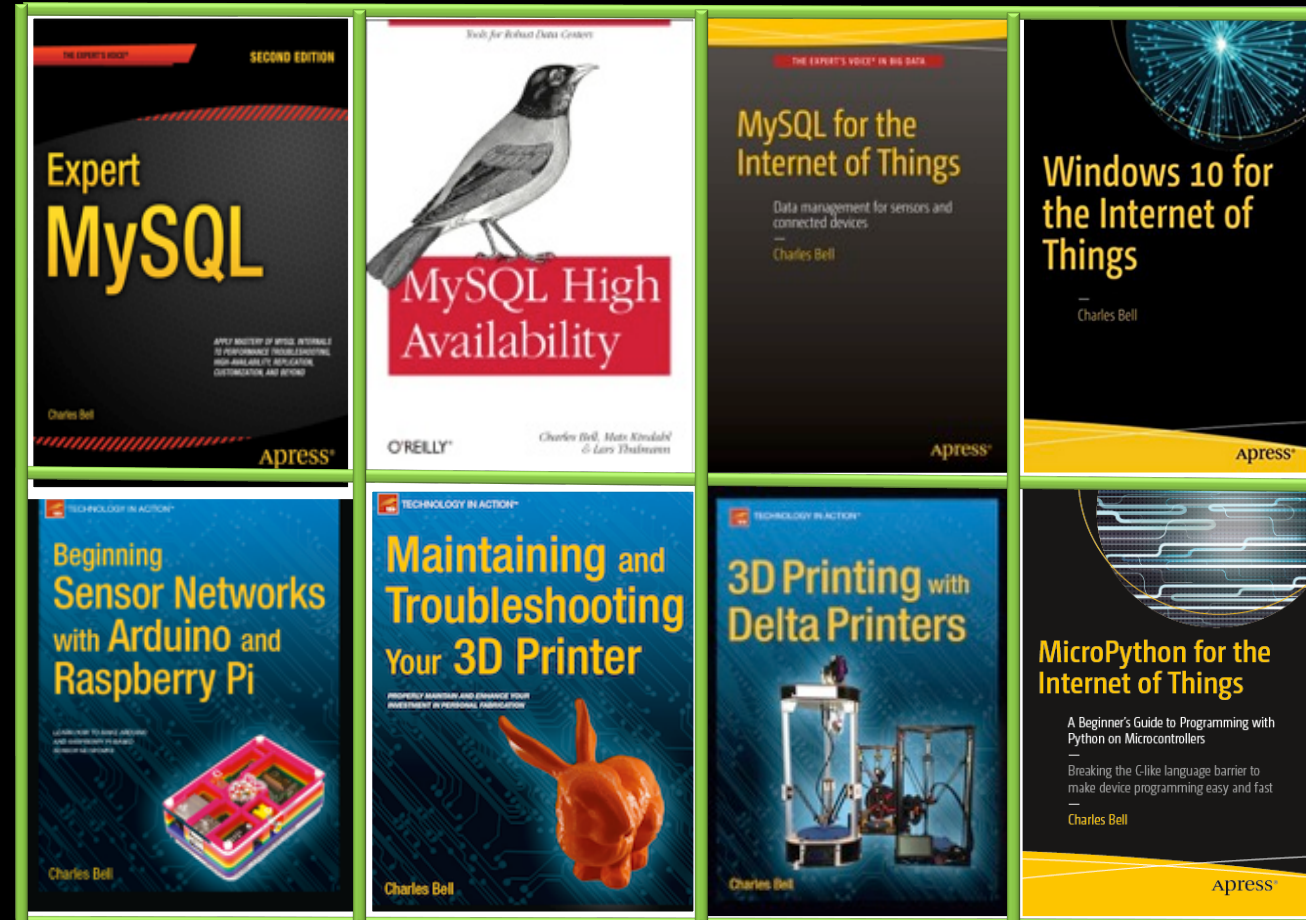
Parables and Pythons

Dr. Charles “Chuck” Bell

Lesson 1: 12 September 2018

ABOUT THE SPEAKER

- Charles “Chuck” Bell, PhD Engineering
- Senior Developer, Oracle Corporation
- Author
 - 3D Printing
 - Internet of Things
 - MySQL
 - Sensor Networks
 - High Availability Database Systems
 - MySQL Document Store
 - Beginning InnoDB Cluster



ABOUT THE CLASS

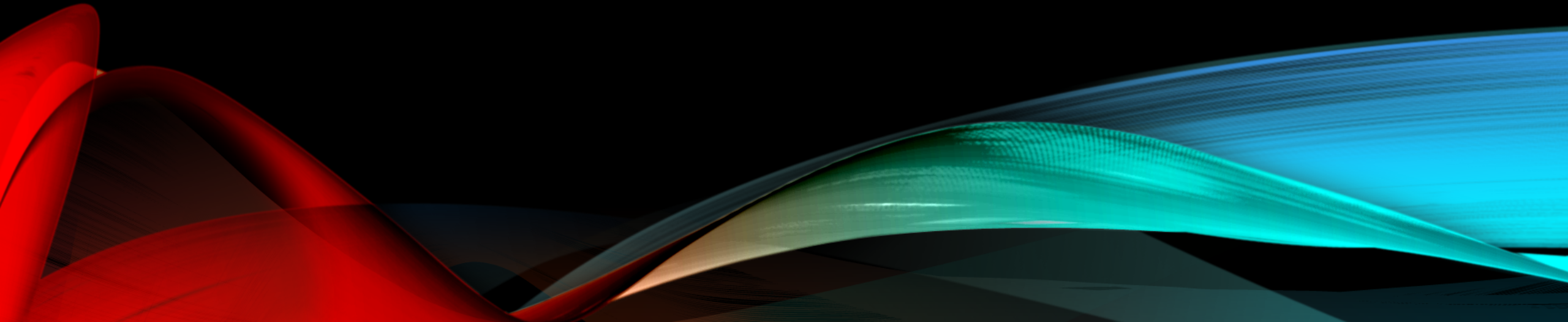
- Each Wednesday we will meet in the dock for a short group session.
- When we break out, we will be in this portion of the dock.
- Please bring your laptops every night.
- On the last day of class, we will have a programming contest to showcase your new talent.
 - There will be two or more categories with each challenge graded and points awarded for completeness and accuracy
 - You will have chances to earn bonus points to be applied to your score
 - For example, doing the homework and turning it in the following week (ON TIME) will result in 1 or more bonus points.
 - The winner of the contest will be the student with the most points earned (with bonus points applied)



CLASS AGENDA

- Bible Study: 10-15 minutes
 - The Golden Age of British Comedy: 2-3 minutes
 - Computer Programming with Python: 30-45 minutes
 - You will be assigned homework each class, but participation is voluntary
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- What follows is a brief example of the class agenda

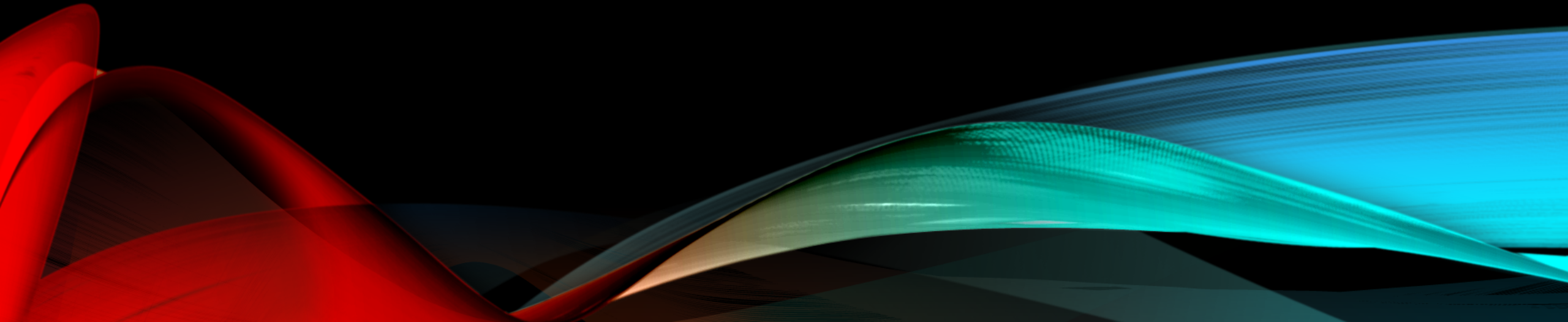
BIBLE STUDY: THE PARABLES OF JESUS



INTRODUCTION TO PARABLES

- Everyone who has attended church for any length of time has heard many of the parables in the Bible.
- Parables have contributed to our vocabulary and have made certain words and phrases common-place.
 - Good Samaritan
 - Talent
 - Prodigal Son
- Parables are often the source of sermons and Bible lessons year-round.
- Parables have been allegorized, psychologized, and reduced to bullet points for moral behavior.
- But they are far more than that!
 - There are moral, political, social issues addressed by the parables.
- We'll learn much more about parables starting next week.

THE GOLDEN AGE OF BRITISH COMEDY





And now for something completely different...

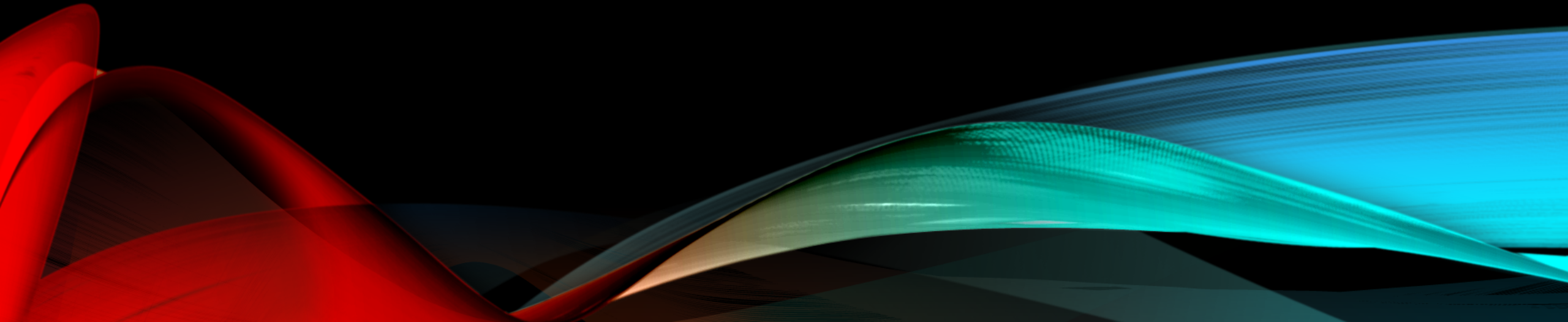
- <https://www.youtube.com/watch?v=122jTAEsEOk>

WHO (WHAT) IS MONTY PYTHON?

- Monty Python were a British surreal comedy group who created *Monty Python's Flying Circus*, which first aired on the BBC in 1969 featuring a series of short skits (sketches). Does that sound familiar?
- Members include Graham Chapman, John Cleese, Terry Gilliam, Eric Idle, Terry Jones, and Michael Palin
- The show ran from 1969 to 1974
- The troupe also made several movies including *And Now for Something Completely Different*, *Holy Grail*, *Life of Brian*, *Live at the Hollywood Bowl*, and *Meaning of Life*
- Also performed on Broadway (and film) called *Spamalot* (named after one of their skits)
- Considered by many to be “intellectual” humor

**Note Some content may be inappropriate for young adults (and younger).
Seek your parents' permission before viewing Monty Python material.**

COMPUTER PROGRAMMING

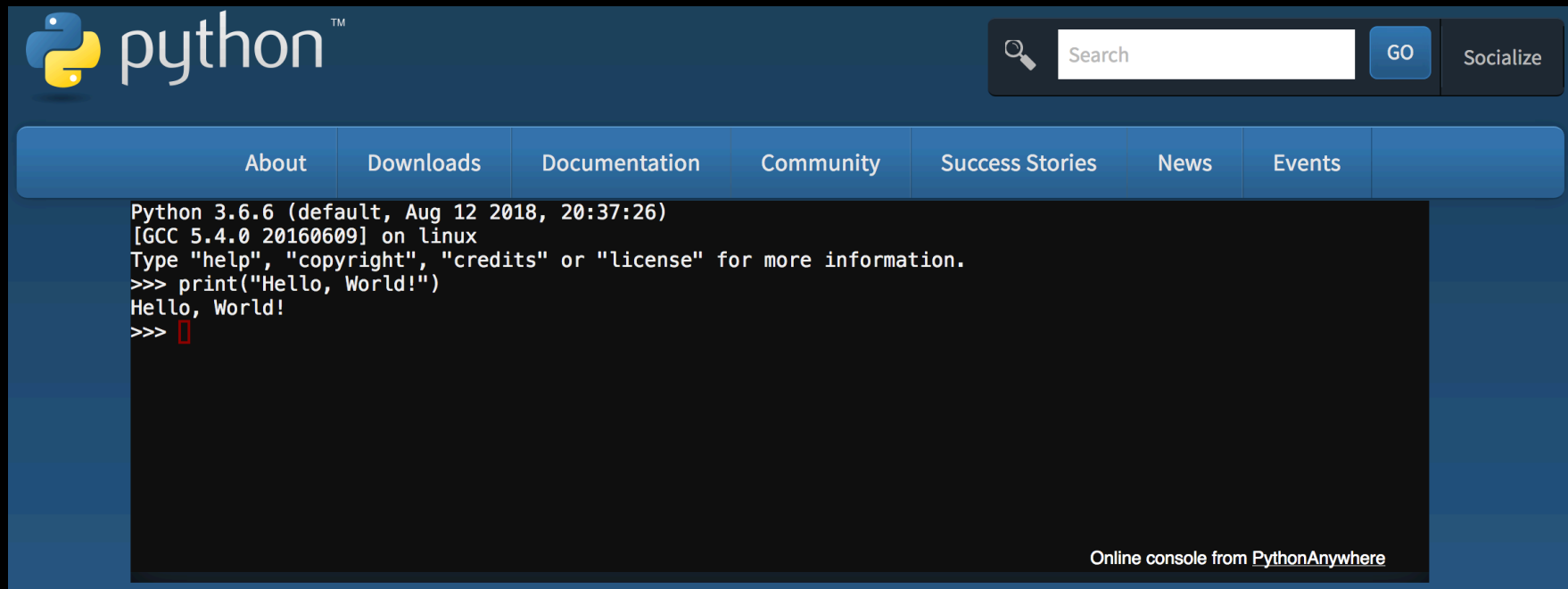


Python? Isn't that a snake?

- Python was developed by Guido van Rossum from the late 1980's to early 1990's in the Netherlands.
- It was derived from and influenced by many programming languages including Modula-3, C, C++, and even Unix shell scripting languages.
- Fourth generation scripting language.
- Used by many developers for systems operations and application (devops), scripting, and more.
- Is one of the "P"s in LAMP stack (Linux, Apache, MySQL, Python/Perl/PHP)
- A fascinating fact about Python is it was named after the BBC show, "Monty Python's Flying Circus" and has nothing to do with the reptile by the same name.
- In fact, quoting Monty Python in source code documentation (and even a humorous diversion for error messages) is very common and while some professional developers may cringe at the insinuation, it's considered by Pythonistas as showing your Python street cred.

GETTING STARTED

- Python comes pre-installed with Mac OS X and Linux
- For Windows, you can download Python from <http://python.org/>
- You can also use an online Python from <https://www.python.org/shell/>
- You can use either Python 2.7+ or 3.4+.



PYTHON INTERPRETER

- Interactive interface to Python
- Just open a terminal and type "python" or "python3"
- Python interpreter evaluates inputs interactively
- To exit the interpreter, press CTRL-D or enter quit()

```
$ python3
Python 3.6.0 (v3.6.0:41df79263a11, Dec 22 2016, 17:23:13)
[GCC 4.2.1 (Apple Inc. build 5666) (dot 3)] on darwin
Type "help", "copyright", "credits" or "license" for more
information.
>>> print("Hello, World! My name is Chuck.")
Hello, World! My name is Chuck.
>>> quit()
```


PYTHON SCRIPTS

- The Python interpreter can also process files (called scripts) and execute them.
- File are named with a .py extension.
- Script files are not interactive.
- Example:

```
$ python3 ./sqrt.py  
Please enter a number: 25  
The square root of 25 is 5.0.
```

HOMEWORK ASSIGNMENT

- Install Python on your laptop.
- Start the Python interpreter and enter the following lines of code.

```
num = input("Please enter a number: ")  
num_sqrt = float(num) ** 0.5  
print("The square root of {0} is {1}.".format(num, num_sqrt))
```
- Print out your screen and turn it in for (1) bonus point for the programming tournament.
 - Use these values: [-1, 13, 25, and 12312313]
- For an extra point, save the code to a file and run it as a script and printout a transcript.

QUESTIONS OR COMMENTS?

