Activity: Hello, World!

In this activity, you will run Python from the command line and become acquainted with its most basic mode of operation.

To get started, log onto the Rivanna shell and move into in the course directory you created for this class.

Which Python?

Once you are in Rivanna, you will want to know which version of Python you have installed as the default.

To find out, from the command line type:

```
which python
```

This will show you the "path" to a python interpreter. For example:

```
rca2t@rivanna$ which python
/apps/software/standard/core/anaconda/2020.11-py3.8/bin/python
rca2t@rivanna$
```

If you do not see "anaconda" in that path, then run the following command:

```
module load anaconda
```

This will update your environment to use Anaconda's distribution of Python.

After running the command, enter the command to see which pythion is being used to confirm that it is the one from Ancaconda.

Aside

Note that you can use `module` to run other programs on your Rivanna account.

Type `module list` to see which programs have already been installed on your account.

Type `module spider` to see all the programs you can install.

The Python Interactive Shell

From the command line, enter python

You should get the Python Shell:

```
rca2t@rivanna$ python
Python 3.8.8 | packaged by conda-forge | (default, Feb 20 2021, 16:22:27)
[GCC 9.3.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

This is also called the Python standard REPL, which stands for "Read-Eval-Print Loop".

Make sure you see that you are using version 3 of Python.

If you see Python 2, exit the shell by entering `quit()` and try again by entering python3 at the command line.

At the `>>>` prompt type `print("Hello, World!")` and press return.

If you've never used Python, you've just completed an important ritual. If you have used Python, well, you did it again :-)

Try `this`

Now, enter following line at the prompt and press return:

```
import this
```

What do you see?

To exit the Python Shell, enter `quit()` or `exit()` and hit return.

Running Python Files

Now create a file called `hello.py` using the command line editor `nano`. Enter the same commands you used above.

Then run it from the command line by directly invoking the Python interpreter python.