**Data Analyst Nanodegree – Project P0**

**September 12, 2015**

**P0 Analyze Chopstick Length - Optional**

**Project Overview**

You will install Python using an Anaconda distribution, which comes with IPython notebook, as well many popular Python packages for data analysis, science, math, and engineering. Some of these packages can be difficult to install otherwise, so we highly recommend installing Anaconda. Next, you will get acquainted with an IPython notebook, responding to questions and running code.

It is not required to submit this project or to meet specifications on it, although you are welcome to resubmit until you meet specifications if you like. The project also has no deadline, but we recommend trying to complete it in the first 7 days in the program. This will let you take full advantage of an early opportunity to experience the submission process and receive feedback immediately after you put your newest skills into practice.

Prepare for this project with: [Lesson 1 of Statistics](https://www.udacity.com/course/viewer#%21/c-ud134a-nd). (This is the first lesson of the [full Statistics course](https://www.udacity.com/course/viewer#%21/c-ud134-nd), which you will see later in the Nanodegree program.)

**Why this Project?**

Data analysis involves reasoning about data, documenting your thought process and communicating results and actions. Your best analysis is only as good as your ability to communicate it. This project provides you an opportunity to work with a popular tool and gain confidence in interpreting data. You will also get a chance to apply what you've learned in [Lesson 1 of Statistics](https://www.udacity.com/course/viewer#%21/c-ud134a-nd) using Python. You'll be going deeper in this direction during Introduction to Data Science and Project 2.

Additionally, this project will familiarize you with project submission, project review, and project feedback.

**What will I learn?**

You will learn how to open an IPython notebook, run commands in an IPython notebook, and export your work as an HTML document to share. You'll also analyze the design of an experiment and interpret the results.

**Why is this important to my career?**

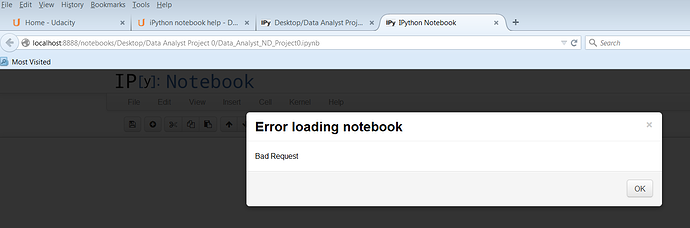
* As a Data Analyst, you will analyze data using programming languages (like Python, R and SQL) and other related packages.
* Your day to day work as an analyst involves using a documentation tool to efficiently create, edit, and share data analyses.

**How do I complete this project?**

This project is connected to [Lesson 1 of Statistics](https://www.udacity.com/course/viewer#%21/c-ud134a-nd), but depending on your background knowledge of statistics, you may not need to take the entire lesson to complete this project.

1. Navigate to <http://continuum.io/downloads> in your broswer.
2. Install Python using the Anaconda distribution, which comes with IPython. We recommend this installation since it comes with many useful packages and is easy to install. Don't install Python 3.4 as the Nanodegree Program uses Python 2.7 throughout the courses and projects.
   * On a PC, click the Windows icon and select "Windows 64-Bit Python 2.7 Graphical Installer". You can also select the 32-bit installer if you have a 32-bit machine. Then run the installer and follow the instructions on the screen.
   * On Mac or Linux, follow the same process but select the appropriate installer for your platform.
3. Download the IPython notebook from either the Downloadables section or [this link](https://www.udacity.com/api/nodes/4576183932/supplemental_media/data-analyst-nd-project0ipynb/download).
4. Open your Command Prompt (PC) or terminal (Mac or Linux).
   * On a PC click the Start button and search for "Command Prompt".
   * On a Mac type command + spacebar. Then, type ''terminal" in the Spotlight Search. You can also search for "terminal" in finder.
5. Navigate to the directory where you downloaded the IPython notebook file.
   * On a PC you might type: cd C:\Users\username\Downloads\, replacing your username. Learn more about [basic terminal commands](http://www.7tutorials.com/command-prompt-how-use-basic-commands).
   * On Mac or Linux you might type: cd ~/Downloads. Learn more about [basic terminal commands](http://mac.appstorm.net/how-to/utilities-how-to/how-to-use-terminal-the-basics).
6. Run the command ipython notebook Data\_Analyst\_ND\_Project0.ipynb in your terminal.

The above instructions did not work for me. I needed help from the classroom… @masruba told me to put “ipython notebook” in the run command and that opened ipython notebook in firefox… but when I tried to open the file Data\_Analyst\_ND\_Project0.ipynb I got this error message:



She then asked me what version of IPython Notebook I have and I cannot tell.. she sent me link to stack overflow to see how to look up the version … that was greek to me. So, I’m reinstalling IPython… since I did it last Feb and there may be a new version

1. Read through the notebook and answer the questions. Keep in mind you can refer to the statistics course, search on google, or head to the discussion forums if you get stuck or have a question.
2. Once you are finished, download the notebook as an HTML file. Click on File -> Download.As -> HTML (.html) in the IPython notebook. If you get an error about "No module name ", then open a terminal and try installing the missing module using pip install <module\_name> (don't include the "<" or ">" or any words following a period in the module name).

# Ready to Submit?

## Submit your work

First navigate to your [Udacity Home](https://www.udacity.com/me). Then look for "P0: Analyze Chopstick Length (Optional)", click on it, then click the “Submit Project” button. We’ll walk you through the rest.

## Evaluation

We will use [this rubric](https://docs.google.com/document/u/1/d/1TSa2XKZFMpVlHyUMXNGSFfwWd1FRrHBFEj5TT5QKCkM/pub?embedded=True) to evaluate your project. This project is meant to provide you with a quick opportunity to experience the submission process and feedback for your learning without slowing your progress forward. As such, it is not required to submit this project or to meet specifications on it, although you are welcome to resubmit until you meet specifications if you like.

## Troubleshooting

Can't manage to submit your project? No worries! If you have any questions, please email us at dataanalyst-support@udacity.com or visit us in the [discussion forums](http://discussions.udacity.com)!

## What's Next?

You will get an email as soon as your reviewer has feedback for you. In the meantime, now that you have jumped into some code and statistics, continue on learning statistics!