

# Assignment 2: Keeping Up With Social Information (Extra Credit)

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CS/INFO 4300 Language and Information

Due by midnight on Wednesday February 12th

You must complete this assignment **individually**.

By now, you've had some exposure to techniques for uncovering social dynamics in textual data through your assignments working with the "Keeping Up With The Kardashians" data set.

In this assignment we will be giving you the freedom to conduct analysis of **your choosing** on transcripts from the television series "A Game of Thrones".

## Extra Credit Policy

The policy for this extra credit is that you should complete as much as you can.

## Instructions

Follow the instructions below to get the necessary packages installed and set up your Python environment, then open the attached Jupyter notebook.

Run the notebook and complete the tasks contained in it, then upload the completed notebook and an HTML copy of it to CMS.

Double check that your files were correctly uploaded (by re-downloading them). If you have technical issues with CMS, send the files to the grad TAs and to the instructor via email **before** the assignment deadline, explaining what prevented you from submitting on CMS. As stated in the syllabus, we can not accept late submissions.

## Learning Objectives

This project aims to help you get comfortable working with the following tools / technologies / concepts:

- Applying learned tools to conduct novel analysis

## Academic Integrity and Collaboration

Note that these projects should be completed individually. As a result, all University-standard academic integrity guidelines must be followed.

## Setting up your environment

### System Configuration

Perform the following steps in order:

## 1. Check your Version of Python (should be 3.5.2)

You can check via:

```
> python3 --version  
Python 3.5.2
```

If your version differs, then download [3.5.2 here](#). (Some requirements in step 4 will fail with Python 3.6+)

## 2. Check that Pip is Installed and Up-to-date.

You should already have pip installed if you have Python downloaded from python.org. Make sure that yours is up-to-date.

Upgrade pip :

```
> python3 -m pip install -U pip
```

If not, install it following instructions. (also found [here](#))

```
> curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py  
  
> python3 get-pip.py
```

## 3. Install Virtualenv via Pip

**Virtualenv** helps establish an isolated **Python** environment. The environment allows you to separate project-specific dependencies and their versions from the **Python** modules installed locally on your computer.

Once you have **virtualenv**, run the following:

```
> virtualenv -p python3 venv
```

This creates a virtual environment called **venv**.

In order to enter than virtual environment run the following:

Linux or MacOS:

```
> source venv/bin/activate
```

Windows:

```
> venv\Scripts\activate
```

The following command line prompt will indicate that you're in the virtual environment:

```
(venv) >
```

To deactivate the virtual environment, run the following:

```
(venv) > deactivate  
>
```

Whenever you work with this project, you should **always** be in your virtual environment. Without this isolation, we might run into module versioning issues and other problems when trying to run your project, which creates administrative overhead.

#### 4. Install Dependencies

At the root of directory of the project skeleton code, run the following:

```
(venv) > pip install -r requirements.txt
```

This installs within your virtual environment all the necessary modules that are required at the beginning of the project.

#### 5. Setup Jupyter Notebook

To use your virtualenv as the kernel for your Jupyter Notebook you run the following:

```
(venv) > python3 -m ipykernel install --user --name=venv
```

#### 6. Open Jupyter Notebook and start working

Open the Jupyter Notebook in your virtual environment and complete the assignment.

Linux or Mac:

```
> source venv/bin/activate  
(venv) > jupyter notebook
```

Windows:

```
> venv\Scripts\activate  
(venv) > jupyter notebook
```

In your Jupyter Notebook, make sure to set your kernel to your virtualenv. To change kernels, go to **Kernel** > **Change Kernel** and click **venv** as the option.