Project - Startup Prototype

You have recently graduated and decided to set off on your own to start a company (in an industry of your choice). Before you take the plunge you need funding to bootstrap your business and you know just the source, Dr. Kolowitz. Dr. Kolowitz doesn't invest in just any company, he's data driven in his decision making process. He also exclusively invests in well organized teams with deep technical expertise. In order to get him excited about your business you have to put together the following:

Deliverables

- Draft Deliverables
    - Pitch Deck
    - Project Board
- Prototypes
    - Data Files
    - Console User Interface Prototype
- Final Deliverables
    - Presentation Deck
    - Project Board
    - Source Code

Requirements

Deliverables

- Pitch Deck - you must use this template https://goo.gl/mm1RN1
- Presentation Deck - you must use this template https://goo.gl/RfVQVe
- Project Board - you must use Github Project Boards or Trello
- Data Files - you must submit a url to a XLSX in your Git repository
- Console User Interface and Final Source Code - you must submit a url to your Git repository
- Source Repository - you must use Git hosted on GitHub or Bitbucket

Technology

- You must use Python 3 and Jupyter. (Anaconda python preferred)
- You must use Git hosted on GitHub or Bitbucket
- You must have a requirements.txt file that includes all of the dependencies needed to build your project.

Process

- A Kanban or SCRUM process must be followed

Grading

Each deliverable is graded on the following scale at the discretion of the professor.

- 100% Superior Work
- 95% Exceeds Expectations
- 85% Meets Expectations
- 70% Nearly Meets Expectations
- 0% Unacceptable

Important Links

- GitHub https://github.com
- GitHub Project Boards https://help.github.com/articles/about-project-boards
- Bitbucket https://bitbucket.org/
- Trello http://trello.com/
- Anaconda Python https://www.anaconda.com/download/#macos
- Jupyter Notebooks (comes with Anaconda) http://jupyter.org/

Deliverable Details

The project will emulate a rapid application development environment, consisting of 5 deliverables due on specific dates (No late work will be accepted).

- **Pitch Deck**
  - Completion of the aforementioned template describing your project in detail.
- **Presentation Deck**
  - Completion of the aforementioned template describing your project in detail.
- **Project Board**
  - A detailed list of tasks that need performed in order to accomplish this project.
  - Assignment of tasks to team members.
  - The project board must be kept up to date at all times. The graders may periodically review the board. A stale or incomplete board will result in deduction of points.

- **Data Files**
    - At least 2 datasources are required.
        - Datasources included Web API's, Web scrapped data, CSV flat files, databases, etc.
        - Variety in format and type is required.
    - An XLSX file that contains data collected and processed from your datasources.
        - The draft workbook can be "hand assembled". The final workbook must be entirely processed by code in your Jupyter notebooks.
        - The data mockup should have at least 6 sheets (2 datasources) in the Workbook (but may have more). The final Workbook should have at least 8 sheets (3 datasources).
        - The sheets should reflect the raw data, cleaned data, and processed data.
        - As a rule of thumb, each data source should have 2 sheets (raw and cleaned) plus at least 1 sheet for the merged data plus 1 "cover sheet" describing the contents of the workbook.
        - For Example:
            - 2 datasources = 2 + 2 + 1 + 1 = 6
            - 3 datasources = 2 + 2 + 2 + 1 + 1 = 8
            - 4 datasources = 2 + 2 + 2 + 2 + 1 + 1 = 10`
    - Workbook details
        - The cover sheet must be 1st and named "cover"
        - The remaining sheets must be well named e.g. If we were processing Facebook and LinkedIn data our sheet names could be as follows:
            - cover
            - fb_raw
            - fb_clean
            - li_raw
            - li_clean
            - merged
            - processed (or final)
- **Console User Interface and Final Source Code**
    - Source Code will be Posted on *GitHub* or *Bitbucket*
    - The source code must be well documented with python docstrings and source code comments where applicable.
    - The source code must be easily readable and executable by the grader. If the grader cannot easily determine a) what

needed to be run, b) in what order, or c) receives errors you may receive a 0 for the assignment.
- Every project is different, and the goal of this project is to demonstrate a command of the concepts we're learning. I suggest being advantageous in scope and pragmatic in development. In that way you'll continuously evolve your project while meeting the minimum requirements.