Term Project Milestone 1: Independent Project Plan

***Week 1: Milestone 1 Due***

* Create basic outline of project plan to follow
* Create individual project folder in Teams for file uploads and peer reviews

***Week 2: Milestone 2 (Data Selection and Project Proposal) Due***

* Decide on project topic
* Select data to work with based on topic decision
* Create proposal to solve problem related to topic decision that includes:
  + Problem statement
  + Model type(s) to use to make projections/predictions
  + Methods to evaluate the predictions
  + Expected Results
* Upload data and proposal to project folder on Teams

***Week 3: Milestone 2 Peer Review and Begin Milestone 3 (Preliminary Analysis)***

* Complete Peer Review Form for 3 other individual projects’ second milestone
  + Upload to those projects’ Teams folders
  + Can be done earlier in the week to allow for more time in analysis
* Begin Preliminary Analysis
  + Complete using Python in Jupyter Notebook
  + Begin with plotting of data for exploratory analysis and cleaning of data

***Week 4: Continue Milestone 3 Work***

* Continue Preliminary Analysis
  + Clean data as needed
  + Create dataset to use with data sources
  + Continue exploratory analysis by plotting and analyzing data

***Week 5: Continue Milestone 3 Work***

* Continue Preliminary Analysis
  + Continue graphical exploratory analysis and explore correlations in data

***Week 6: Milestone 3 (Preliminary Analysis) Due***

* Finalize Preliminary Analysis
  + Summarize findings from exploratory analysis and explain what the data is showing
  + Upload document with graphs and findings to Teams

***Week 7: Milestone 3 Peer Review***

* Complete Peer Review Form for 3 other individual projects’ third milestone
  + Upload to those projects’ Teams folders
  + Can be done earlier in the week to begin refining own Preliminary Analysis and Finalization

***Week 8: Refine Preliminary Analysis***

* Refine Preliminary Analysis conclusions based on Peer Reviews received from others
* Begin work on Milestone 4 (Finalizing Results)

***Week 9: Milestone 4 (Finalizing Results)***

* Split the data into training and testing sets
* Create model(s) to use for making projections/predictions
* Interpret Model Results
* Evaluate the predictions made by the model(s)
* Begin organizing final conclusions and recommendations based on results of the model
* Establish ethical implications that arise from the analysis and predictions

***Week 10: Milestone 4 Peer Review***

* Complete Peer Review Form for 3 other individual projects’ fourth milestone
  + Upload to those projects’ Teams folder
  + Should be done earlier in the week to give others time to use feedback

***Week 11: Begin Final Paper and Presentation***

* Begin drafting final paper and presentation

***Week 12: Milestone 5 (Final Submission of Paper and Presentation)***

* Complete drafting of final paper and presentation
* Record (audio or video) of presenting the final presentation for submission

***Rough Schedule Table:***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Week | Milestone | Task | Mon | Tues | Weds | Thurs | Fri | Sat | Sun |
| 1 | 1 | Project Outline |  |  |  |  | x | x | x |
| 1 | 1 | Create Teams Folder |  |  |  |  |  |  | x |
| 2 | 2 | Select Topic | x |  |  |  |  |  |  |
| 2 | 2 | Find Data |  | x |  |  |  |  |  |
| 2 | 2 | Create Proposal |  |  |  | x | x | x | x |
| 3 |  | Peer Reviews | x | x |  |  |  |  |  |
| 3 |  | Begin Milestone 3 |  |  |  | x | x | x | x |
| 4 |  | Data Cleanup | x | x |  | x |  |  |  |
| 4 |  | Creating Dataset |  |  |  | x |  |  |  |
| 4 |  | Exploratory Analysis |  |  |  |  | x | x | x |
| 5 |  | Continue Exploratory Analysis | x | x |  | x | x | x | x |
| 6 | 3 | Complete Preliminary Analysis | x | x |  |  |  |  |  |
| 6 | 3 | Draft Preliminary Analysis Document |  |  |  | x | x | x | x |
| 7 |  | Peer Reviews | x | x |  |  |  |  |  |
| 8 |  | Refine Preliminary Analysis | x | x |  | x | x |  |  |
| 8 |  | Begin Milestone 4 |  |  |  |  |  | x | x |
| 9 | 4 | Split Data & Create Model | x | x |  |  |  |  |  |
| 9 | 4 | Interpret Model Results |  | x |  | x | x | x | x |
| 9 | 4 | Formulate Conclusions/Recommendations |  |  |  | x | x | x | x |
| 10 |  | Peer Reviews | x | x |  |  |  |  |  |
| 11 |  | Begin Final Paper | x | x |  | x | x | x | x |
| 11 |  | Begin Final Presentation | x | x |  | x | x | x | x |
| 12 | 5 | Complete Final Paper | x | x |  | x | x | x | x |
| 12 | 5 | Complete Final Presentation | x | x |  | x |  |  |  |
| 12 | 5 | Record Final Presentation |  |  |  |  | x | x | x |

***Final Notes:***

I will technically be starting this project late since I will be missing the first two weeks of the term due to being out of the country on my honeymoon. At the time of this submission, I will already be in the third week of the course. Luckily, I have already selected a topic and dataset to use and can quickly get back on track with this project’s proposed plan. The amount of time I have during the term to devote to my coursework ebbs and flows based on what time of the month it is due to my job. I usually have more time later in the month than in the beginning, so my rough schedule table reflects that as well as the fact but not the fact that I was out of the country and unable to work on this project at the beginning of the term. I also have regular obligations on Wednesday nights that will make working on the project difficult so that day will be left blank. Any time spent working on a Wednesday will be a bonus.