BAN 601 –Project

1. Project Task
   1. This project can be a group project or an individual project. Please choose your preference by update the google sheets at this link

<https://docs.google.com/spreadsheets/d/1QCe0j5clPkI5IFg0-xIqn3WBDIbbIoDK2o-zf-gvXgM/edit#gid=0>

* 1. Download the daily summaries of weather data from <https://www.visualcrossing.com/> website. Please find the instructions to signup and how to download the data here <https://www.visualcrossing.com/resources/documentation/weather-data-tutorials/how-can-i-download-weather-history-data-as-a-csv-file/>
  2. Download the daily summaries of following zip codes (94017, 94105, 94127, 94132, 10001, 10006, 10011, 10017) for the year 2021
  3. Using pandas load this downloaded data into pandas dataframe
  4. Please find the geo-data.csv file on the blackboard under project section
  5. Using pandas load this geo data into pandas dataframe
  6. Join the 2 datafames based on zip code. The new dataframe will have city, state and county information also
  7. Now check if there are any null values in these new columns and update them appropriately
  8. Using matplotlib generate the following graphs
     + 1. Stacked bar chart of max temperatures for each zip code in year 2021
       2. Draw a line graph of average temp of each zip code for month
       3. Draw a heated map of the San Francisco region using BaseMap and the max temperatures of each zip code of San Francisco
  9. Remember to use try/except block where necessary
  10. Remember to write separate functions where necessary. At least one user defined function should be written
  11. You can use jupyter notebook or any other cloud notebook to work on this project
  12. You should name python file as [group\_num]\_project.ipynb

**Deliverables**

1. Submit the notebook file (.ipynb). Your python files should be named as [group\_num]\_project.ipynb
   1. Group\_num is the group number from the google sheet you filled in the 1st step
   2. If you name your file incorrect you will not earn any credit. Zero points will be given if you miss naming your file correctly
2. Do not send your homework submission to my email. Make sure to submit your homework submission via blackboard.