Communicate Data Findings

REVIEW

CODE REVIEW

HISTORY

Meets Specifications

Congratulations! ⭐

This is a fantastic submission! You have systematically approached this investigation, framed interesting questions and used your programming skills effectively to find justified answers for the same. Well done!

You have also learnt how to create an aesthetically pleasing slideshow using `nbconvert` that is able to convey the most important findings of your report to an audience.

I have included some links to useful resources in the individual comments. For example, *learning about interactive plots* would be a nice step forward at this point. Since EDA is often a precursor to building ML models, I also recommend reading this resource which summarizes the process in a succinct manner :

- Exploratory data analysis, feature selection for better ML models

I hope this was a great learning experience. Keep learning and stay Udacious!

All the best for your future endeavors!

Code Quality

✓

All code is functional (i.e. no errors are thrown by the code). Warnings are okay, as long as they are not a result of poor coding practices.

Great! The code looks functional.

✓

The project uses functions and loops where possible to reduce repetitive code. Comments and docstrings are used as needed to document code functionality.

Nice work! Pandas has been used mostly and the usage of code comments has also been demonstrated.

Proper use of commenting can make code maintenance much easier, as well as helping make finding bugs faster. Further, commenting is very important when writing functions that other people will use. Remember, well documented code is as important as correctly working code.

You can go read this post which explains the use and types of comments in a nice manner!

Exploratory Data Analysis

✓

The project (Parts I alone) contains at least 15 visualizations distributed over univariate, bivariate, and multivariate plots to explore many relationships in the data set. Reasoning is used to justify the flow of the exploration.

Great! You have a nice collection of exploratory plots. You have covered Univariate, Bivariate and finally Multivariate plots as part of your investigation.

As part of an "extra reading", I recommend going through the below links. These will help with structuring your investigation in a logical and meaningful manner :

- Five Rules of Data Exploration
- Data Exploration techniques to go from Data to Insights

The Python Graph Gallery is an excellent resource for the various plot options available to you. Its separate module "From Data to Viz" allows you to view the appropriate plot types based on the relationship needed to be shown!

✓

Questions and observations are placed regularly throughout the report, after each plot or set of related plots.

> **Tip: Use the ""Question-Visualization-Observations"" framework throughout the exploration.**
>
> **Tip: For the Part I notebook, use *File > Download as... > HTML or PDF* menu option to generate the HTML/PDF.**

Great! Your commentary is clear and concise.

✓

"Visualizations made in the project depict the data in an appropriate manner that allows plots to be readily interpreted. This includes choice of appropriate plot type, data encodings, transformations, and formatting (title, axis-labels) as needed.

> **Tip: Do not overplot or incorrectly plot ordinal data."**

Great! Your plots are sufficiently detailed to make them interpretable.

SUGGESTED READING

While there are many Python plotting libraries, only a handful can create interactive charts that you can embed online and distribute. To understand this, I recommend this post :

- 5 Python Libraries for Creating Interactive Plots

Explanatory Data Analysis

✓

The README.md must include a summary of main findings that reflects on the steps taken during the data exploration. It should also describes the key insights that are conveyed by the explanatory presentation.

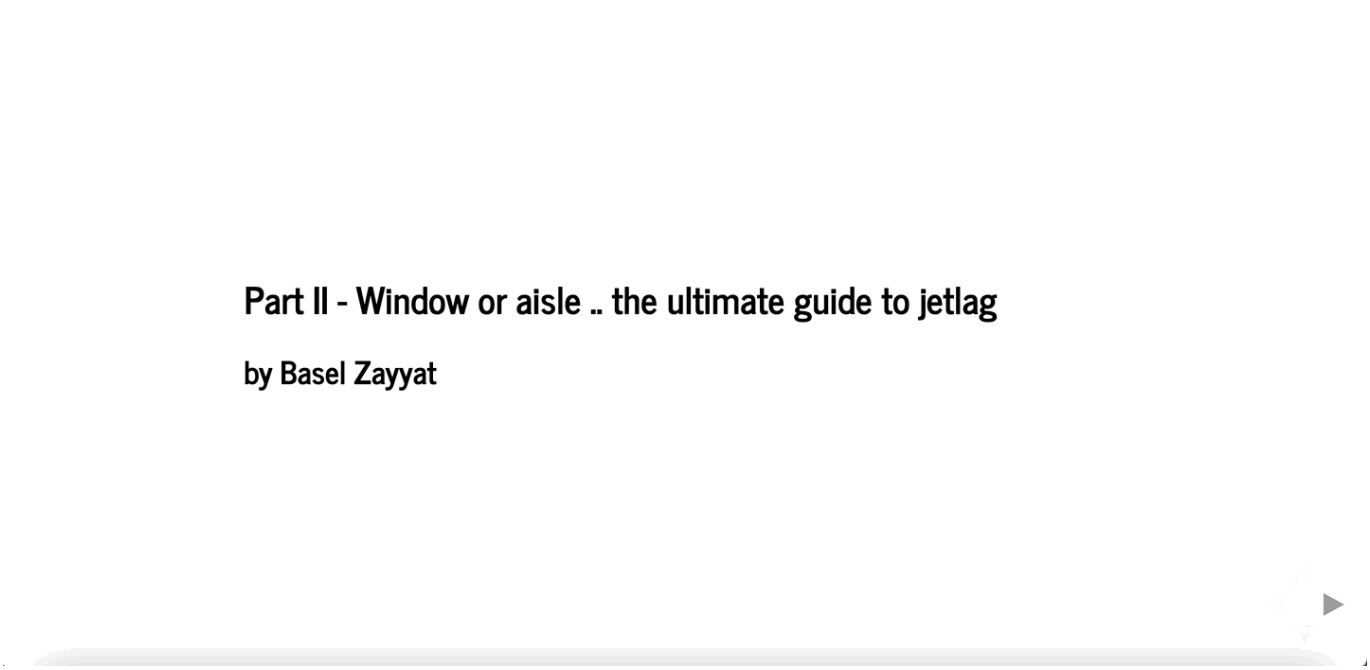
> Tip: The README.md summary is based on the exploration report (Part I notebook) and will guide your explanatory slide deck (Part II notebook) .

✓

- A slideshow (HTML file) is provided, with at least 3 visualizations, to convey key insights. Only selective plots are added to the slideshow from the exploratory analysis.
- The total number of visualizations in the slideshow is less than 50% of the number of visualizations in the exploratory analysis. For example, if the exploratory analysis (Part I) has 18 visualizations, the slideshow can have (3 - 8) visualizations.
- The key insights in the slideshow match those documented in the README.md summary.
- Each visualization in the slideshow is associated with comments that accurately depict their purpose and observation.

> Tip: For Part II notebook, use the `jupyter nbconvert` command to generate the HTML slide show.

Nice work! You have included an HTML slideshow that contains a selection of your *key insights*, as expected!



All plots in the slideshow are appropriate, meaning the plot type, encodings, and transformations are suitable to the underlying data.

All plots in the slideshow are polished, meaning all plots have a title with labeled axes and legends. Labels include units as needed. In other words, each plot must have - chart title, x/y axis label (with units), x/y ticks, and legend.

This is the culmination of your investigation. Since this slideshow is meant to be consumed by others, it is important that its contents are *finalized* and well *polished*! Your presentation meets these requirements. Nice work!

I would highly recommend referring the following Duke University's document regarding Chart Dos and Don'ts :

- Top 10 Dos and Don'ts for Charts and Graphs

DOWNLOAD PROJECT

RETURN TO PATH