



## Peer-graded Assignment: Becoming an Independent Data Scientist

[Instructions](#) [My submission](#)[Discussions](#)

### Becoming an Independent Data Scientist

Submitted on June 21, 2020

[Shareable Link](#)**PROMPT**

From time to time, Dr. Chris Brooks may want to share your work anonymously (via social media channels such as Twitter), to highlight some of the accomplishments of learners in this course.

If you agree that you are comfortable with instructor sharing your Assignment #4 as an example of great work, please type YES in the text box.

Yes

**PROMPT**

State the region and the domain category that your data sets are about (e.g., Chaohu, China and sports or athletics).

Worldwide religion, Europe and the United States

**RUBRIC**

Has the learner identified the region and the domain category that their data sets are about (e.g., Chaohu, China and sports or athletics)?

0 points

The learner did not identify the region and domain category that their data sets are about.

2 points

**The learner identified the region and domain category that their data sets are about.**

**PROMPT**

Create a research question about the domain category and region that you identified.

How religion has changed from 1945 until 2010 over the world? What's the difference in religion between Europe and the United States?

**RUBRIC**

Has the learner stated a research question about the domain category and region that they identified?

0 points

The learner did not state a research question that related to the domain category and region they identified.

2 points

**The learner did state a research question that related to the domain category and region they identified.**

**PROMPT**

Provide at least two links to publicly accessible datasets. These could be links to files such as CSV or Excel files, or links to websites which might have data in tabular form, such as Wikipedia pages.

- <https://www.kaggle.com/arthurtok/global-religion-1945-2010-plotly-pandas-visuals/output?select=regional.csv>
- <https://www.kaggle.com/arthurtok/global-religion-1945-2010-plotly-pandas-visuals/output?select=global.csv>

**RUBRIC**

Has the learner provided at least two links to available datasets? These could be links to files such as CSV or Excel files, or links to websites which might have data in tabular form, such as Wikipedia pages.

0 points

The learner did not provide at least two working links to publicly available data sets (including links to CSV or

1945-2010-plotly-pandas-visuals/output?  
select=national.csv

data sets (including links to CSV or Excel files).

2 points

The learner did provide links to at least two working links to publicly available data sets (including links to CSV or Excel files).



If you would like to provide feedback on the links, please do so here.



Saptakatha Adak

nice



Saeed Vasebi

NA

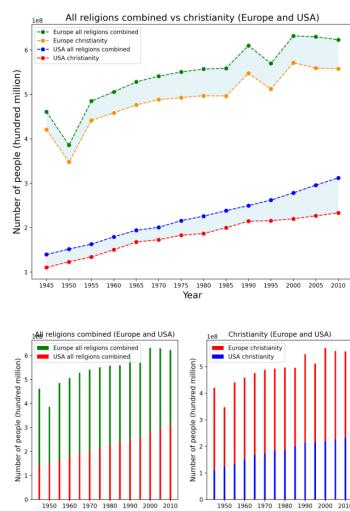


Lina Lin

**PROMPT**

Upload an image which addresses your research question.

In addition to addressing your research question, this visual should address Cairo's principles of truthfulness, functionality, beauty, and insightfulness.



**RUBRIC**

Has the learner uploaded an image that addresses their stated question?

0 points

The learner did not upload an image that addresses their stated question.

2 points

**The learner uploaded an image that addresses their stated question.**



**PROMPT**

Provide a short (1-2 paragraphs) justification of how your visual addresses your research question.

This visualization shows religious trends in Europe and the United States (Global religion 1945-2010), how Christianity compares to all religions combined, and how all of this has changed over the last 65 years. I chose kaggle website for this assignment. This website provided three different datasets global, national, and regional. Any unnecessary columns were dropped to provide an easier to understand conception. Three plots were plotted to identify the difference between Europe and the United States religions (Christianity and all religions combined).

The first plot shows the difference between religions in Europe and the United States. The second one indicates the more detailed difference between all religions combined in Europe and the United States and the last one about Christianity. The difference is huge, Europe has always had more people who are religious, in

**RUBRIC**

Has the learner written a short (1-2 paragraph) justification of how their visualization addresses their question?

0 points

The learner has not written a short (1-2 paragraph) justification of how their visualization addresses their question.

3 points

**The learner has written a short (1-2 paragraph) justification of how their visualization addresses their question.**



compassion to the US. Europe shows a bit of variation from 1945 to 1950 the number of religious people has dropped, yet in 1955 it started to show some growth with occasional spikes in 1990 - 2000. The United States shows an upward trend in religiosity since the beginning of the timeline.

#### PROMPT

As this assignment is for the whole course, you must incorporate and defend the principles discussed in the first week, specifically, Cairo's principles of truth, beauty, function, and insight.

For each of the following prompts, please provide a response that links each principle to one or more elements of your visual.

- Describe your design choices for your visual in regards to Cairo's principle of **truthfulness**.
- Describe your design choices for your visual in regards to Cairo's principle of **beauty**.
- Describe your design choices for your visual in regards to Cairo's principle of **functionality**.
- Describe your design choices for your visual in regards to Cairo's principle of **insightfulness**.

Truthfulness - two datasets were provided from the reliable sources.

Beauty - beauty comes from the simpleness. I used teal colors, divided one plot into 3 different, tied to emphasize only main things.

Functionality - I tried to include only necessary things, to make it easy to understand.

Insightfulness - this information is always relevant, interesting data correlation.

#### RUBRIC

Did the learner describe their design choices in regards to Cairo's principle of **truthfulness** (e.g., avoiding misleading representations) and relate them to one or more elements of their visual?

0 points

No, the learner did not describe their design choices in regards to Cairo's principle of truthfulness (e.g., avoiding misleading representations) and did not relate them to one or more elements of their visual?

1 point

**Yes, the learner did describe their design choices in regards to Cairo's principle of truthfulness (e.g., avoiding misleading representations) and relate them to one or more elements of their visual?**



Did the learner describe their design choices in regards to Cairo's principle of **beauty** (e.g., using fonts, colors, and layout that are appropriate and aesthetically pleasing) and relate them to one or more elements of their visual?

0 points

No, the learner did not describe their design choices in regards to Cairo's principle of beauty (e.g., using fonts, colors, and layout that are appropriate and aesthetically pleasing) and did not relate them to one or more elements of their visual?

1 point

**Yes, the learner did describe their design choices in regards to Cairo's principle of beauty (e.g., using fonts, colors, and layout that are appropriate and aesthetically pleasing) and did relate them to one or more elements of their visual?**



Did the learner describe their design choices in regards to Cairo's principle of **functionality** (e.g., choosing a charting type that is appropriate for the stated research question) and relate them to one or more elements of their visual?

0 points

No, the learner did not describe their design choices in regards to Cairo's principle of functionality (e.g., choosing a charting type that is appropriate for the stated research question) and did not relate them to one or more elements of their visual?

1 point

**Yes, the learner did describe their design choices in regards to Cairo's principle of functionality (e.g., choosing a charting type that is appropriate for the stated research question) and did relate them to one or more elements of their visual?**



Did the learner link Cairo's principle of **insightfulness** (i.e., producing a "eureka" or "aha" response in the viewer) with one or more elements of their visual?

- 0 points  
No, the learner did not make any connections between Cairo's principle of insightfulness with one or more elements of their visual.

- 1 point  
**Yes, the learner did make a connection between Cairo's principle of insightfulness with one or more elements of their visual.**



#### PROMPT

Please upload your source code.

[Assignment4\\_2.ipynb](#)

#### RUBRIC

If you want to look at the learner's code, we recommend that you open it through the Jupyter notebook system on the Coursera platform.

**Saptakatha Adak**  
excellent work

**Saeed Vasebi**  
NA

**Lina Lin**  
good

#### OVERALL ASSIGNMENT RUBRIC

In this assignment the focus is more on the mechanics of creating charts, so there is no requirement to create an enlightening chart as described by Cairo. But to explore the issue, please provide comments to the learner on the following:

1. Did the chart created teach you something new about the city/region/country? What did you learn?
2. Do you think this chart answers an interesting question? Why?
3. Name one thing which works and one which could be improved, and how would you improve it.

**Saptakatha Adak**  
excellent work

**Saeed Vasebi**  
NA

**Lina Lin**  
I liked your two different graphs. The graphs were easy to understand. It was interesting to learn that there is a lot fewer people involved in religion in the United States in comparison to Europe.

[Edit submission](#)

#### Comments

Comments left for the learner are visible only to that learner and the person who left the comment.



Share your thoughts...

