

1. Which best practice should you follow to ensure effective data visualization?

1 point

- ☐ Use multiple colors and fonts to make the visualization more vibrant.
- ☒ Label the axes clearly, provide context, and use only necessary data and labels.
- ☐ Avoid legends and titles to keep the visualization uncluttered.
- ☐ Include all available data to provide a comprehensive view, regardless of relevance.

2. What are the layers of the Matplotlib architecture?

1 point

- ☐ Event, Artist Layer, Scripting Layer
- ☐ Renderer, Artist Layer, and Scripting Layer
- ☐ FigureCanvas Layer, Scripting Layer, and Artist Layer
- ☒ Backend Layer, Artist Layer, and Scripting Layer

3. Which plot library is an excellent choice for geospatial data visualization and helps to create interactive and customizable maps?

1 point

- ☐ Seaborn
- ☒ Folium
- ☐ PyWaffle
- ☐ Matplotlib

4. Using Matplotlib magic functions which code starts the command?

1 point

- ☐ `$matplotlib outline`
- ☒ `%matplotlib inline`
- ☐ `%matplotlib jupyter-notebook`
- ☐ `%matplotlib`

5. Area plots are particularly effective in depicting data of what nature?

1 point

- ☐ Population demographics
- ☐ Numerical data
- ☐ Metadata
- ☒ Continuous dataset

6. What is a way of statistically representing the distribution of the data through five main dimensions? 1 point
- ☐ Histogram
 - ☐ Line plot
 - ☒ Box plot
 - ☐ Scatter plot
7. Which dimension of the box plot signifies the smallest number in the sorted data? 1 point
- ☐ First quartile
 - ☒ Minimum
 - ☐ Median
 - ☐ Third quartile
8. Identify the use case for a Word Cloud. 1 point
- ☐ Market share analysis
 - ☒ Content analysis
 - ☐ Project progress tracking
 - ☐ Demographic representation
9. Which specialized plot type in Seaborn is useful for data and modeling relationships? [Select two] 1 point
- ☒ Categorical plot
 - ☐ Pie plot
 - ☐ Bar plot
 - ☒ Regression plot
10. Folium is a powerful data visualization library in Python that primarily helps people visualize geospatial data. What is its default map style? 1 point
- ☐ Stamen terrain
 - ☐ Stamen toner
 - ☐ Street-level map
 - ☒ Open street map

11. What specific type of map does a Choropleth map represent?

1 point

- ☐ Open street map
- ☐ Stamen toner
- ☒ Thematic
- ☐ Stamen terrain

12. Which tool is the Python framework for building web analytic applications?

1 point

- ☒ Dash
- ☐ Streamlit
- ☐ Voilà
- ☐ Panel

13. What is the recommended starting point for creating figures in Plotly?

1 point

- ☐ Plotly Library
- ☐ Plotly Graph Objects
- ☒ Plotly Express
- ☐ Plotly Dash

14. What does the `@app.callback` decorator tell Dash when used in a Callback function?

1 point

- ☒ It tells that the function is automatically called by Dash whenever an input component's property changes.
- ☐ It tells you to provide the title to the dash app.
- ☐ It tells output component children in the application layout.
- ☐ It tells you to connect the input and output components to the desired properties.

15. What is a callback function?

1 point

- ☐ A line of code
- ☐ An extension
- ☒ A decorator
- ☐ A file