Day-5 Quiz-DataScience-Training

Welcome to the Python Programming Quiz! This quiz tests your knowledge of Python, Pandas,Seaborn and matplotlib. Please read the instructions carefully before starting the quiz.

Instructions and Rules

- **Time Limit:** You have 20 minutes to complete the quiz.
- **Number of Questions:** The quiz consists of 20 multiple-choice questions.
- **Scoring:** Each correct answer is worth 1 point. There is no negative marking for incorrect answers.
- **Single Attempt:** You are allowed only one attempt to complete the quiz.
- **Required Fields:** All questions are mandatory. You must answer each question to submit the quiz.
- **Resources:** This is a closed-book quiz. Do not use any external resources, including books, notes, or the internet.
- **Honesty:** Please answer the questions honestly and to the best of your ability. Cheating or dishonesty will result in disqualification.
- **Environment:** Ensure you are in a quiet environment where you can concentrate without interruptions.
- **Technical Issues:** In case of technical issues, please contact the quiz administrator immediately.
- **Retakes:** There are no retake opportunities for this quiz. Ensure you are prepared before starting.

Good luck, and do your best!

* Indicates required question

1. Email *

2. **1. How do you change the color of the lines in a line plot in Matplotlib?** *

Mark only one oval.

- A. plt.plot(x, y, c='r')
- B. plt.plot(x, y, linecolor='r')
- C. plt.plot(x, y, color='r')
- D. plt.plot(x, y, col='r')

3. **2. Which function is used to create subplots in Matplotlib?** *

Mark only one oval.

- A. plt.subplots()
- B. plt.subfigures()
- C. plt.subplotfig()
- D. plt.subplot()

4. **3. What parameter is used to set the width of the bars in a bar plot?** *

Mark only one oval.

- A. barwidth
- B. barwidths
- C. width
- D. linewidth

5. **4. How do you set the x-axis limits in Matplotlib?** *

Mark only one oval.

- A. plt.xlimit()
- B. plt.xlim()
- C. plt.limit_x()
- D. plt.axis_xlimit()

6. **5. What is the command to set the title of the y-axis in Matplotlib?** *

Mark only one oval.

- A. plt.ytitle()
- B. plt.ylabel()
- C. plt.label_y()
- D. plt.title_y()

7. **6. Which function is used to create a pair plot in Seaborn?** *

Mark only one oval.

- A. sns.pair()
- B. sns.pairplot()
- C. sns.pairs()
- D. sns.pair_graph()

8. **7. How do you create a heatmap with annotations in Seaborn?** *

Mark only one oval.

- A. sns.heatmap(data, annot=True)
- B. sns.heatmap(data, annotations=True)
- C. sns.heatmap(data, label=True)
- D. sns.heatmap(data, note=True)

9. **8. Which Seaborn function is used to visualize the distribution of a single variable?** *

Mark only one oval.

- A. sns.histplot()
- B. sns.distplot()
- C. sns.kdeplot()
- D. sns.boxplot()

10. **9. In Seaborn, how do you create a regression plot with a confidence interval?** *

Mark only one oval.

- A. sns.regplot(ci=True)
- B. sns.regplot()
- C. sns.lmplot()
- D. sns.lmplot(ci=True)

11. **10. Which Seaborn function is used to create a categorical scatter plot with points adjusted (jittered) along the categorical axis?** *

Mark only one oval.

- A. sns.stripplot()
- B. sns.swarmplot()
- C. sns.pointplot()
- D. sns.catplot()

12. **11. How can you set the size of a figure in Matplotlib?** *

Mark only one oval.

- A. plt.size()
- B. plt.set_size()
- C. plt.figure(figsize=(width, height))
- D. plt.dimensions()

13. **12. How do you create a grid of subplots in Matplotlib?** *

Mark only one oval.

- A. plt.grid()
- B. plt.subplots()
- C. plt.subplot_grid()
- D. plt.gridplot()

14. **13. How can you add a title to a Seaborn plot?** *

Mark only one oval.

- A. sns.title()
- B. sns.set_title()
- C. plt.title()
- D. plt.header()

15. **14. Which Matplotlib function is used to add a horizontal line across the axis?** *

Mark only one oval.

- A. plt.hline()
- B. plt.axhline()
- C. plt.lineh()
- D. plt.horizon()

16. **15. How do you set the style of Seaborn plots?** *

Mark only one oval.

- A. sns.style()
- B. sns.set()
- C. sns.set_style()
- D. sns.plot_style()

17. **16. What does the plt.gca() function do in Matplotlib?** *

Mark only one oval.

- A. Gets the current axis
- B. Sets the current axis
- C. Adds a new axis
- D. Clears the current axis

18. **17. How do you rotate the x-axis labels in Matplotlib?** *

Mark only one oval.

- A. plt.xaxis.rotate()
- B. plt.rotate_xlabels()
- C. plt.xticks(rotation=angle)
- D. plt.xlabels(angle)

19. **18. What is the purpose of the sns.FacetGrid class in Seaborn?** *

Mark only one oval.

- A. To create a grid of plots for different subsets of data
- B. To create a single plot with multiple facets
- C. To create a plot with multiple axes
- D. To create a plot with multiple subplots

20. **19. How do you create a horizontal bar plot in Seaborn?** *

Mark only one oval.

- A. sns.barplot(orient='horizontal')
- B. sns.hbarplot()
- C. sns.barplot(orient='h')
- D. sns.barplot(x=..., y=...)

21. **20. What is the output of the following code snippet when creating a joint plot in Seaborn?** *

```
import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np
import pandas as pd

# Create a dataset
np.random.seed(10)
data = pd.DataFrame({
    'x': np.random.normal(size=100),
    'y': np.random.normal(size=100)
})

# Create a joint plot
g = sns.jointplot(x='x', y='y', data=data, kind='reg', marginal_kws=dict(bins=15, fill=True))

# Customize the plot
g.plot_marginals(sns.histplot, kde=True, color='m')
plt.show()

```

Mark only one oval.

- A. A joint plot with scatter and regression line without histograms.
- B. A joint plot with scatter and regression line with default histograms.
- C. A joint plot with scatter and regression line with customized histograms.
- D. A joint plot with only the regression line.