

## 2.Data Science(Week 5-7) - Set -2

Total points 10/15

Email \*

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✓ What does a violin plot combine? \* 1/1

- ☒ A) Box plot and KDE (Kernel Density Estimate) ✓
- ☐ B) Histogram and Scatter Plot
- ☐ C) Pie Chart and Line Plot

✓ Which measure is often used to detect outliers in univariate analysis? \* 1/1

- ☐ A) Mean
- ☒ B) Interquartile Range (IQR) ✓
- ☐ C) Correlation Coefficient

✓ If the correlation coefficient between two variables is 0.9, what does it imply? \*1/1

- ☒ A) Strong positive correlation ✓
- ☐ B) Weak correlation
- ☐ C) No correlation

✓ Which measure is used to find how spread out data points are? \* 1/1

- ☐ A) Correlation
- ☒ B) Variance ✓
- ☐ C) Mode

✗ Which plot is most suitable for analyzing the relationship between two continuous variables? \*0/1

- ☒ A) Box Plot ✗
- ☐ B) Scatter Plot
- ☐ C) Pie Chart

Correct answer

- ☒ B) Scatter Plot

✗ Which visualization is commonly used to show the frequency distribution of categorical data? \*0/1

- ☐ A) Line Chart
- ☐ B) Bar Plot
- ☒ C) Violin Plot ✗

Correct answer

- ☒ B) Bar Plot

✓ In a box plot, what represents the median of the data? \* 1/1

- ☐ A) Top whisker
- ☐ B) Bottom whisker
- ☒ C) Central line inside the box ✓

✓ Which central tendency measure is influenced most by outliers? \* 1/1

- ☒ A) Mean ✓
- ☐ B) Median
- ☐ C) Mode

✓ In Bivariate Analysis, what is the main focus? \* 1/1

- ☐ A) Analyzing one variable at a time
- ☒ B) Exploring the relationship between two variables ✓
- ☐ C) Creating machine learning models

✓ What is the primary goal of Univariate Analysis? \* 1/1

- ☐ A) To study the relationship between two variables
- ☒ B) To summarize and describe the main characteristics of one variable ✓
- ☐ C) To predict future data points

✗ When two variables move in opposite directions, what is the correlation called? \*0/1

- ☒ A) Positive correlation ✗
- ☐ B) Negative correlation
- ☐ C) Neutral correlation

Correct answer

- ☒ B) Negative correlation

✗ Which visualization is best for identifying the spread of a single variable? \*0/1

- ☒ A) Scatter Plot ✗
- ☐ B) Histogram
- ☐ C) Line Plot

Correct answer

- ☒ B) Histogram

✓ What is a characteristic feature of a normal distribution? \* 1/1

- ☒ A) Symmetrical bell-shaped curve ✓
- ☐ B) Long right tail
- ☐ C) Flat shape with no peaks

✓ What is the primary purpose of using a heatmap in data visualization? \* 1/1

- ☐ A) To compare time-series data
- ☒ B) To visualize the correlation between multiple variables ✓
- ☐ C) To show the median value of a dataset

✗ What does a positively skewed distribution indicate? \*

0/1

- ☐ A) Data has a longer tail on the right side
- ☒ B) Data has a longer tail on the left side ✗
- ☐ C) Data is symmetrically distributed

Correct answer

- ☒ A) Data has a longer tail on the right side

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