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Your answer

How would you add a 1D array [1, 2, 3] to each row of a 2D array 'arr' of shape (3, 3)? 1 point

- ☐ result = arr + [1, 2, 3]
- ☐ result = add(arr, [1, 2, 3])
- ☐ result = add(arr + np.array([1][2][3]))
- ☐ result = add(arr, np.array([1, 2, 3]))

How would you set all elements of a NumPy array 'arr' that are greater than 10 to 10? 1 point

- ☐ arr[arr > 10] = 10
- ☐ arr = np.where(arr > 10, 10, arr)
- ☐ arr[np.greater(arr, 10)] = 10
- ☐ arr[arr > 10] == 10



How would you apply a custom aggregation function `custom_agg` to group a DataFrame 'df' by column 'A'? 1 point

- ☐ `grouped_df = df.groupby('A').apply(custom_agg)`
- ☐ `grouped_df = df.groupby('A').agg(custom_agg)`
- ☐ `grouped_df = df.groupby('A').transform(custom_agg)`
- ☐ `grouped_df = df.groupby('A').aggregate(custom_agg)`

How would you select all rows in DataFrame 'df' where the column 'A' has values greater than 5 and less than 10? 1 point

- ☐ `selected = df[(df['A'] > 5) & (df['A'] < 10)]`
- ☐ `selected = df[df['A'] > 5 & df['A'] < 10]`
- ☐ `selected = df.query('A > 5 & A < 10')`
- ☐ `selected = df[df['A'].between(5, 10)]`



How would you sort a DataFrame 'df' first by column 'A' in ascending order and then by column 'B' in descending order?

1 point

a) `python sorted_df = df.sort_values(by=['A', 'B'], ascending=[True, False])`

css

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b) `python sorted_df = df.sort_values(by=['A', 'B'], ascending=[False, True])`

c) `python sorted_df = df.sort(['A', 'B'], ascending=[True, False])`

css

Copy code

d) `python sorted_df = df.order(['A', 'B'], ascending=[True, False])`

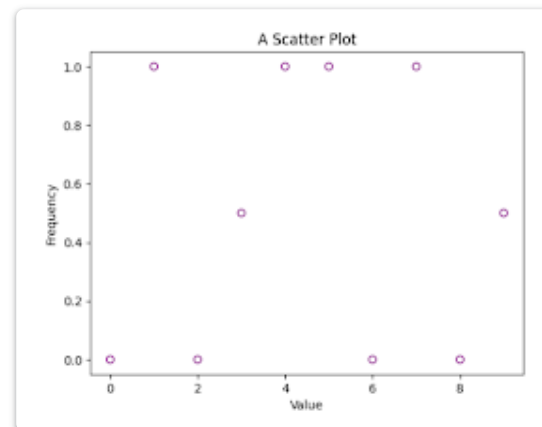
- ☐ `sorted_df = df.sort_values(by=['A', 'B'], ascending=[True, False])`
- ☐ `sorted_df = df.sort_values(by=['A', 'B'], ascending=[False, True])`
- ☐ `sorted_df = df.sort(['A', 'B'], ascending=[True, False])`
- ☐ `sorted_df = df.order(['A', 'B'], ascending=[True, False])`



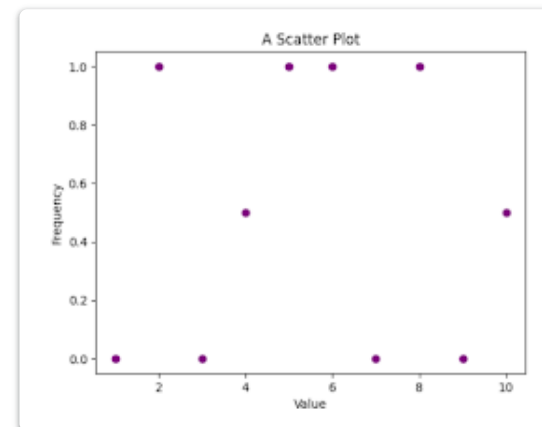
Predict the output for the given piece of code

1 point

```
x = np.arange(10)
y = np.array([0, 1, 0, 0.5, 1, 1, 0, 1, 0, 0.5])
plt.scatter(x, y, marker='o', color='purple')
plt.xlabel('Value')
plt.ylabel('Frequency')
plt.title('A Scatter Plot')
plt.show()
```

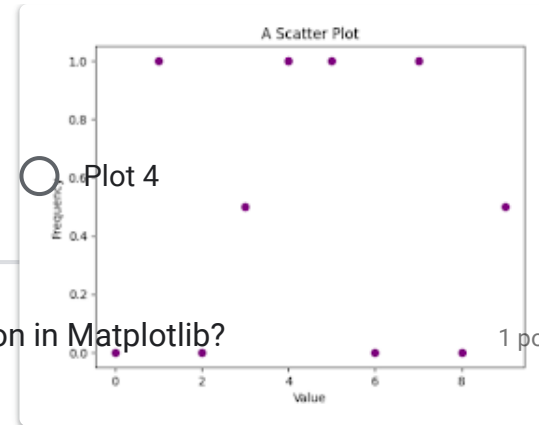
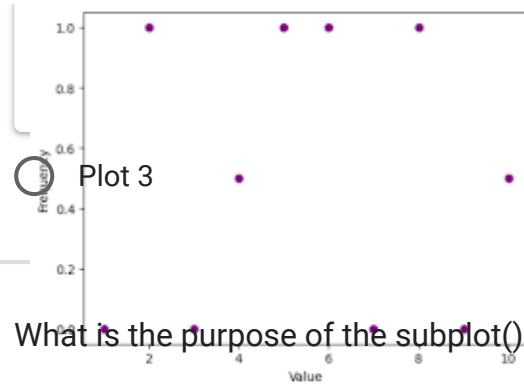


☐ Plot 1



☐ Plot 2





What is the purpose of the subplot() function in Matplotlib?

1 point

- ☐ Create multiple plots in one figure
- ☐ Adjust subplot spacing
- ☐ Add subplots to a figure
- ☐ Set the subplot title

Which of the following is the correct syntax to create a histogram with specified number of bars?

1 point

- ☐ plt.hist(x, bar=10)
- ☐ plt.histogram(x, bars=10)
- ☐ plt.histogram(x, bins=10)
- ☐ plt.hist(x, bins=10)

Which of the following are feature scaling techniques?

1 point

- ☐ Min-Max Scaler
- ☐ Label Encoder
- ☐ Normalization
- ☐ Mode Imputation

To fill in the missing values for the data containing outliers, which imputation method is best preferred? 1 point

- ☐ Mode imputation
- ☐ Median imputation
- ☐ Mean imputation
- ☐ None of the above

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