

Lab 10

1. Complete the following task:
 - Using a DataFrame, create a 5x5 table with random integer values between 1 and 100. Name the columns as 'A', 'B', 'C', 'D', 'E'.
 - Select the value at the second row and third column of the DataFrame using both label-based indexing (.loc[]) and position-based indexing (.iloc[]).
 - Select all rows where the value in column 'B' is greater than 50.
2. Complete the following task:
 - Create a DataFrame containing information about sales transactions (e.g., 'Product', 'Date', 'Amount'). Group the data by 'Product' and calculate the total sales for each product.
 - Apply multiple aggregation functions (sum, mean, max) to the 'Amount' column after grouping by 'Product'.
3. Pivot Table
 - Create a DataFrame with columns: 'Date', 'City', 'Sales'. The data should contain sales for different cities over several days.
 - Create a pivot table to show the total sales by 'City' for each 'Date'. Use the .pivot_table() function.
 - Modify the pivot table to show the average sales per city for each day.

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