Practice Exercise: EDA With Python

The following is a post-class exercise for practicing exploratory data analysis using Python.

Note: This is neither a graded assessment nor has any time restraints for completion.

Case Study Number & Title	5. Analyzing the credit card expenditure and repayment of bank customers
Background Information	A bank has data available from their credit card processor that identifies the types of consumers and their business spending behaviors over a span of 3 years.
Problem Statement/ Business objectives	Analyze the credit card expenditure and repayment patterns of the credit card users using Python.
Data, Information for case analysis	A modified sample of data is provided as an xlsx file. Below is the source and attribute information. Source link: https://www.kaggle.com/datasets/darpan25bajaj/credit-card-exploratory-data-analysis Data Description **Customer:** The unique ID assigned to each customer **Segment:** The occupation category/type of the customer **Date:** The date of usage of credit card by the customer **Type:** The product/service type on which the customer has used their credit card **Amount spent:** The amount of money spent by the customer as on the date given **Amount repaid:** The amount of money repaid by the customer as on the date given
Questions	1. Extract the month and year from the Date column using appropriate functions.

	2. Conduct a segment-wise analysis of expenditure and repayment by the customers across the years in question. 3. What's your take on the movement of repayment behavior of the customers over the years in consideration? 4. What kind of purchase of a good or service has been spent by the customers the most on in the year 2004? 5. What kind of credit card has been used the most on an average to make purchases in the year 2006?
Solution	A sample solution also provided with the dataset
Deliverables for Solution and Rubric	Non-graded assessment
Key Takeaways/Results	Exploring and analyzing data using Python and deriving meaningful insights.