

Title: API Development and Data Transformation

Objective: The objective of this assignment is to develop APIs, using the attached dataset, of purchases of different softwares through out the year. Candidates are free to use the dataset directly or import it in any database, if importing , make sure to include a migration file or readme steps so that we can run and check the APIs ourselves.

Dataset: Card transaction data:

https://drive.google.com/file/d/1YfhCPZbofAekMy9tPH_7ZXChVX8w_OUF/view?usp=sharing

Evaluation Criteria:

The assignment will be evaluated based on the following criteria:

- Modular and clean code.
- Accuracy and completeness of data returned through APIs.
- Proper input validations.
- Brown points for test cases and api documentation

Note: You have the freedom to choose the programming language and frameworks for API development, long as they meet the assignment requirements.

Api 1:

End point : /api/total_items ,

API Use Cases :

1. Total item (total seats) sold in Marketing for last in q3 of the year?

Expected O/P: returns integer

Parameters: {start_date: DATE, end_date: DATE, department: string}

Api 2:

End point : /api/nth_most_total_item ,

API Use Cases:

1. What is the 2nd most sold item in terms of quantity sold in q4,
2. What is the fourth most sold item in terms of Total price in q2?

Expected O/P: returns string name

Parameters: { item_by: ("quantity" || "price"), start_date: DATE, end_date: DATE, n:integer }

Api 3:

End point : /api/percentage_of_department_wise_sold_items

API Use Cases:

1. What is the percentage of sold items (seats) department wise?

Expected O/P: {dept_name: x%,..... }

Parameters: {start_date: Date, end_date: Date}

Api 4:

End point : /api/monthly_sales

API Use Cases:

1. How does the monthly sales for any product look like?

Expected O/P: [1908.0, ... 1952.0] for all 12 months
Parameters: {product: String, year: Number}

Note : In post man please create request for these use cases and share the collection along with your assignment

please add readme file on how to setup code env on local setup if possible