

XYZ TECH is a Neo vehicle insurance provider based in major Indian city. The dataset contains insurance claims filed by customers during April 2025, including details like claim amounts, premiums collected, payment status, and rejection reasons (if any).

Below is columns description:

Column Name	Description
CLAIM_ID	Unique identifier for each insurance claim.
CLAIM_DATE	Date on which the claim was filed.
CUSTOMER_ID	Unique ID assigned to the customer filing the claim.
CLAIM_AMOUNT	Total amount claimed by the customer (in INR).
PREMIUM_COLLECTED	Amount of premium collected from the customer for the policy (in INR).
PAID_AMOUNT	Amount actually paid to the customer (in INR).
CITY	City where the customer resides (limited to 4 major Indian cities).
REJECTION_REMARKS	Short reason for claim rejection if PAID_AMOUNT is zero, else left blank.

1. You are provided with a dataset in CSV format, where the columns represent various data attributes. Your task is to write clean, reusable, and well-structured Python code to automate pre-process of the data. The pre-processing tasks involve cleaning, handling missing, invalid, null values and data types.

Key Requirements:

- Do not use any external libraries like pandas, numpy, or csv. You are only allowed to use basic Python for this task.
 - Your function will take csv file as input parameter and return cleaned data.
2. XYZ TECH is considering shutting down operations in one of the four cities — Pune, Kolkata, Ranchi, or Guwahati — to optimize costs. As a data scientist, analyze the April 2025 claims data and recommend which city should be considered for closure based on data-driven insights.
3. You are provided with a Python function `complex_rejection_classifier` that is designed to classify rejection remarks into predefined. The function is intended to be applied to the `REJECTION_REMARKS` column of a `DataFrame`, and generate a new column `REJECTION_CLASS` based on the classification results. However, the function contains several errors that need to be identified and corrected. Your task is to debug and fix the errors in the given function, and then apply the corrected function to the `REJECTION_REMARKS` column of the `DataFrame`. The final output should be a new column `REJECTION_CLASS` with the corrected rejection classifications.

```
(
df['REJECTION_CLASS'] = df['REJECTION_REMARKS'].apply( lambda remark: complex_rejection_classifier(remark) if pd.notna(remark) else 'No Remark'
)
```

Note:

~~Please provide solution in Notebook PDF format only.~~