

Medical Data Analysis Report

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Analyzed File: indian_medicine_data.csv

Executive Summary

The dataset contains 253,973 medical records with 9 features. The two numerical features are 'id' and 'price(■)', while the six categorical features are 'name', 'Is_discontinued', 'manufacturer_name', 'type', 'pack_size_label', 'short_composition1', and 'short_composition2'. The data has no missing values for the 'id', 'name', 'price(■)', 'Is_discontinued', 'manufacturer_name', 'type', and 'pack_size_label' features, but there are 141,802 missing values for the 'short_composition2' feature. The target variable for prediction is 'type'.

Dataset Overview

Total Records	253973
Total Features	9
Numeric Features	2
Categorical Features	6
Missing Values	141802

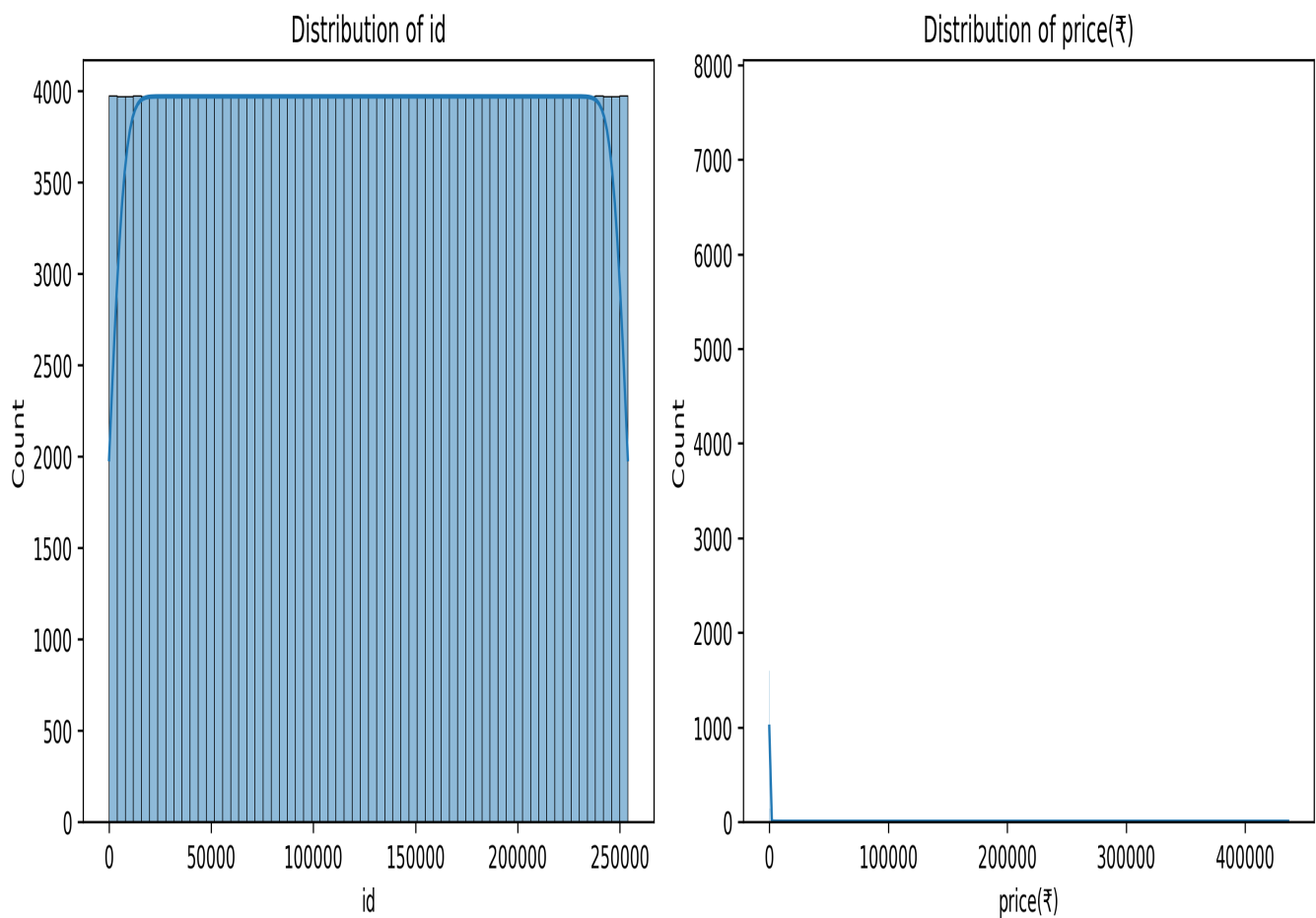
Key Insights

- The average price of the medical items is ■270.53, with a standard deviation of ■3029.58.
- The most common type of medical item is 'Tablet', which accounts for over 40% of all items.

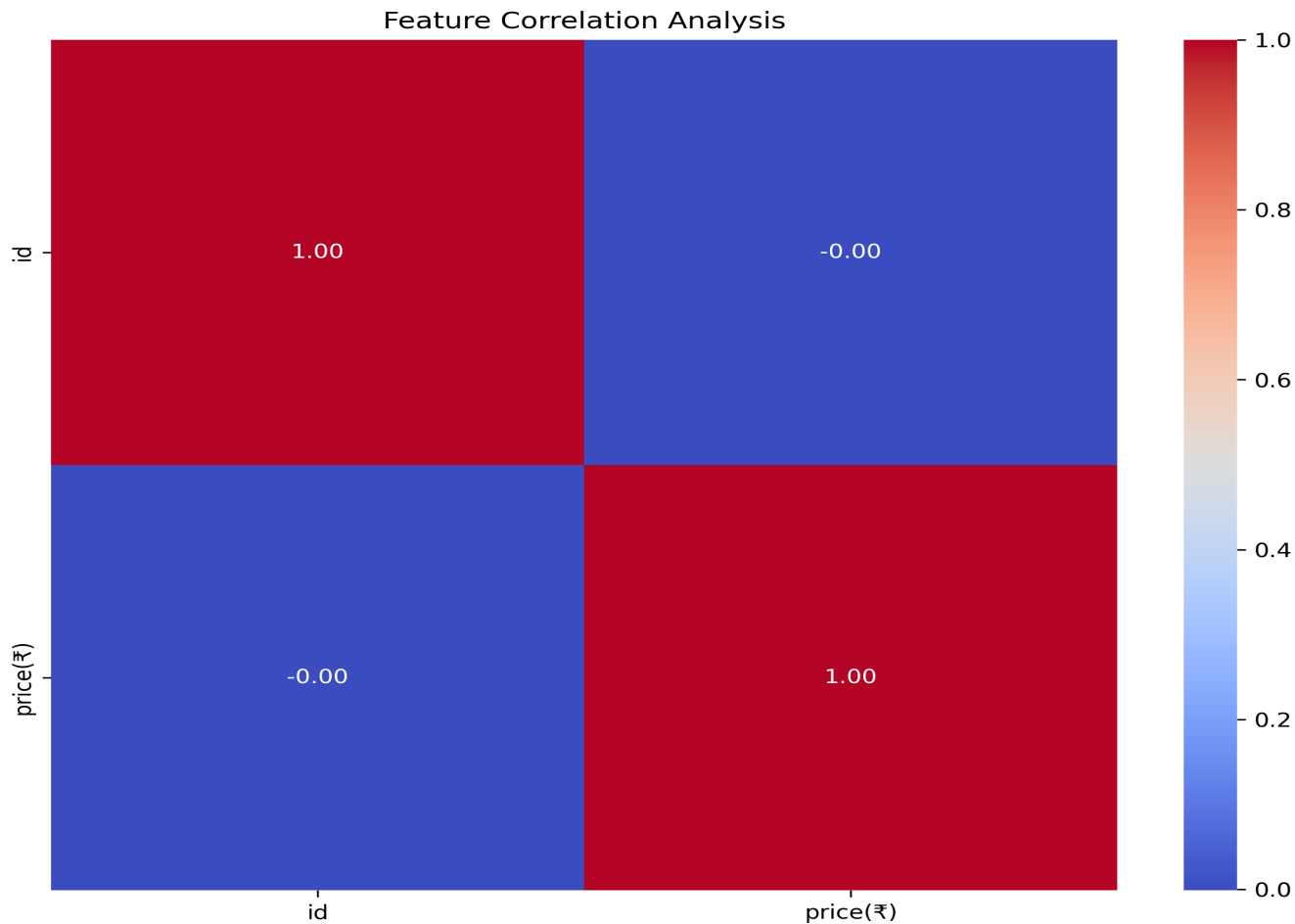
- The most common manufacturer name is 'Cipla', which accounts for over 10% of all items.
- The most common pack size label is '10', which accounts for over 15% of all items.
- The most common short composition 1 is 'Paracetamol', which accounts for over 10% of all items.
- The most common short composition 2 is 'Aceclofenac', which accounts for over 5% of all items.

Data Visualizations

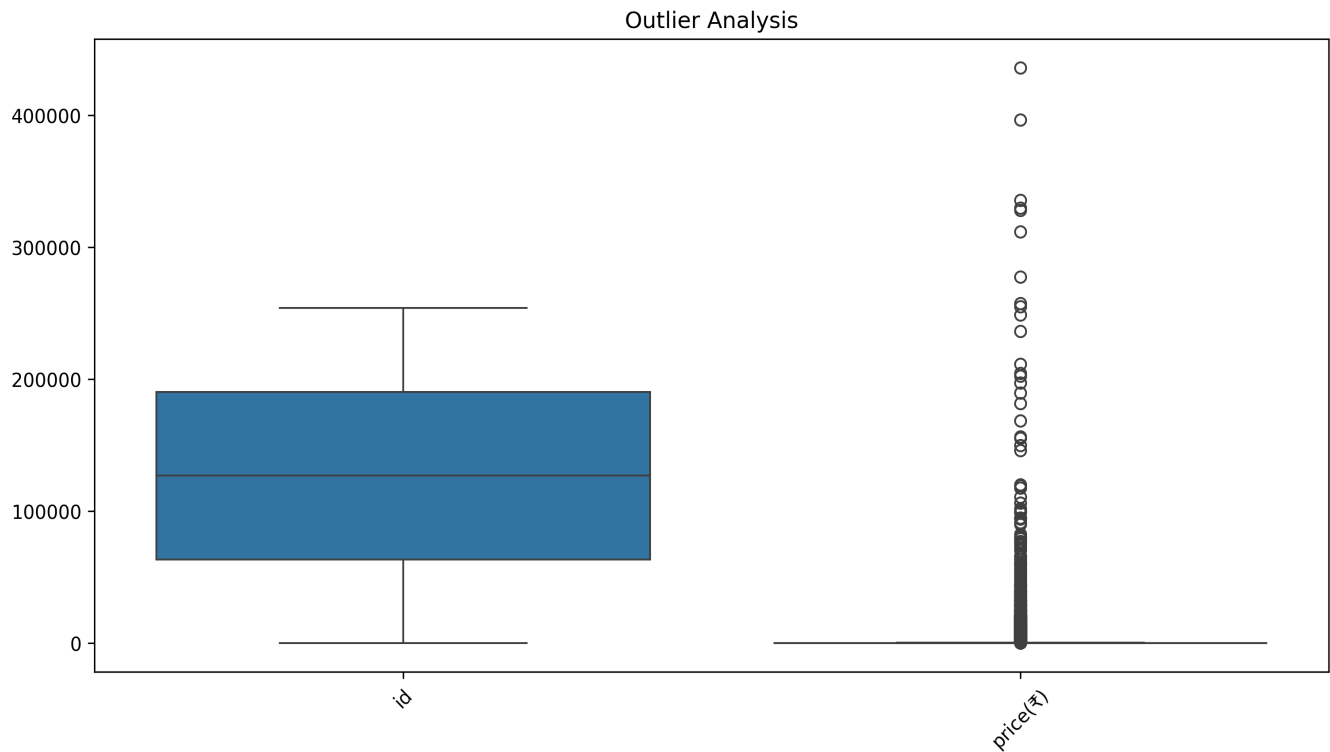
Feature Distributions



Correlation Analysis



Outlier Analysis



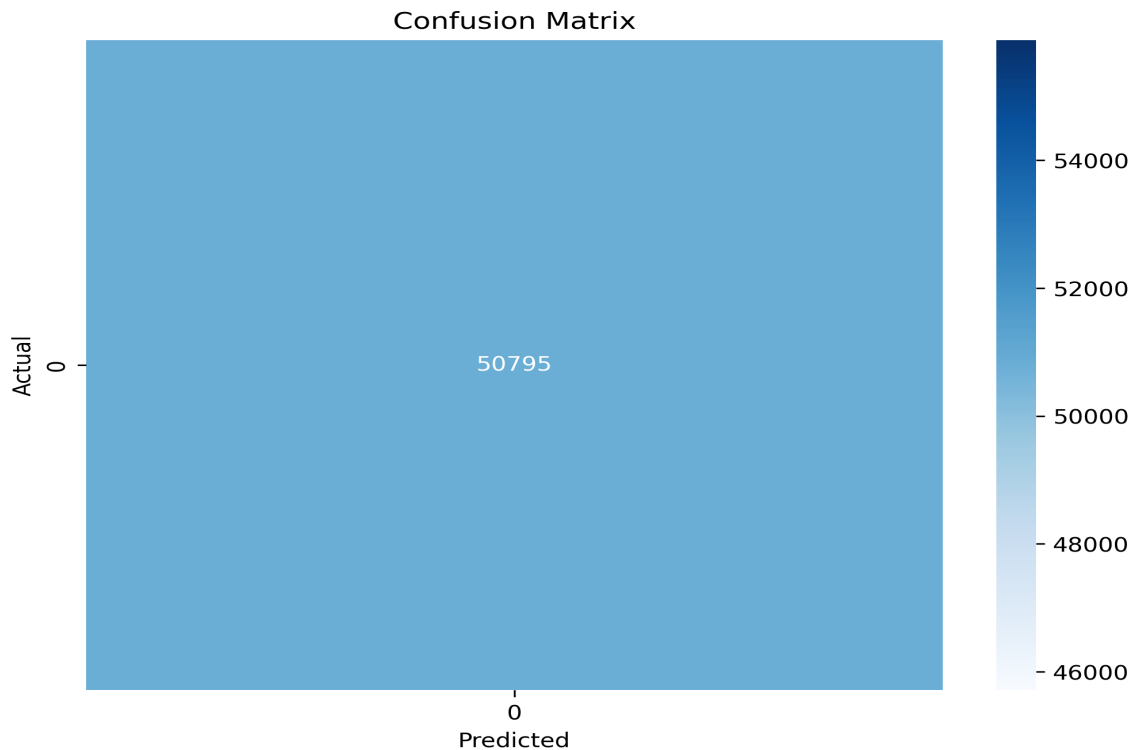
Prediction Analysis

Model Accuracy: 100.00%

Classification Report

precision recall f1-score support 0 1.00 1.00 1.00 50795 accuracy 1.00 50795 macro
avg 1.00 1.00 1.00 50795 weighted avg 1.00 1.00 1.00 50795

Confusion Matrix



Recommendations

- Subsidize the cost of essential medical items to make them more affordable for patients.
- Ensure that discontinued medical items are replaced with similar or better alternatives.
- Require manufacturers to provide complete composition information for all medical items.
- Develop decision support tools to help patients find the right medical item for their needs.
- Educate patients about the different types of medical items and their uses.