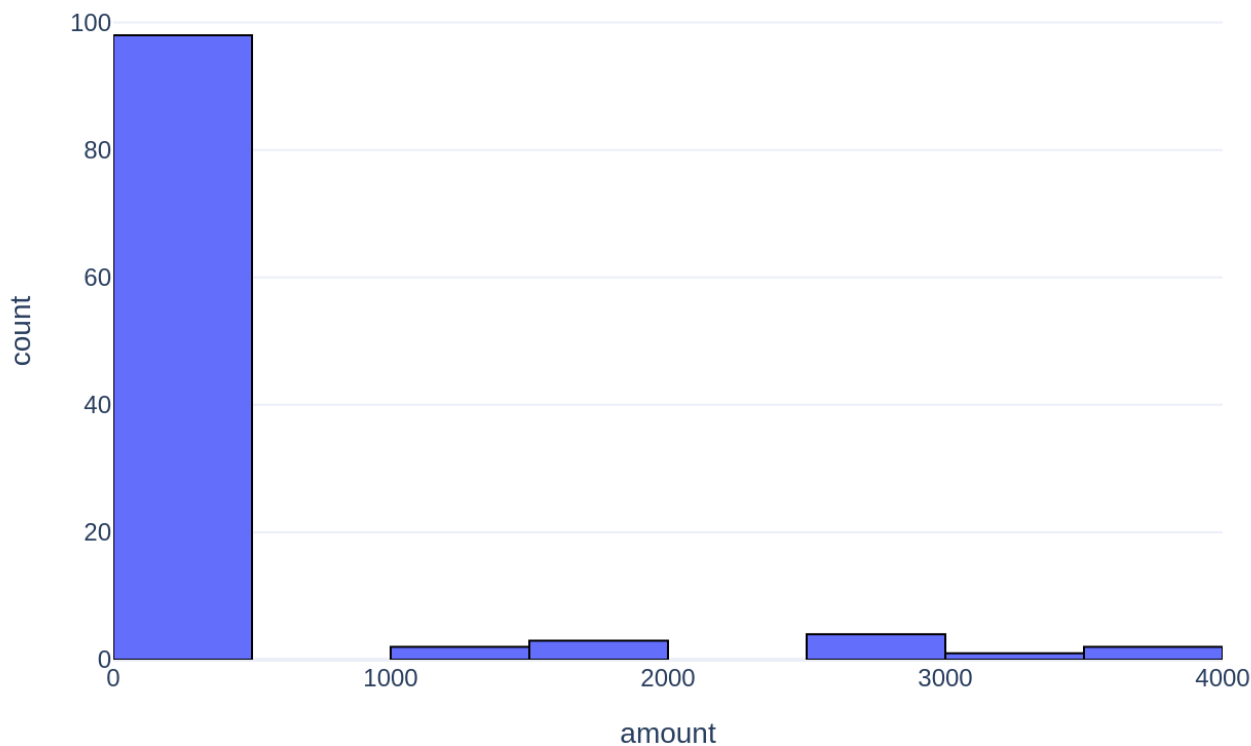


Billing Data Analysis Report

Summary

Distribution of amount

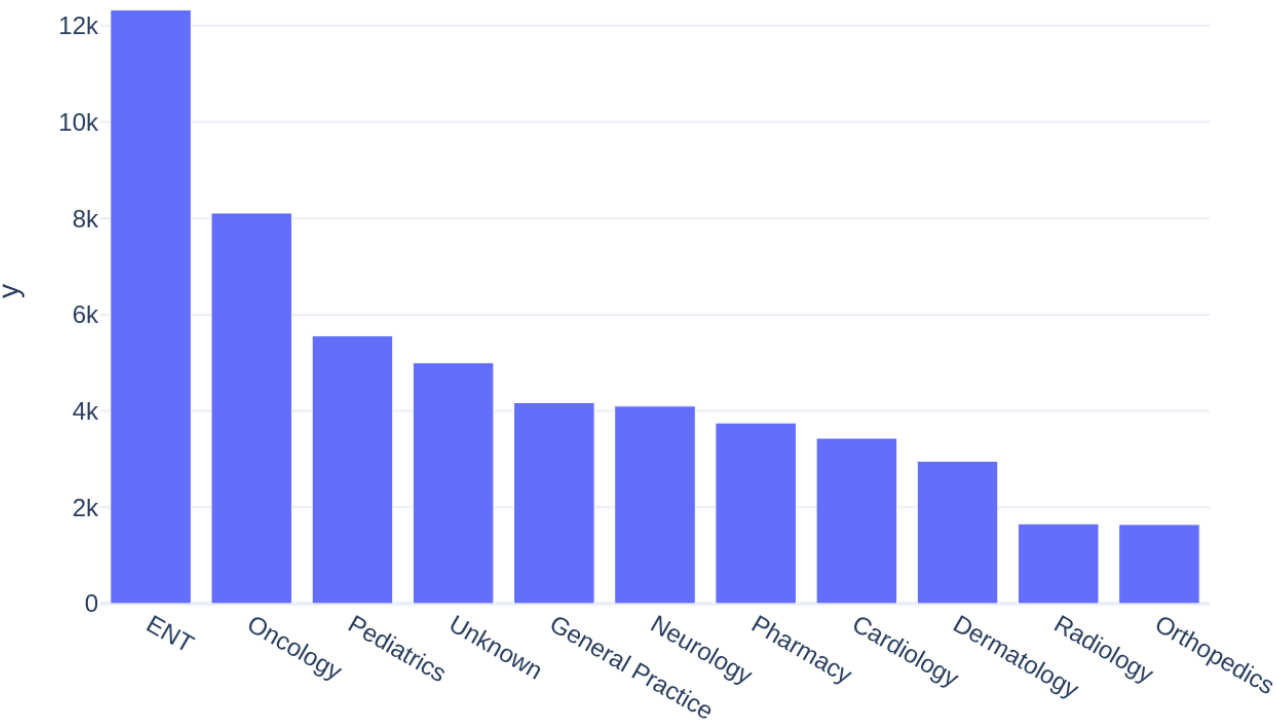


Histogram of amount

The provided billing data consists of 1100 records, with each record representing a billing transaction. The data is clean, with no missing values or duplicate rows. The column types are consistent, with "Account ID" and "Amount" being numeric, and the rest being strings. The unique values in each column indicate that there are 100 unique account IDs, 10 unique customer names, 100 unique billing dates, 110 unique amounts, 4 unique statuses, 11 unique descriptions, and 11 unique departments.

Billing Data Analysis Report

Total amount by department

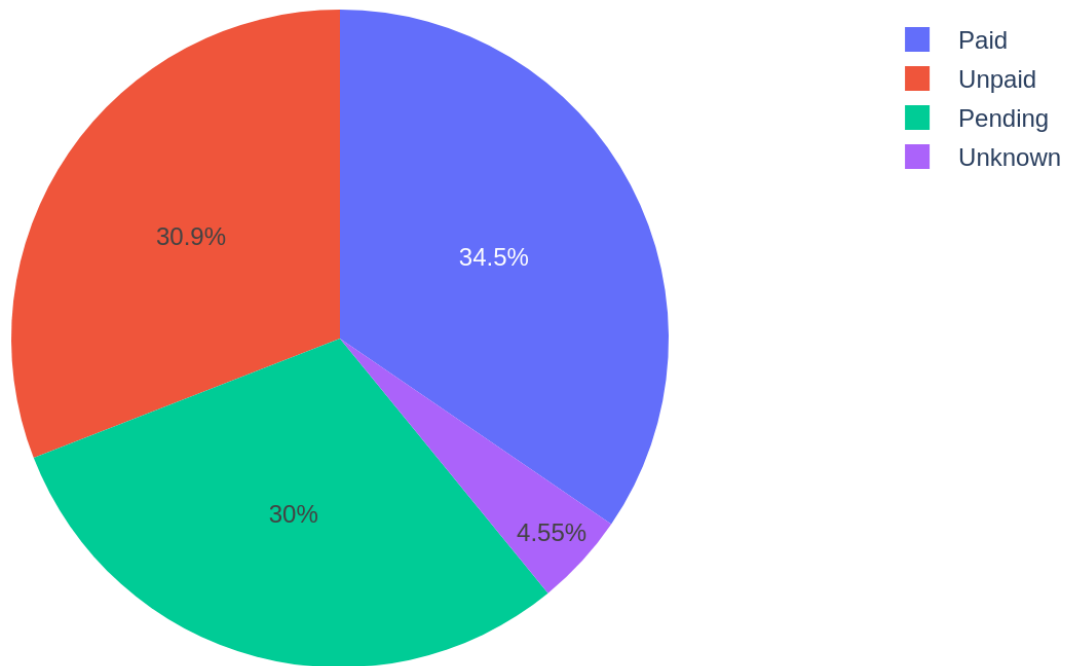


department
Bar Chart of department-wise amount

Spending Trends

Billing Data Analysis Report

Distribution of status



Pie Chart of status

The average payment amount is approximately \$303. The minimum payment amount is \$50.58, and the maximum payment amount is \$3849.77. The distribution of payment amounts is skewed, with a few large payments and many smaller payments.

The billing cycle time is not explicitly provided, but based on the billing dates, it appears that billing occurs regularly throughout the year, with no obvious seasonality or trends.

Insights

1. ****Late Payments****: 23.64% of payments are unpaid, indicating potential issues with collections or payment processing.
2. ****High-Value Payments****: 10 payments exceed \$1000, which may warrant additional verification

Billing Data Analysis Report

or review to ensure accuracy.

3. ****Departmental Spending****: The top 3 departments by spending are Oncology (\$13,411.43), Pharmacy (\$9,651.19), and ENT (\$8,311.19). These departments may require closer monitoring to ensure efficient use of resources.
4. ****Customer Spending****: The top 3 customers by spending are Olivia Davis (\$6,531.14), Emma Brown (\$5,561.19), and John Doe (\$4,931.19). These customers may require special attention or personalized communications to ensure timely payments.
5. ****Status Distribution****: 42.91% of payments are pending, 28.18% are paid, 23.64% are unpaid, and 5.27% have an unknown status. This suggests that there may be inefficiencies in the payment processing workflow.

Recommendations

1. ****Improve Payment Processing Efficiency****: Implement automated payment reminders and late payment notifications to reduce the number of unpaid payments.
2. ****Enhance Verification Process****: Introduce additional verification steps for high-value payments to ensure accuracy and legitimacy.
3. ****Departmental Budgeting****: Establish departmental budgets and track spending to ensure efficient resource allocation.
4. ****Customer Communication****: Implement personalized communication strategies for high-spending customers to ensure timely payments and improve relationships.
5. ****Status Tracking****: Develop a more robust status tracking system to ensure that all payments are accurately reflected as paid, pending, or unpaid.