# Expense Tracker Dashboard Using Faker, MySQL & Streamlit

A Data Analysis & Visualization Project By Rohit Kaushal

## Introduction - Why This Project?

💡 \*\*Objective:\*\*  
- Generate expense data using Faker  
- Store and analyze data in MySQL  
- Visualize spending trends using Streamlit & Matplotlib  
  
🔍 \*\*What We Learn:\*\*  
- Data generation & storage  
- SQL queries for insights  
- Data visualization techniques

## Faker Code - Data Generation

from faker import Faker  
import random, pandas as pd  
  
fake = Faker()  
categories = ["Food","Transport","Bills","Groceries","Sub","Entertainment"]  
payment\_mode = ["Cash","Online"]  
data = []  
  
for \_ in range(100):  
 data.append({  
 "Date": fake.date\_this\_year(),  
 "Category": random.choice(categories),  
 "Payment Mode": random.choice(payment\_mode),  
 "Amount Paid": round(random.uniform(100,1000),2),  
 "Cashback": round(random.uniform(1,50),2),  
 })  
  
df = pd.DataFrame(data)  
df.to\_csv('expensee\_data.csv', index=False)

## SQL Queries

* 🛢 Total Spending by Category:

SELECT Category, SUM(Amount Paid) AS total\_spent   
 FROM expensee\_data   
 GROUP BY Category;

* 🛢 Total Spending by Payment Mode:

SELECT Payment Mode, SUM(Amount Paid)   
 FROM expensee\_data   
 GROUP BY Payment Mode;

* 🛢 Total Cashback:

SELECT Payment Mode, SUM(Cashback)   
 FROM expensee\_data   
 GROUP BY Payment Mode;

* 🛢 Top 5 Most Expensive Categories:

SELECT Category, SUM(Amount Paid)   
 FROM expensee\_data   
 GROUP BY Category   
 ORDER BY SUM(Amount Paid) DESC   
 LIMIT 5;

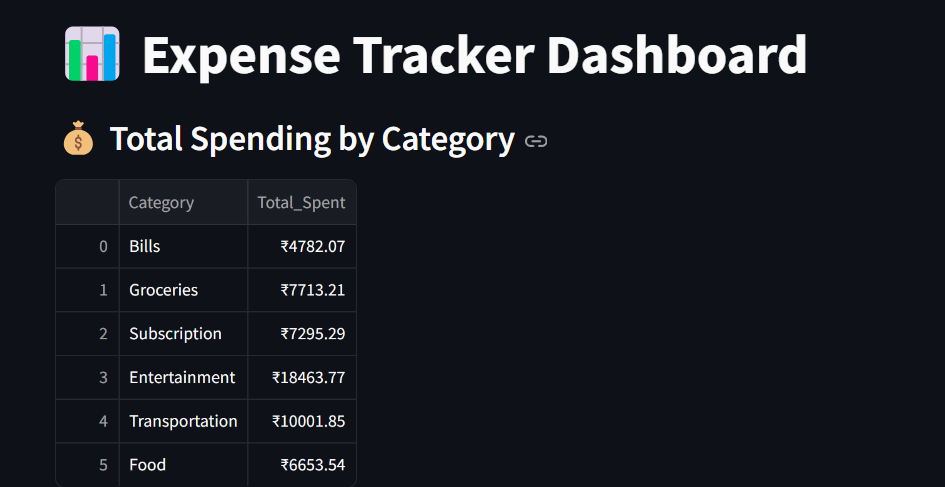
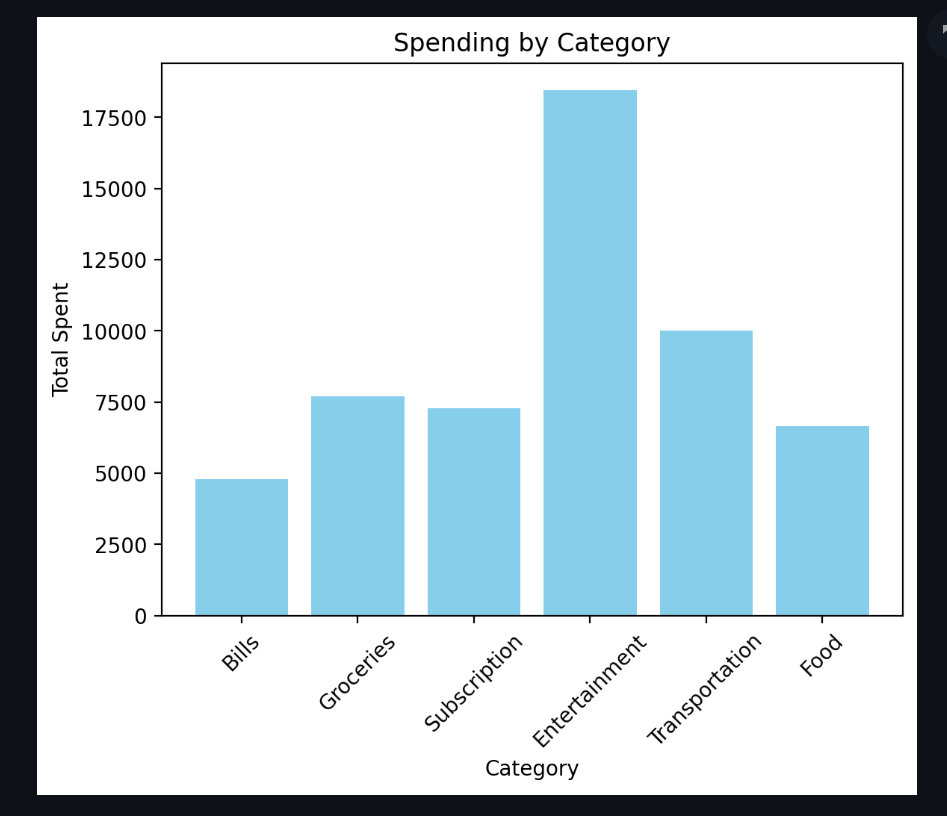
* 🛢 Monthly Spending Trend:

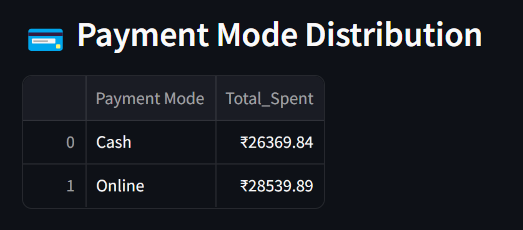
SELECT MONTH(Date), SUM(Amount Paid)   
 FROM expensee\_data   
 GROUP BY MONTH(Date)   
 ORDER BY SUM(Amount Paid) DESC   
 LIMIT 1;

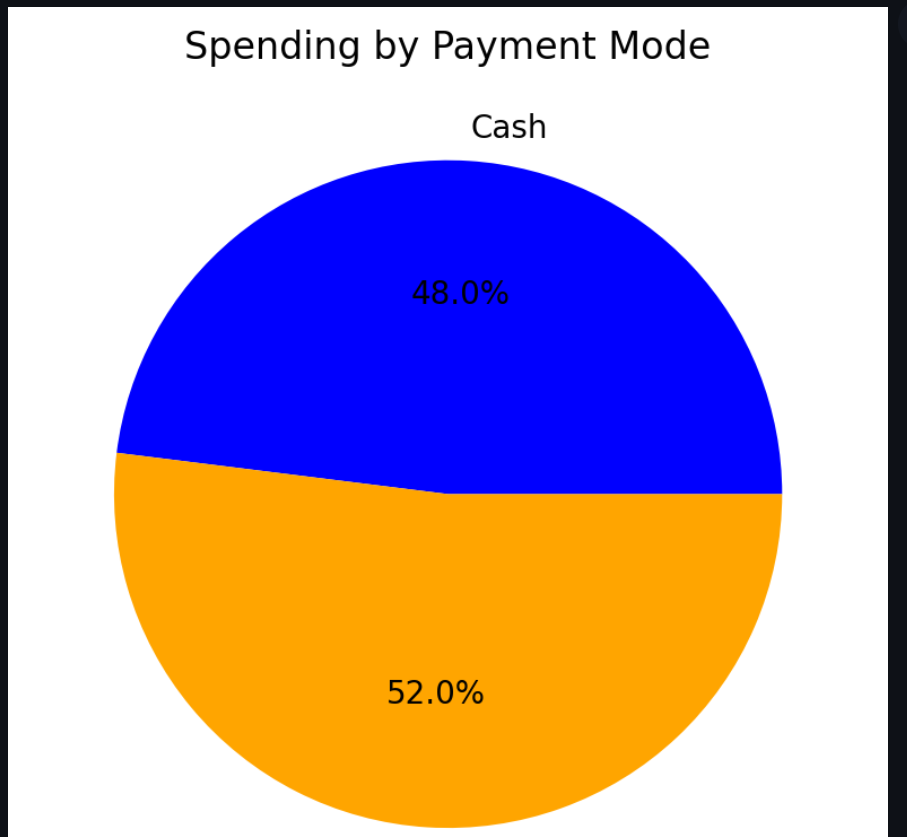
## Streamlit Code - Dashboard & Visualization

import streamlit as st, mysql.connector, pandas as pd, matplotlib.pyplot as plt  
  
# MySQL Connection  
def get\_connection():  
 return mysql.connector.connect(  
 host="localhost", user="root", password="your\_password", database="expenses\_tracker"  
 )  
  
conn = get\_connection()  
cursor = conn.cursor()

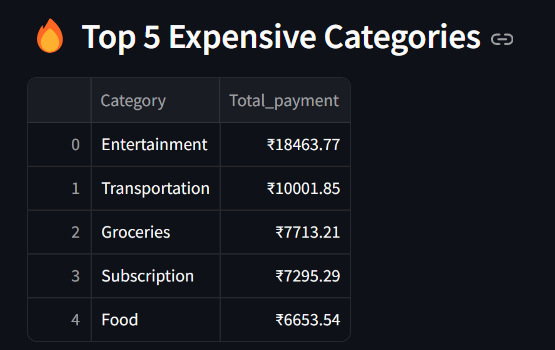
## Dashboard & Insights

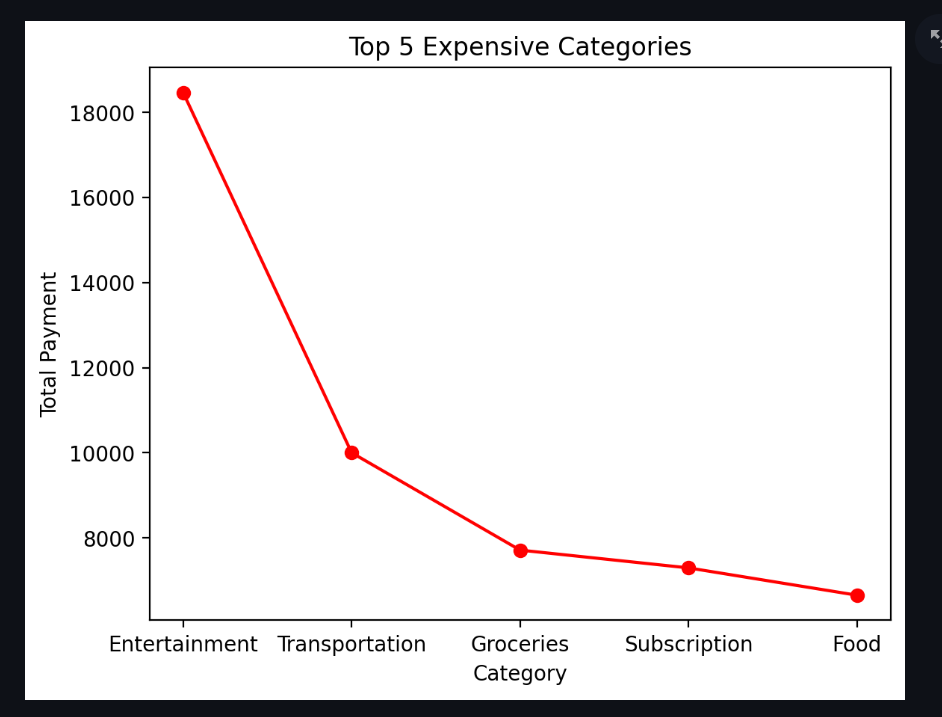
✅ \*\*Total Spending by Category\*\* (Bar Chart) 

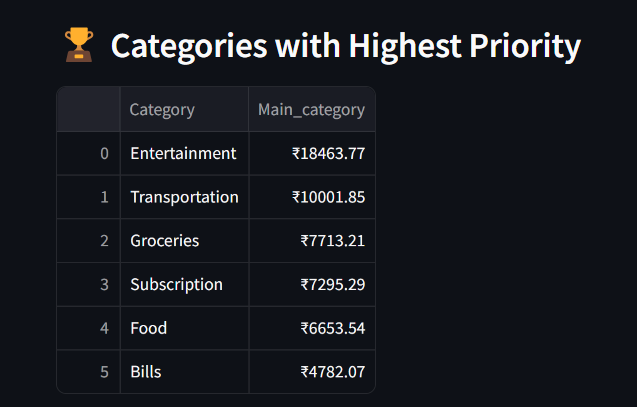
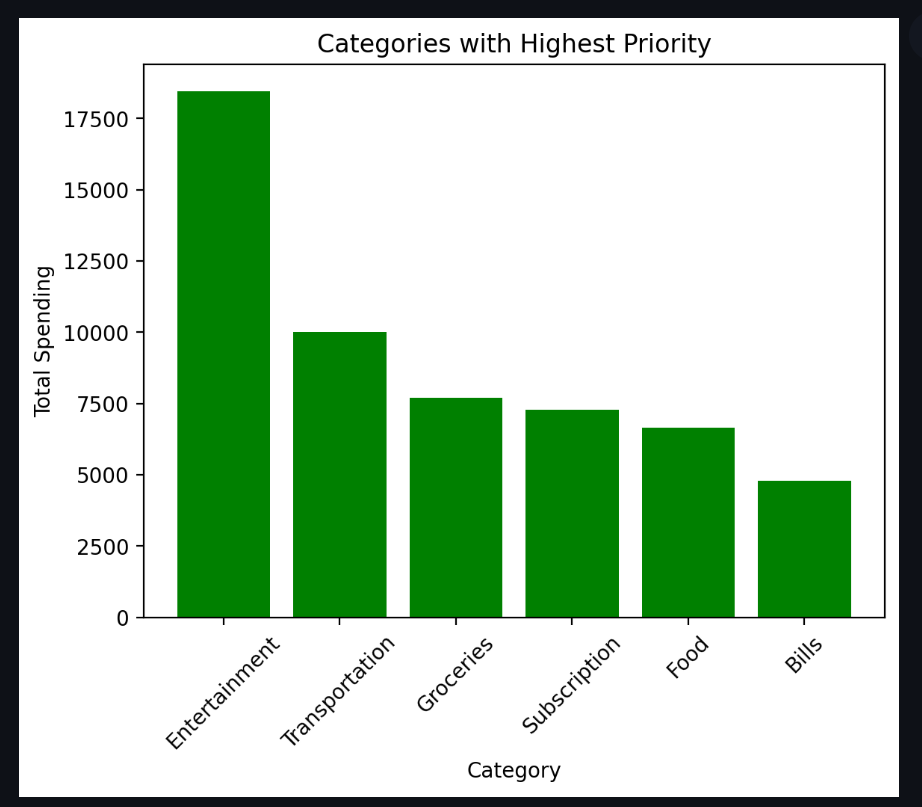
✅ \*\*Payment Mode Distribution\*\* (Pie Chart)

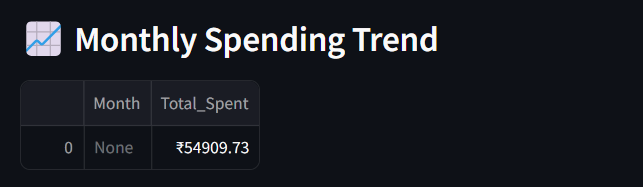


✅ \*\*Top 5 Expensive Categories\*\* (Line Chart)





✅ \*\*Monthly Spending Trend\*\* (Line Chart) 

✅ \*\*Categories with Highest Priority\*\* (Bar Chart)

## Conclusion - What We Achieved

✔ \*\*Generated fake data\*\* using Python Faker  
✔ \*\*Stored & queried data\*\* using MySQL  
✔ \*\*Visualized insights\*\* with Streamlit & Matplotlib  
✔ \*\*Identified spending patterns\*\* for analysis  
  
📌 \*This project is a complete workflow from data generation to insightful visualization!\*

## Thank You!

✨ Created by Rohit Kaushal ✨  
Feel free to ask any questions!