

# **Project Title: Smart Expense Tracker using Python**

## **Project Overview**

This project is a Python-based expense tracker designed to record daily expenses, store data permanently in a CSV file, analyze spending patterns, and visualize category-wise expenses using bar charts.

## **Problem Statement**

Managing daily expenses manually is time-consuming and error-prone. This project helps users track expenses digitally and understand spending behavior through analysis and visualization.

## **Tools and Technologies Used**

Python, Pandas, Matplotlib, CSV File Handling

## **Key Features**

- Add daily expenses
- Automatic CSV file creation
- Permanent data storage
- Category-wise expense summary
- Bar chart visualization

## **Working of the Project**

The user enters expense details such as category and amount. The data is saved in a CSV file. Pandas is used to read and analyze the data, and matplotlib generates bar charts to visualize expenses.

## **Learning Outcomes**

This project improved my understanding of Python programming, file handling, data analysis using pandas, and data visualization using matplotlib.

## **Future Enhancements**

Monthly expense reports, budget alerts, expense update and deletion features.