# Smart Expense Tracker using Django

## Project Description

The Smart Expense Tracker is a lightweight, yet powerful web application built using Django that helps users monitor their daily, weekly, and monthly expenses in a smart and organized way. With the increasing need for personal financial management, this tool enables users to gain insights into their spending habits, categorize transactions, and visualize financial data through simple, clean dashboards.

The tracker supports user authentication, expense logging, category prediction using keyword matching, and allows users to edit or delete their entries. The platform ensures data privacy for each user by isolating their data through Django's authentication system. The aim of the project is to offer a simplified and smart approach to personal budgeting and financial awareness.

## Tools and Technologies used:

***Frontend:***
HTML5 and CSS3 are used for structuring and styling web pages, while Bootstrap ensures a responsive and clean user interface.

**Backend**:
The project is built using Python 3.x with the Django framework, which provides powerful tools for rapid web development, form handling, routing, and templating.

**Database:**
SQLite, Django's default database, is used to store user data and expense records. It's ideal for small-scale projects and development environments.

**Authentication:**
User login and signup are handled using Django's built-in authentication system, ensuring secure access and user-specific data isolation.

**Visualization:**
Chart.js (or optionally Django Plotly Dash) is used to render dynamic graphs and charts to visualize expense categories and trends.

## Features:

### 1. User Authentication

Secure login, signup, and logout features using Django's built-in User model.

Each user's data is isolated — only authenticated users can view and manage their own expenses.

**2. Add Expenses**

Users can log expenses with a description, amount, date, and optional notes.

Each entry is stored in the database and associated with the logged-in user.

**3. Smart Category Prediction**

Based on keywords in the description (e.g., “uber” → Travel, “pizza” → Food), the app predicts the category of the expense.

This prediction uses simple logic with a dictionary of common keywords, allowing easy future enhancement using NLP libraries.

**4. Date-wise Filtering**

Users can view their expenses filtered by:

Today

This Week

This Month

Helps in analyzing short-term and long-term spending.

**5. Edit/Delete Expenses**

Users can edit their existing entries to correct mistakes or update values.

Users can also delete entries that are no longer needed.

Both operations ensure the database remains clean and up-to-date.

Editing pre-fills the form with the original data to make updates easier.

**6. Expense Visualization**

Simple bar charts or pie charts to show:

Category-wise spending

Total expenses over time

Gives users a visual overview of their financial behavior.

## Additional feature:

The Download Report feature allows users to export their expense records into a CSV or PDF file format for offline access, review, or printing. This feature is particularly useful for users who want to maintain a local copy of their financial data or share it with others (e.g., for budgeting or tax purposes).

## Reference:

https://www.youtube.com/watch?v=8yg8laBzKsg