BudgetApp

App Requirements

The various Minimum Viable Product features includes the following:

**User Management Includes:**

* *Signup***:**
  + Users can create an account with email + password.
  + Passwords stored securely (hashed, not plain text).
* *Login***:**
  + Users log in with email + password.
  + System returns a secure token (JWT) to keep them logged in.

**Transactions**

* *Add income/expense:*
  + Users enter: amount, type (income/expense), category, date, and optional note.
* *View transactions:*
  + Users see a list of their past income/expenses.
  + Transactions should be linked to the user account (each user sees only their own data).

**Categories**

* Foods & Drinks :

1. Fast Food
2. Restaurant, fast-food
3. Groceries

* Shopping:

The following are the categories involved :-

1. Drug-store, chemist
2. Free time
3. Stationery, tools
4. Gifts, joy
5. Electronics, accessories
6. Pets, animals
7. Home, garden
8. Toilertries
9. Kitchen
10. Kids
11. Health and beauty
12. Jewels, accessories
13. Men's
14. Fragrances
15. Footwear
16. Clothes
17. Housing
18. Energy nd Utilities
19. Transport
20. Vehicle
21. Life & Entertainment
22. TV, Streaming
23. Activeness sport nd fitness
24. Holiday nd trips
25. Communication and PC
26. Internet
27. Airtime
28. Bundles
29. Financial Expenses
30. Charges & fees
31. Loans & intrests
32. Investments
33. Trade
34. MMF
35. Savings
36. Income
37. Others

***Assign category:*** Every transaction must belong to one category.

**Monthly Summary**

* **Auto-summary:**
  + Show total income, total expenses, and balance for the month.
  + Breakdown by category (e.g., Food = 25% of expenses).

**Export Data**

* **CSV export:** Users can download their transaction history as a spreadsheet.
* **PDF export:** Optionally generate a simple PDF report of the monthly summary.

Tools

* **Python** (for backend with Flask or FastAPI)

Download: [python.org](https://www.python.org/downloads/)

* **Flutter SDK** (for frontend mobile app)

Download: flutter.dev

* **VS Code** (recommended editor for both Python + Flutter)

Extensions: Flutter, Python

* Android Studio
* **Git & GitHub account** (for version control)

Install Git: [git-scm.com](https://git-scm.com/downloads)

* **Postman** (for testing APIs easily).

Project Structure

**budget\_app\_backend/**

│── venv/ # Python virtual environment

│── app.py # Main Flask entry point

│── models.py # Database models (User, Transaction, Category)

│── routes.py # API routes (signup, login, transactions)

│── database.py # DB setup (SQLAlchemy)

│── requirements.txt # Python dependencies

│── README.md # Documentation for backend

**budget\_app\_frontend/**

│── lib/

│ ├── main.dart # Entry point

│ ├── pages/

│ │ ├── login\_page.dart # Login UI

│ │ ├── signup\_page.dart # Signup UI

│ │ ├── dashboard\_page.dart # Transaction list

│ │ └── add\_txn\_page.dart # Add income/expense

│ ├── services/

│ │ └── api\_service.dart # Connects Flutter to Flask API

│ ├── models/

│ │ └── transaction.dart # Transaction data model

│ └── state/

│ └── app\_state.dart # State management (Riverpod/Provider)

│── pubspec.yaml # Flutter dependencies

│── README.md # Documentation for frontend