Expense Tracker Web Application Documentation

- ❖ Expense tracker web help users manage their personal finances by tracking income and expenses.
- ❖ It is designed for small business owners, freelancers, employees who submit expense reports to their employers, and everyone else who wishes to better understand their spending habits.

Tech Stack

- Frontend: -for frontend we USE HTML, CSS and JAVASCRIPT
- For charts: -Chart.js
- For Authentication: -we used Flask-bcrypt
- For Database: -SQLite with Sqalchemy orm
- For backend: -we use python framework flask

Core Features

1, user authentication

- it has signup and login system which user can manage their account
- the password hashing using bcrypt
- And also, session management

2. Dashboard

- In dashboard we can see our total income and expenses
- Its analysis our weekly financial trends visualization
- We can see our income vs expense in pie chart
- And we have additional feature like dark and light mode

3. Expense Management
   - In this we add and track expenses by category
   - We even get expense history table

4, income management
   - record income sources
   - income history tracing
   - data-wise income logging

5. Data Visualization
   - bar charts for weekly income/expense comparison
   - line chart for overall balance trends'
   - pie charts for expanse and income distribution

Frontend Structure

Html organization

- Home.html: -welcome animation,
  -Login/signup buttons
  -Background image
  -Responsive design elements
- Login.html: -username input
  -Password input
  -Submit button
  -Signup link

  -Flash messages

- Signup.html: -Full name input
  -Username input
  -Password Input
  -Confirm Password
  -Submit Button
  - Login Link
  - Validation Messages
- Dashboard.html: -Top Stats Section
  - Right Sidebar
  -Overall, Balance
  - Total Income
  - Total Expenses
  - Charts Section
  - Weekly Overview Chart
  - Income vs Expense Pie Chart
  - Balance Trend Line Chat
  -User Profile
  - Dark Mode Toggle
  - Additional Stats

- Expense.html: - Input Form Section
  - Category Dropdown/Input
  - Type Input
  - Amount Input
  - Date Picker
  - Submit Button

- Expense History Table

- Table Headers

- Dynamic Rows

- Income.html: - Input Form Section

-Reason Input

- Amount Input

- Date Picker

- Submit Button

- Income History Table

- Table Headers

- Dynamic Rows

- Overview.html: - Charts Section

- Expense Distribution Pie Chart

- Income Distribution Pie Chart

- Summary Statistics

- Date Range Selector

CSS organization

- dashstyle.CSS: -dashboard styling and lay out
- style.CSS: -used to style the home page
- styleapp.CSS: application forms and components

- styleloginsign.CSS: authentication page styling

JavaScript Components

- Charts.js: -chart configuration and data visualization
- Index.js: - Ui interaction and dark mode
- Orders.js: -is a utility JavaScript file that handles data table management and interaction features in the Expense Tracker application. It provides functionality for sorting, filtering, and managing tabular data across expense and income pages.

Database Structure

1, User Model

```
class User(db.Model):
  id = db.Column(db.Integer, primary_key=True)
  full_name = db.Column(db.String(100))
  username = db.Column(db.String(100), unique=True)
  password = db. Column(db.String(200))
```

2, Expense Model

```
class Expense(db.Model):
  id = db.Column(db.Integer, primary_key=True)
  category = db.Column(db.String(100))
  type = db.Column(db.String(100))
  amount = db.Column(db.Float)
  date = db.Column(db.DateTime)
  user_id = db.Column(db.Integer, ForeignKey('user.id'))
```

3, Income Model

```
class Income(db.Model):
  id = db.Column(db.Integer, primary_key=True)
  reason = db.Column(db.String(100))
  amount = db.Column(db.Float)
  date = db.Column(db.DateTime)
  user_id = db.Column(db.Integer, ForeignKey('user.id'))
```

Security Features

1, Password hashing using bcrypt

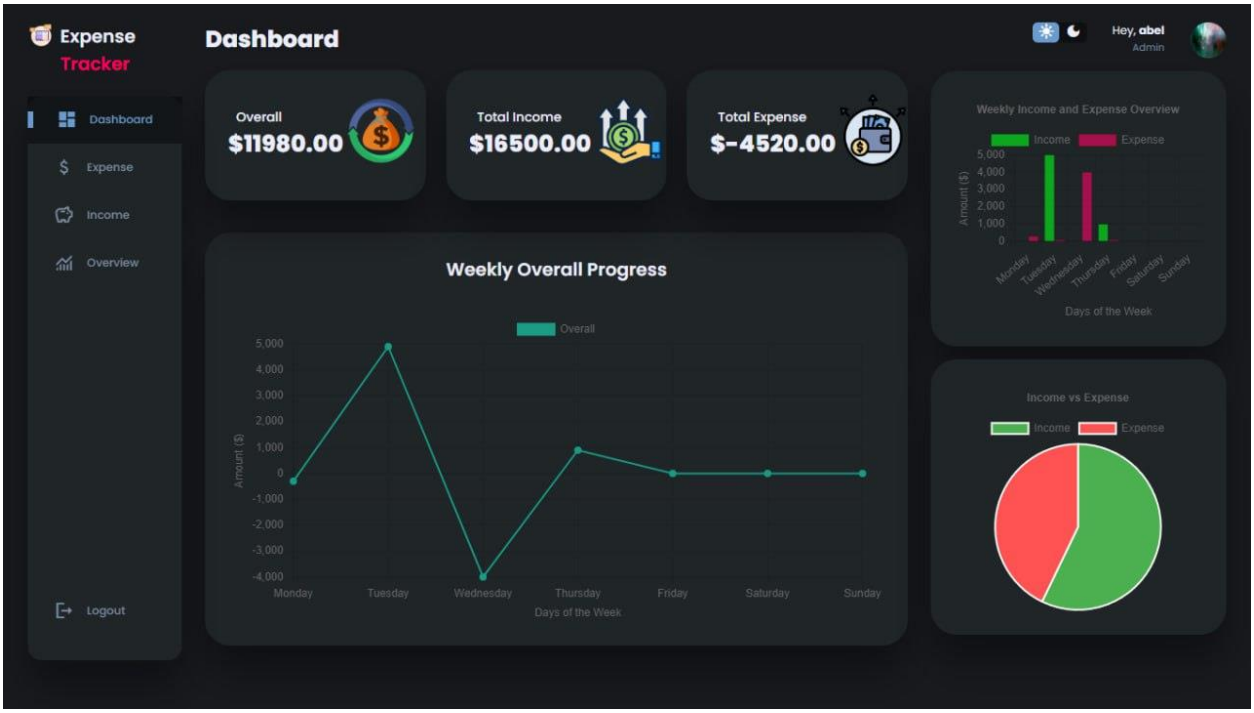
2, Session management

3, Csrf protection

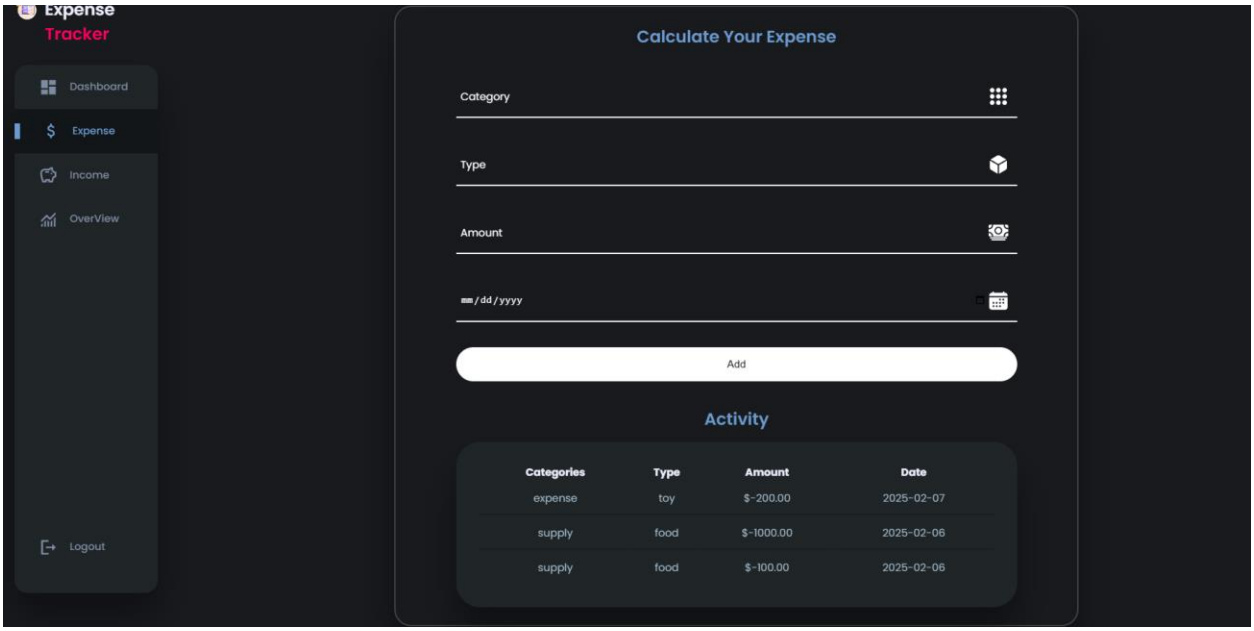
4, Secure cookie configuration

5, Input validation

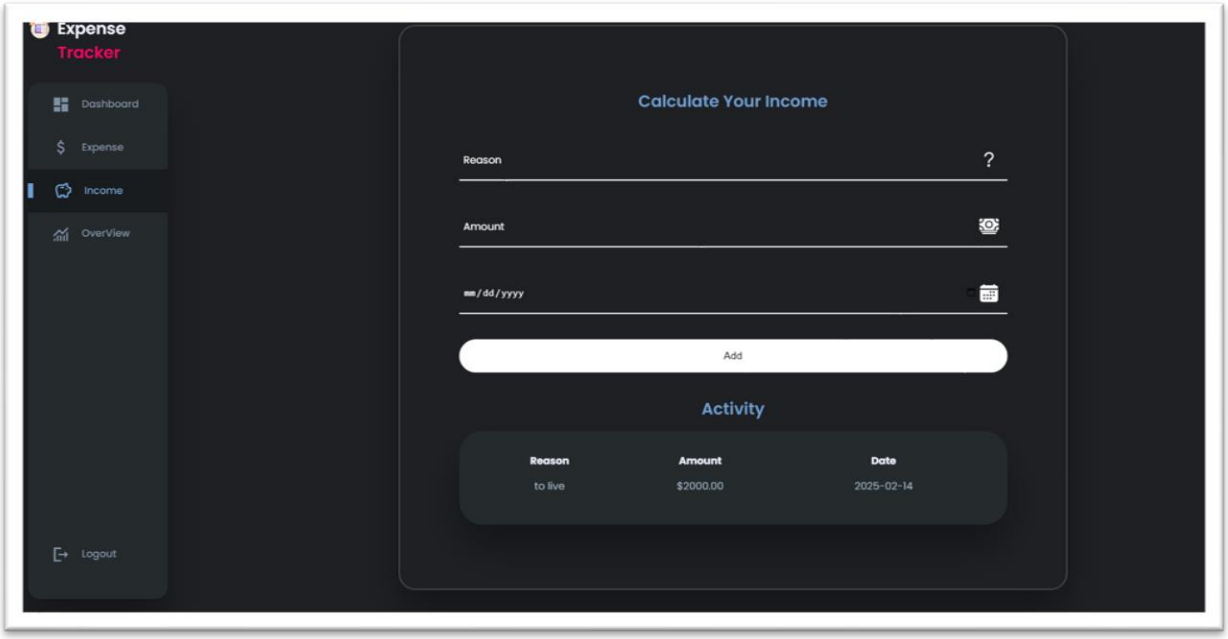
User guide



- In the dashboard we can see our overall income and expense
- Additionally, we can see it in graph and we can make dark and light mode.



- In expense we can add category, type, amount, date and used to record and manage our expenses.



- In income we put our income amount (how much we get), reasons (like it can be where we get our money from) and date.

- In overview we can our income and expense in pie chart we make more attractive and cleaner.