**Smart Expense Tracker & Analyzer**

**Agile Web - Group Project**

## **Purpose:**

A web application that allows users to log expenses, visualize spending trends, and selectively share summaries with other users (e.g. housemates, friends, financial advisors).

**Main Views**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Pages / Views | Purpose | Note |
| 1. | Home | Intro + Login/Sign Up | Landing Page |
| 2. | Dashboard | Quick high-level overview: total spend, avg, top category, etc. Charts | Logged-in only |
| 3. | Records | Table of historical records + Add/modify expenses | Logged-in only |
| 4. | Share | Share filtered views or summaries | Logged-in only |
| 5. | Profile / Settings | Update account info | Optional |
| 6. | Logout | Ends session and redirects to Home | Navigation bar item? |

Shall we merge Dashboard and Insights into single Insights page? YES

**Templates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Template File | Description | User Inputs | Output | Method | Note |
| home.html | Landing page with welcome message and login/signup options | None | Intro text  Navigation buttons | GET | Links to login.html  signup.html |
| login.html | Login form | Username  Password | Success: redirect to dashboard  /failure message | GET/ POST | Links to  signup.html  forgot\_password.html (at bottom of form) |
| signup.html | New user registration form  (warning if user name is already taken) | Email  Username  Password  Confirm Password | Account created message  redirect or login prompt | GET/ POST | Links to  login.html  forgot\_password.html (at bottom) |
| forgot\_password.html | Allows users to request a password reset by entering their registered email address | Email | - Success message (e.g., "Reset link sent")  - Error message (e.g., "Email not found") | GET/ POST | Links to  login.html  signup.html |
| dashboard.html | Main overview page with high-level summary stats | None (data fetched from db) | Total spend  average spend  top categories  recent entries  Pie charts  Bar charts  Line charts  Filtered table Category stats | GET |  |
| add\_inputs.html  (add new data) | Add monthly earnings  Form to add new expense entries  Category (control the number of category) | Amount  Date  Category (control the number of category) (dropdown) | Most recent entries | GET / POST |  |
| records.html | Table | Filters: Category, Date range, | Table | GET |  |
| share.html | Share specific data with selected users | Filter options (same as Insights)  Select user(s) or input email(s)? | Confirmation of shared report | GET / POST |  |
| shared\_with\_me.html | View summaries shared by other users |  | List of shared views  read-only visualizations | GET |  |
| settings.html | Update user profile or password | New name  Email  Password  confirm password | Success / Error message | GET / POST |  |
| Logout.html (optional) | Session end page or simple route handler (no template needed if redirecting to home) | None | Successful logout message /  Redirect to home.html | GET |  |
| 404.html | Custom error page if user lands on a bad route | None | Message like “Page not found” or navigation buttons |  |  |

**Navigation Items (for Logged-in Users)**

|  |  |
| --- | --- |
| **Item** | **Link to** |
| Dashboard | /dashboard |
| Add Expense | /add\_expense |
| Insights | /insights |
| Share | /share |
| Shared with Me | /shared\_with\_me |
| Settings / Profile | /settings |
| Logout | /logout |

**Navigation Items (for Not Logged-in Users)**

|  |  |
| --- | --- |
| **Item** | **Link to** |
| Home | / |
| Login | /login |
| Sign Up | /signup |
| Forgot Password (optional) | /forgot-password |

## **Core Features & Tasks**

Grouped by views/templates.

### **1. Home + Auth (Login/Signup/Forgot Password)**

* Design landing page with welcome message
* Implement login functionality with session handling
* Implement user registration with validations
* Add forgot password flow (email-based)
* Link navigation for unauthenticated users

### **2. Dashboard**

* Fetch summary data (total, average, top categories)
* Display recent expenses
* Show simple highlights (cards or quick stats)
* UI should be clean and glanceable

A card about this month average spendings (this month total spending/ days)

Dashboard: (all charts on the dashboards)

* Earnings (mostly stable, only show the tag value like the template)
* Chart overview of expense (line graph, monthly, daily basis)
* Warning status of the expense: over, normal (spend >50%, 90% earnings give warnings)
* Percentage of Every category spending over the month (pie chart of the right hand side)
* Bar chart of Every category spending over the month (MUST)

History records (only the table with history records)

* Filter/ update / One table of every expense/transaction (category (food,transportation,..), date, amount)
* (~~Optional) Recommendation: over expense in some category/ total, give some useful links~~
* (Optional) Change the projects content to a debt tracker like this:

A screenshot of a credit card

AI-generated content may be incorrect.

### **3. Add Expense**

* Form with category dropdown, amount, date
* Submit data via POST to database
* Display confirmation and recent entries

### **4. Insights (Visualizations)**

* Filter form: category, date range, min/max
* Generate:  
  + Pie chart: Expense by Category
  + Bar chart: Monthly Expenses
  + (Optional) Line chart: Expense trend
* Show filtered data table
* Use AJAX to update visualizations without full page reload

### **5. Download (Generate reports)**

* Download the data range
* Download the insights/ generic report (PDF)

### 6. **Shared (Later)**

### "share data" view, allowing the users to selectively share their data with other specific users.

(send the report to a email) (need really link gmail??)

### **7. Profile / Settings**

* Allow name/email/password update
* Add validation
* Confirmation of update

### **8. Logout**

* Clear session and redirect to home

### **9. 404 + Error Handling**

* Custom 404 page
* Display friendly error messages for failed logins, invalid inputs, etc.

**SUPPLEMENT IDEAS + THINGS TO DO:**

Instruction top dashboard: (page)

Dashboard + Insights

|  |  |
| --- | --- |
| Earnings (monthly) (small edit button)  40k | Expense (average for this month) (small edit button)  Auto calculate |

Summary table:(Insights): (Modify data by table)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Date | Category | Amount |  |  |  |  |
| 15/4/2025 | Food | 100 | 80 |  |  |  |
| 16/4/2025 | Food | 50 |  |  |  |  |

Leave only “Profile” for modify username, email, passwords, title, phone, update profile pictures,.

Change the logos

Delete login with gg, facebook

pop-up for new users (optional) OR FOR new users, when log in goes directly to Profile (categorize with new and old user)

Hello new users, please update your profile and your data here

Warning if username is duplicated: (under the login)

Share users data and create email**, do we need to link to real gmail?**

**Every Wednesday 3pm**

**Dividing the tasks:**

1. Front -end (insight & dashboard is 1 page?)

Dashboard & Record pages: Maneesha + Umma

Login, sign up: Trung

profile: Nafisa

2: Back-end: Trung & Nafisa

Establish data

Connect data

1 person: login/ user data

1 person: expense data