HOLY ANGEL UNIVERSITY

Budget Planner

An WCSERVER Project
Presented to The Faculty of the
School of Computing

In Partial Fulfillment
of the Requirements for the Course
Advanced Dynamic Web Applications (6ADWEB)

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Introduction

In an era where financial stability is increasingly pivotal, the need for effective budget management cannot be overstated. It serves not only as a means to streamline day-to-day financial operations but also as a crucial strategy for long-term financial security. Our innovative budget planner website, leveraging the power of Angular 17, is crafted to support individuals and families in these endeavors. This advanced tool offers an all-encompassing platform that allows users to meticulously track their spending, control their monthly budgets, and strategically plan their savings. By incorporating the latest technological advancements, we ensure that the process of financial planning is both seamless and straightforward, making it accessible to a broad audience, regardless of their technical expertise or financial background.

Problems/Issues

Despite the robust functionality provided by the latest technological developments, several issues have surfaced that may hinder the overall effectiveness and satisfaction associated with our budget planner:

1. **Complex Navigation**: A number of users have reported challenges with navigating through the website's interface. The main concern lies in locating specific functionalities, which can be cumbersome and non-intuitive, leading to a frustrating user experience.
2. **Performance Bottlenecks:** With the growing popularity of our tool, the influx of simultaneous users, especially during peak times, has exposed limitations in handling heavy loads. This has manifested in slower than acceptable response times and occasional delays in processing financial data, impacting the real-time usability of our service.
3. **Mobile Functionality Gaps:** While our website is designed to be compatible with mobile devices, disparities in performance and functionality between the desktop and mobile versions have been noted. These differences lead to a compromised experience on mobile platforms, which is especially problematic given the increasing reliance on smartphones for managing personal finances.
4. **Security and Privacy Concerns:** As the sensitivity of managing financial information online continues to escalate, so do the concerns regarding the security measures we currently employ. Users have raised issues particularly around the areas of data encryption and the overall protection of their personal and financial details.

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Objectives

In response to the challenges identified, we are committed to undertaking several key initiatives aimed at enhancing the overall utility and security of our budget planner website:

1. **Streamline User Interface:** Redesign the user interface for easier navigation, ensuring that key features are easily accessible and understandable for all users, regardless of their tech proficiency.
2. **Optimize Performance:** Implement advanced caching techniques, optimize database queries, and possibly upgrade server hardware to handle larger loads more efficiently.
3. **Enhance Mobile Experience:** Ensure that the mobile version of the website mirrors the desktop version in functionality, with optimizations for speed and user interface on smaller screens.
4. **Upgrade Security Measures**: Enhance data encryption protocols, conduct regular security audits, and implement strict access controls and authentication measures to protect user data.

Flowchart

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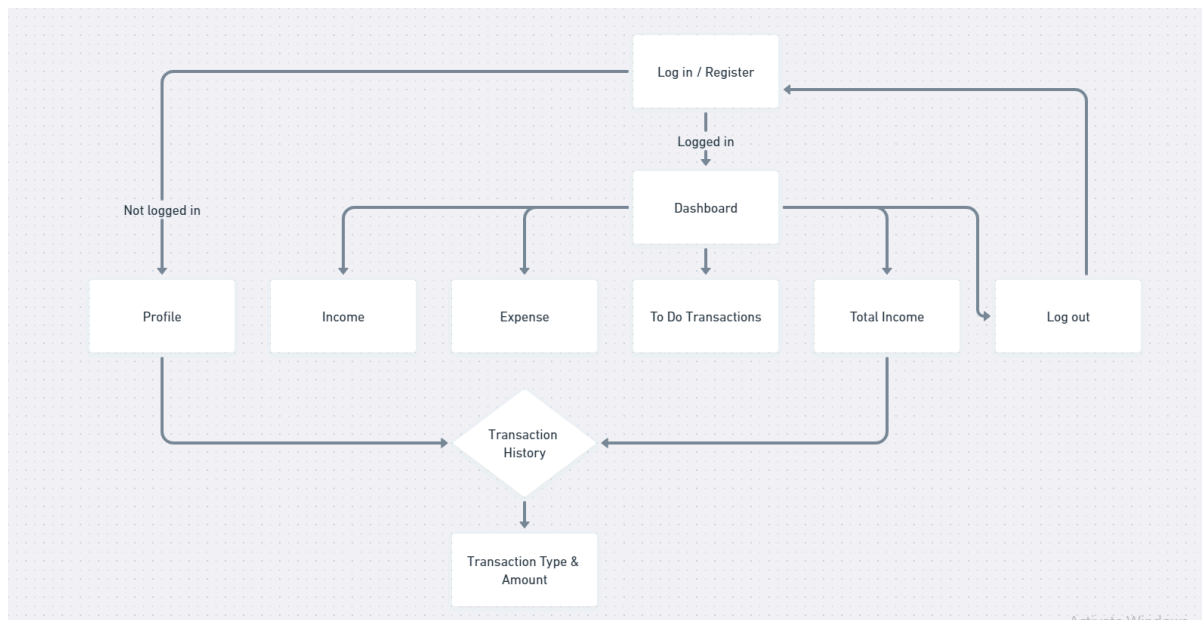
II. Application Design

Application Mockup Proposal
1. Login and Register
- Login: Existing users enter their username and password to access their accounts. If the login credentials are verified, they are directed to the dashboard.
- Register: New users can create an account by providing essential details such as email, a secure password, and additional personal information. Upon successful registration, users are automatically logged in and redirected to the dashboard.

2. Dashboard
The dashboard is the central hub where users can manage their financial activities. It consists of the following sections:
- Income: This section allows users to enter details about their income sources. Users can add multiple income entries, each categorized appropriately (e.g., salary, insurance, business).
- Expense: Here, users can record various expenses, categorizing them by type (e.g., groceries, house bills, entertainment). This helps in tracking and managing outflows effectively.
- To-Do Transactions: This area is designed to remind users of upcoming financial obligations or pending transactions that need to be completed, helping in better financial planning and avoidance of late payments.
- Total Income: This automatically calculated field provides a quick overview of the total income registered for the current period, enabling users to have a snapshot of their financial inflow.

3. Profile
- In the profile section, users can view and edit their personal information to keep the account updated. The fields include:
    - Name
    - Age
    - Date of Birth
    - Gender
    - Email
    - Occupation
    - Contact
    - Address
- Maintaining accurate profile information is crucial for personalization of the budgeting tool and for receiving insights tailored to the user's financial needs.

4. Transaction History
- This section provides a detailed log of all past financial transactions:

- - Transaction Type: Indicates whether the entry is an income or an expense.
  - Amount: The monetary value of the transaction.
- Users can review their past financial activities here, aiding in financial audits, and tracking spending patterns over time.

5. Logout
- Once users decide to end their session, they can log out of the application:
  - Logout Process: Clicking the logout button securely ends the user session.
  - Redirect: After logging out, users are redirected to the login page, preventing unauthorized access and ensuring that personal financial data remains secure.

Project Plan and Schedule

Phase 1: Requirements Gathering
- **Duration: 1 week (March 21 - March 27, 2024)**
- **Key Activities:**
  - Collecting input through quick surveys from current users and discussions with barbershop staff to pinpoint critical needs.
  - Establishing a clear and concise list of essential features and system specifications based on feedback.

Phase 2: Design and Prototyping
- **Duration: 1 week (March 28 - April 3, 2024)**
- **Key Activities:**
  - Creating basic wireframes for each screen to visualize the structural layout.
  - Designing a simple style guide, focusing on a user-friendly interface, while addressing accessibility concerns.
  - Developing clickable prototypes to model the interaction flow and key functionalities.

Phase 3: Development and Initial Testing
- **Duration: 2 weeks (April 4 - April 17, 2024)**
- **Key Activities:**
  - Configuring the development environment to support a collaborative coding approach.
  - Implementing the front-end and back-end elements of the application, including real-time data updates and the notification system.
  - Conducting continuous integration and unit testing to ensure functionality aligns with user requirements and to fix bugs promptly.

Phase 4: Final Testing and Revision
- **Duration: 4 days (April 18 - April 21, 2024)**
- **Key Activities:**

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- Performing comprehensive testing across different devices and browsers to ensure compatibility and responsiveness.
- Making necessary adjustments and optimizations based on test results to improve performance and user experience.
- Preparing the final presentation and ensuring the project documentation is complete and up to date.

Phase 5: Presentation Day
- **Date: April 22, 2024**
- **Key Activity:**
  - Demonstrating the functionality and features of the redesigned budget planner and evaluating feedback for any further adjustments.

IV. Meetings Documentation