

General Guidelines for Presentation

- Slides should not be too heavy with content. Better to create point wise.
- If you require more than one slide for any point, right click on that point slide then select duplicate slide and modify the duplicated slide.
- Diagrams must be aligned at centre and clearly visible with caption.
- All the mentioned fonts, font size, title content, etc should not change and strictly as per the given format and guidelines.



PARSHWANATH CHARITABLE TRUST'S

A.P. SHAH INSTITUTE OF TECHNOLOGY

Department of Computer Science and Engineering

Data Science



SmartSpend - Comprehensive Expense Tracking and Management Tool

Mrinmayi Badirke (23107018)

Harshal Gaikwad (23107052)

Subodh Wani (23107070)

Manas Chaudhari (23107074)

Project Guide
Prof. Dipali Gat

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1. Introduction

SmartSpend is a digital expense tracker app designed to help users record, categorize, and analyze their financial transactions efficiently.

Problem Identified :

- Lack of proper financial tracking leads to overspending and poor saving habits.
- Traditional methods (handwritten records, spreadsheets) are time-consuming and error-prone.

Solution Proposed :

- Develop a digital expense tracker app for easy financial management.
- Implement budget-setting features to help users control spending.

2. Objectives

1. To provide users with an efficient financial management system that aids in budgeting and expense tracking.
2. To enable users to categorize their expenses, set budgets and analyze their spending patterns for better financial tracking.
3. To design a user-friendly and intuitive interface using Tkinter, enhancing accessibility and ease of use.
4. To offer meaningful financial insights through data visualization through charts, developed using matplotlib library and generating reports.

3. Scope

1. Can be applied in personal finance management to help individuals track income, expenses, and savings efficiently.
2. Can be implemented in educational institutions to teach financial literacy and budgeting skills.
3. Can be extended for use in small businesses to monitor expenditures and manage budgets effectively.
4. Can integrate with banking and digital payment systems in future updates for automated transaction tracking.
5. Can be expanded to support multiple users for shared financial management within families or teams.

4. Features

- 1. Transaction Recording:** Users can manually input income and expenses, ensuring detailed financial tracking.
- 2. Expense Categorization:** Expenses will be sorted into categories like food, transport, and utilities for better spending analysis.
- 3. Budget Management:** Users can set spending limits for categories and receive alerts when nearing their budget.
- 4. Data Visualization:** Graphs and charts will provide insights into spending trends for better financial decisions.
- 5. Secure Data Storage:** Financial data will be stored securely in a MySQL database for reliability and protection.

5. Outcome of Project

1. User can enter income and expenses manually to track financial transactions.
2. User can categorize expenses into predefined sections like food, transport, and utilities.
3. User can set a budget for different categories and receive alerts when nearing the limit.
4. User can view spending trends through graphs and charts for better financial analysis.
5. User can edit or delete transactions to keep records updated.

6. Technology Stack

1. **Frontend:** Developed using Tkinter (Python) to create a user-friendly and interactive graphical interface.
2. **Backend:** MySQL database will be used to store, retrieve, and manage financial transaction data efficiently.

7. Block Diagram

Workflow:

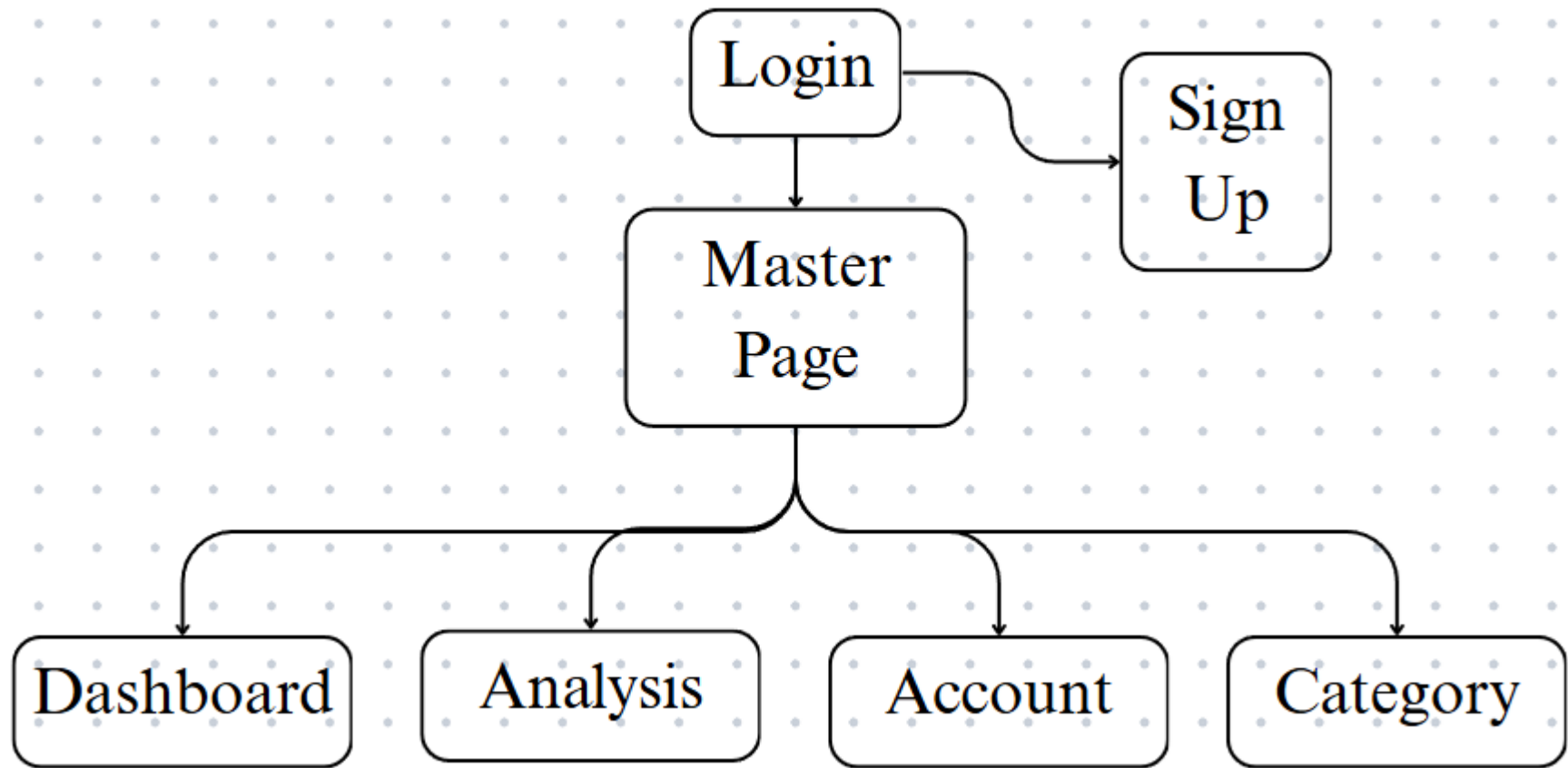


Figure 7.1.: block Diagram

7. Block Diagram

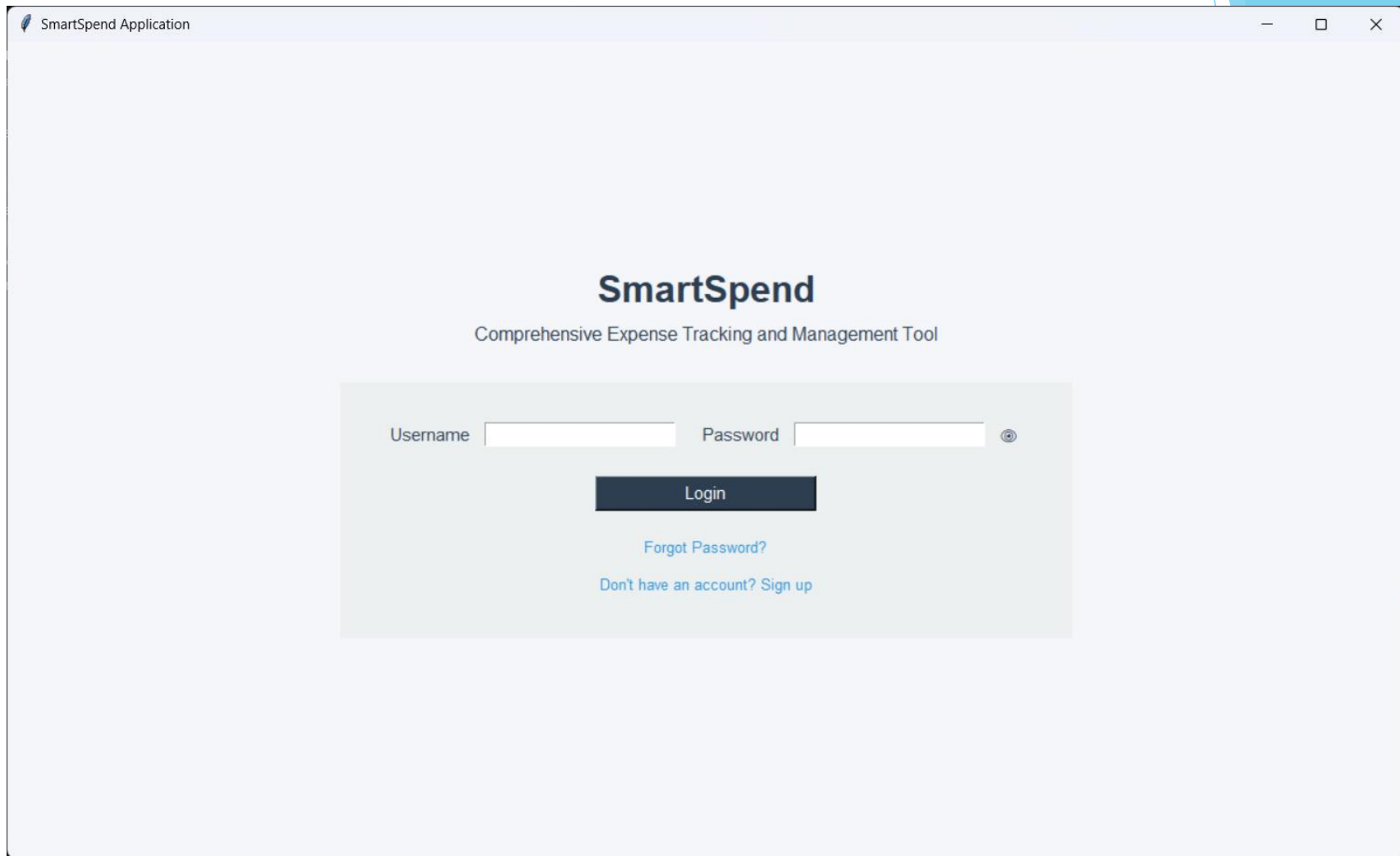
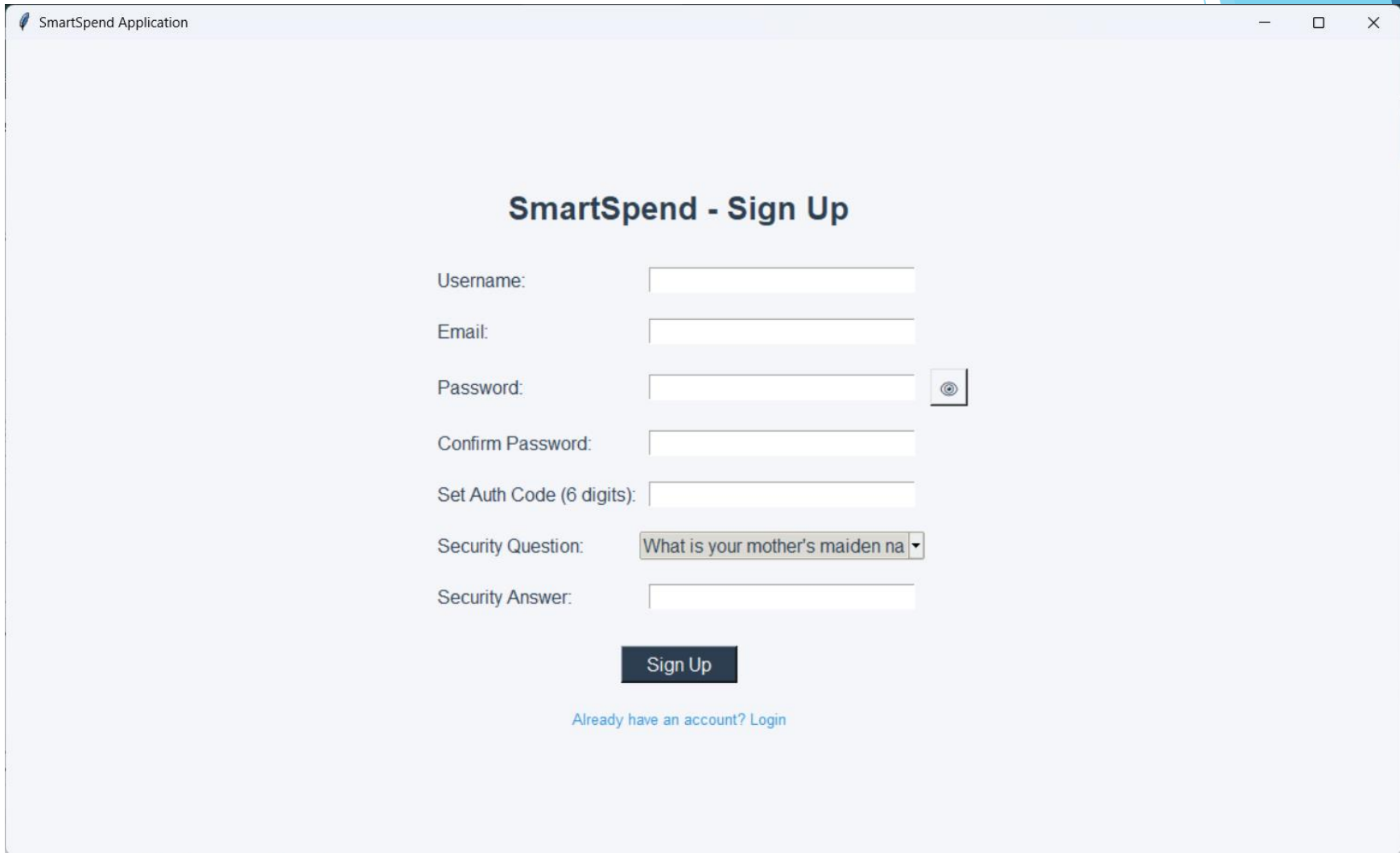


Figure 7.2.: Login page

7. Block Diagram




SmartSpend Application

SmartSpend - Sign Up

Username:

Email:

Password: 

Confirm Password:

Set Auth Code (6 digits):

Security Question:

Security Answer:

[Sign Up](#)

[Already have an account? Login](#)

Figure 7.3.: Sign up page

7. Block Diagram

The screenshot shows the SmartSpend Application dashboard. At the top, there's a header with the application name and a user welcome message. Below this is a navigation bar with tabs for Dashboard, Analysis, Account Info, and Category. The main content area is divided into three sections: 'Add New Transaction' with input fields for Amount, Type (set to Expense), Category, and Description, plus an 'Add Transaction' button; 'Financial Summary' with three colored boxes showing Total Income (\$0.00), Total Expenses (\$0.00), and Current Balance (\$0.00); and 'Transaction History' which includes a table with columns for Id, Date, Type, Category, Amount, and Description, and buttons for 'Export to PDF' and 'Delete Selected'.

SmartSpend Application

Welcome, manas [Logout](#)

DASHBOARD ANALYSIS ACCOUNT INFO CATEGORY

Add New Transaction

Amount: Type: Expense Category:

Description: [Add Transaction](#)

Financial Summary

Total Income
\$0.00

Total Expenses
\$0.00

Current Balance
\$0.00

Transaction History

Id	Date	Type	Category	Amount	Description
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[Export to PDF](#) [Delete Selected](#)

Figure 7.4.: Dashboard page

7. Block Diagram

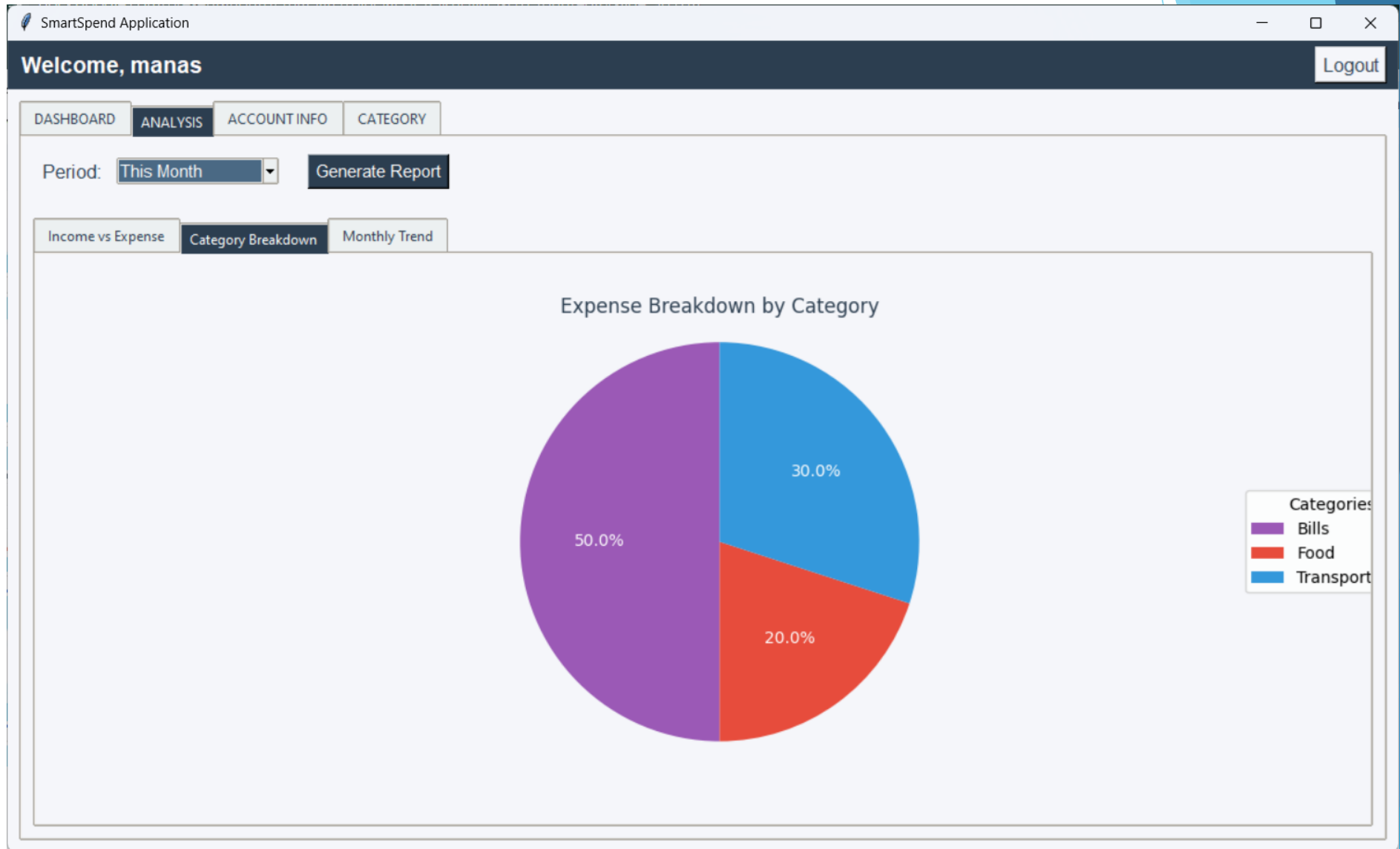
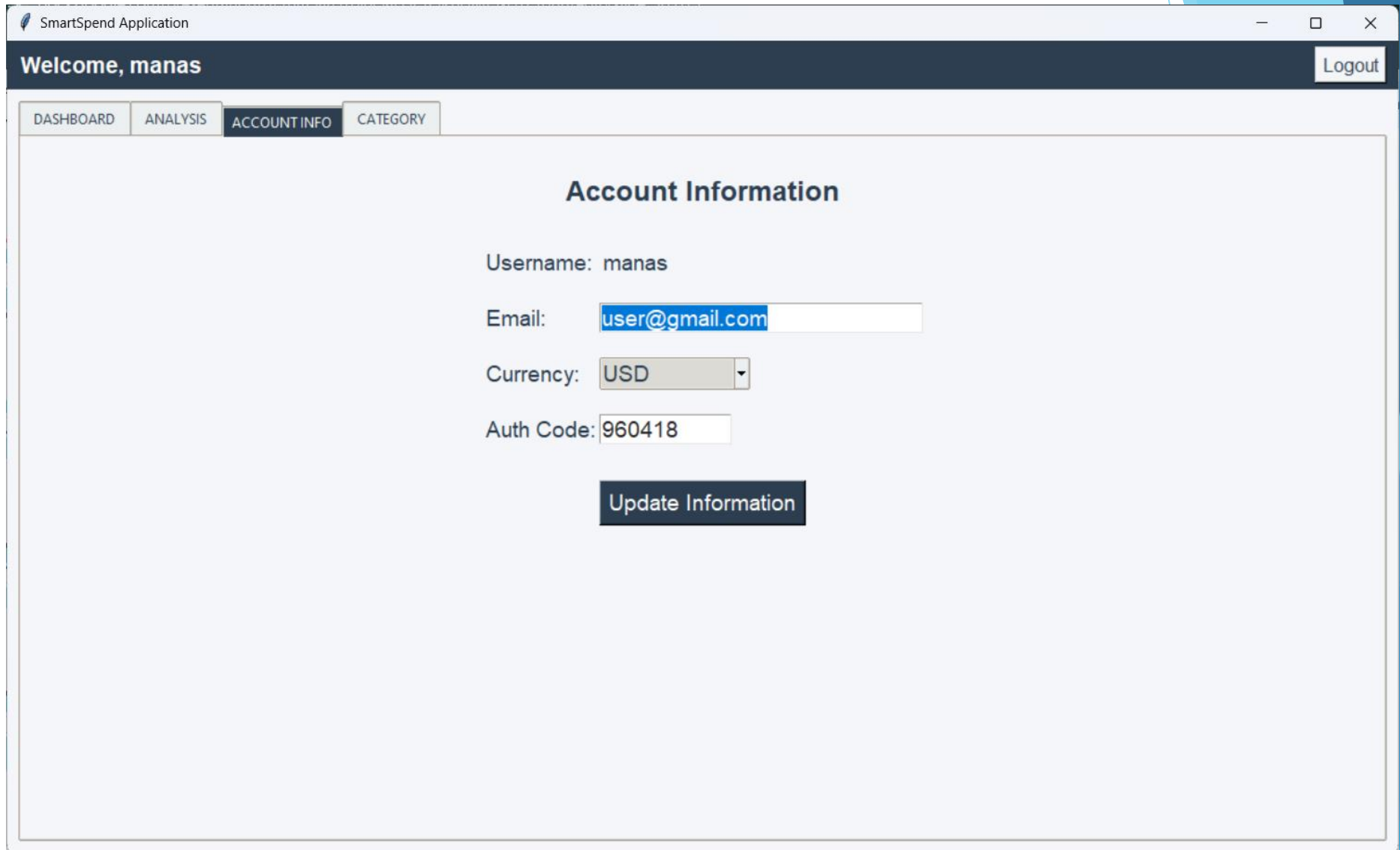


Figure 7.5.: Analytics page

7. Block Diagram



The screenshot shows a web application window titled "SmartSpend Application". The header bar is dark blue with the text "Welcome, manas" on the left and a "Logout" button on the right. Below the header is a navigation bar with four tabs: "DASHBOARD", "ANALYSIS", "ACCOUNT INFO" (which is active and highlighted in dark blue), and "CATEGORY". The main content area is light gray and titled "Account Information". It contains the following fields:

- Username: manas
- Email:
- Currency:
- Auth Code:

Below these fields is a dark blue button labeled "Update Information".

Figure 7.6.: Account's page

7. Block Diagram

SmartSpend Application

Welcome, manas

Logout

DASHBOARD

ANALYSIS

ACCOUNT INFO

CATEGORY

Add New Category

Category Name:

Category Color:

Select Color

Add Category

Your Categories

ID	Category Name	Color	Monthly Limit	Spent This Month	Remaining
1	Food	#e74c3c	No Limit	\$10000.00	N/A
2	Transportation	#3498db	No Limit	\$15000.00	N/A
3	Entertainment	#2ecc71	No Limit	\$0.00	N/A
4	Shopping	#f39c12	No Limit	\$0.00	N/A
5	Bills	#9b59b6	No Limit	\$25000.00	N/A
6	Salary	#1abc9c	No Limit	\$0.00	N/A

Set Monthly Limit

Delete Selected

Figure 7.7.: Categories page

Thank You...!!