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FinGen



Smart Finance Management Application

Your Personal Companion for Smarter Spending & Better Planning



Presented by

Team *₹*₹₹

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Your Smart Financial Companion

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Where Every Rupee Finds Its Purpose.

Problem Statement

People often lose track of their expenses and struggle with budgeting – leading to overspending and poor financial planning.

Objective

To develop a smart, user-friendly finance management application that lets users record, analyze, and monitor their income and expenses – ensuring better financial control and peace of mind.



- Tracks income & expenses in one place
- Identifies unnecessary spending
- Sets and monitors daily spending limits
- Provides insightful visual reports

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Project features *

◆ Feature	★ Description
⚡ Add / Update / Delete Transactions	Seamlessly record, edit, or remove income and expenses in real-time.
📅 Daily Spending Limit (Smart Auto-Adjust)	Set a daily limit; if exceeded, the extra amount is deducted from the next day's limit — keeping your budget balanced.
🔍 Transaction Tracking	Instantly view, search, and filter your transactions by date, category, or amount.
📁 Expense Categorization	Group expenses into categories like Food, Travel, Bills, Shopping, etc., for better clarity.
📊 Reports & Summaries	Generates easy-to-read visual reports and charts for category-wise analysis and monthly spending overview.
🗄️ Secure Data Storage (MySQL)	All user and transaction data safely stored in a structured MySQL database with instant retrieval.

★ Each feature was designed with simplicity, speed, and user experience in mind.

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Technologies Used



💡 *The power behind FINGEN's smooth, smart, and seamless performance.*

⚙️ Component	💡 Technology Used	🌐 Purpose
💻 Programming Language	Python	Core logic, backend processing, and integration of all modules
🌐 Framework	Flask (Web Framework)	Connects frontend ↔ backend ↔ database smoothly
🎨 Frontend Stack	HTML, CSS, JavaScript, Bootstrap	Builds an interactive, responsive, and modern-looking web interface
🗄️ Database	MySQL	Stores user profiles, transactions, limits, and reports securely
📊 Data Processing / Prediction Library	Scikit-Learn	Powers analytical & forecasting modules (expense trends)
💻 UI Type	Web Application	Accessible from any browser — desktop or mobile

Flow / Architecture

User → Flask Web App → MySQL Database →
Processing & Visualization → UI Display (Reports + Charts)

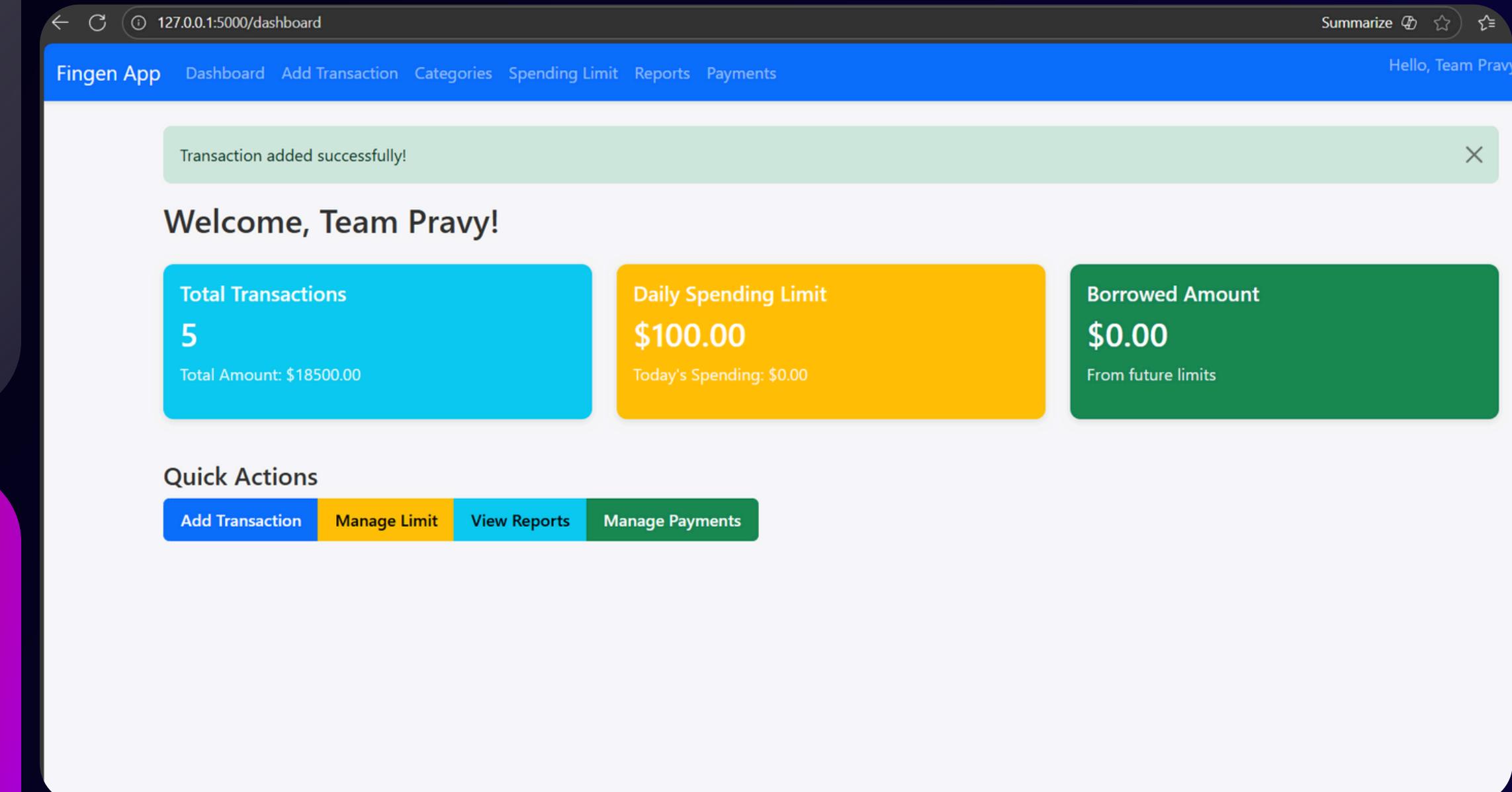
Modules Implemented

- User Module – Handles registration, login, and logout
- Transaction Module – Adds, edits, deletes income/expenses
- Category Module – Organizes expenses into types (food, travel, bills, etc.)
- Limit Module – Sets and tracks daily expenditure limits, auto-adjusts next day's limit
- Payment Module – Tracks payments automatically
- Report Module – Generates category-wise reports and charts



- Fully functional UI pages – login, dashboard, reports etc
- Flask backend connected with MySQL
- Successfully integrated all the modules
- Implemented daily limit logic
- Successfully running demo on localhost

 Link: <http://127.0.0.1:5000>



The screenshot shows the Fingen App dashboard at 127.0.0.1:5000/dashboard. The header includes links for Fingen App, Dashboard, Add Transaction, Categories, Spending Limit, Reports, and Payments, along with a 'Hello, Team Pravy!' greeting and a 'Summarize' button.

A green success message at the top left states "Transaction added successfully!". Below it, a welcome message says "Welcome, Team Pravy!"

The dashboard features three main statistics boxes:

- Total Transactions:** 5 (Total Amount: \$18500.00)
- Daily Spending Limit:** \$100.00 (Today's Spending: \$0.00)
- Borrowed Amount:** \$0.00 (From future limits)

At the bottom, there is a "Quick Actions" section with buttons for Add Transaction, Manage Limit, View Reports, and Manage Payments. The "Manage Limit" button is highlighted in yellow.

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← ⌛ 127.0.0.1:5000/user/register Summarize ⚡ ⚡ ⚡ ...

Register for Fingen

Username

Email

Password

Register

Already have an account? [Login here](#)

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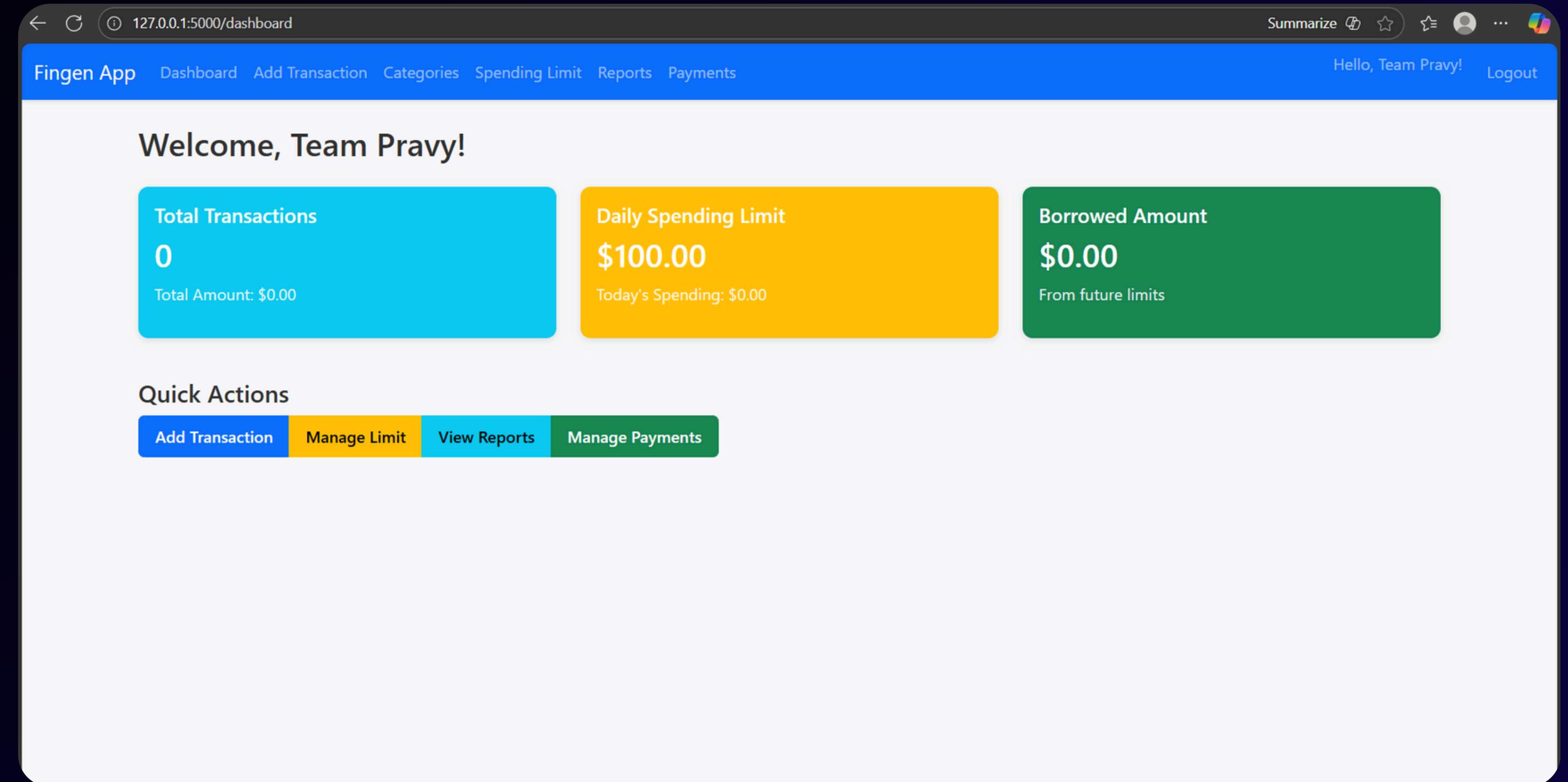
← ⌛ 127.0.0.1:5000/user/login Summarize ⚡ ⚡ ⚡ ⚡ ...

Login to Fingen

Email

Password

Don't have an account? [Register here](#)

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A screenshot of a web browser displaying the Fingen App dashboard at 127.0.0.1:5000/dashboard. The page has a blue header bar with the Fingen App logo and navigation links: Dashboard, Add Transaction, Categories, Spending Limit, Reports, and Payments. On the right side of the header are "Hello, Team Pravy!" and "Logout". The main content area starts with a welcome message "Welcome, Team Pravy!". Below it are three colored boxes: a teal box for "Total Transactions" (0, Total Amount: \$0.00), a yellow box for "Daily Spending Limit" (\$100.00, Today's Spending: \$0.00), and a green box for "Borrowed Amount" (\$0.00, From future limits). At the bottom is a "Quick Actions" section with four buttons: "Add Transaction" (blue), "Manage Limit" (yellow), "View Reports" (teal), and "Manage Payments" (green).

Fingen App

Dashboard Add Transaction Categories Spending Limit Reports Payments

Hello, Team Pravy! Logout

Welcome, Team Pravy!

Total Transactions
0
Total Amount: \$0.00

Daily Spending Limit
\$100.00
Today's Spending: \$0.00

Borrowed Amount
\$0.00
From future limits

Quick Actions

Add Transaction Manage Limit View Reports Manage Payments

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← ⌛ 127.0.0.1:5000/transaction/add

Fingen App Dashboard Add Transaction Categories Spending Limit Reports Payments Hello, Team Prav! Logout

Add New Transaction

Transaction Type

Expense

Category

Food (expense)

Date

11/11/2025

Amount

Description

Add Transaction Cancel

A screenshot of a web browser displaying the Fingen App's transaction addition interface. The URL in the address bar is 127.0.0.1:5000/transaction/add. The page title is "Add New Transaction". The form includes fields for Transaction Type (set to "Expense"), Category (set to "Food (expense)"), Date (set to "11/11/2025"), Amount (empty), and Description (empty). At the bottom are "Add Transaction" and "Cancel" buttons.

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127.0.0.1:5000/limit/

Fingen App Dashboard Add Transaction Categories Spending Limit Reports Payments Hello, Team Prav! Logout

Daily limit updated successfully! X

Manage Spending Limit

Current Status

Daily Limit: \$100.00

Today's Spending: \$0.00

Remaining: \$100.00

Borrowed Amount: \$0.00

Update Daily Limit

New Daily Limit (\$)

Update Limit

Borrow from Future Limit

Need extra spending today? Borrow from future days' limits.

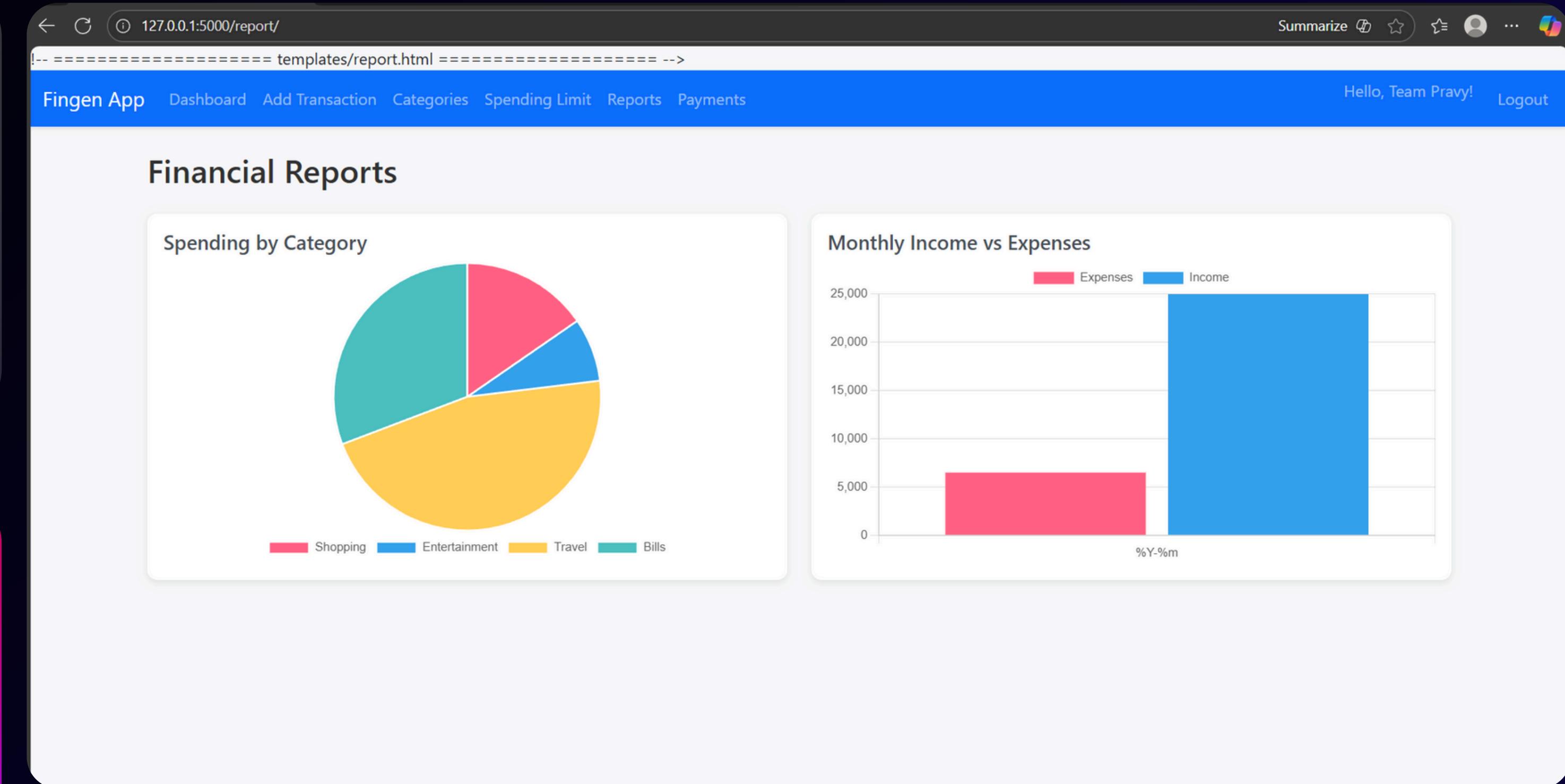
Amount to Borrow (\$)

Borrow Amount

A screenshot of a web browser displaying the Fingen App's Spending Limit Management page. The URL is 127.0.0.1:5000/limit/. The page has a blue header with the Fingen App logo and navigation links: Dashboard, Add Transaction, Categories, Spending Limit, Reports, Payments, Hello, Team Prav!, and Logout. A green success message box says "Daily limit updated successfully!" with a close button. Below it, a section titled "Manage Spending Limit" shows "Current Status" with "Daily Limit: \$100.00", "Today's Spending: \$0.00", "Remaining: \$100.00", and "Borrowed Amount: \$0.00". To the right, there are two forms: one for "Update Daily Limit" where "New Daily Limit (\$)" is set to 100.00 and a "Update Limit" button; and another for "Borrow from Future Limit" asking if extra spending is needed and providing an "Amount to Borrow (\$)" input field and a "Borrow Amount" button.

Sample
Output

Reports



Manage Categories

Add New Category

Category Name

Type

Expense

Add Category

Your Categories

Name	Type	Actions
Food	expense	<button>Delete</button>
Travel	expense	<button>Delete</button>
Bills	expense	<button>Delete</button>
Shopping	expense	<button>Delete</button>
Entertainment	expense	<button>Delete</button>
Salary	income	<button>Delete</button>
Freelance	income	<button>Delete</button>
Other	income	<button>Delete</button>

Categories

Sample Output

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127.0.0.1:5000/payment/

Fingen App Dashboard Add Transaction Categories Spending Limit Reports Payments Hello, Team Prav! Logout

Payment added successfully! X

Manage Payments

Add New Payment

Amount (\$)

Description

Add Payment

Payment History

Date	Description	Amount	Status	Actions
2025-11-12 00:35	EMI	\$3000.00	unpaid	<button>Mark Paid</button> <button>Delete</button>

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Challenges Faced

- Establishing database connection and resolving MySQL access errors
- Integrating Flask Blueprints for modular development
- Managing sessions and authentication
- Designing a modern and intuitive UI
- Coordinating tasks efficiently under limited time

“Each bug fixed was a lesson learned.”

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- Simplifies financial tracking
- Encourages mindful spending habits
- Keeps you within your daily budget
- Builds awareness of your financial health
- Promotes smarter, stress-free living

Real-Life Impact

FINGEN is more than an app — it's your daily money mirror.



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Thank You