School of Technology, Design and Computer Application Silver Oak College of Compter Application
Department of Computer Application

A PROJECT PRESENTATION ON

AI Finance Platform

Submitted By

Parate Dhvanit D
(EnNo:

2204030102153)

Solanki meet V
(EnNo:2204030102644)

Zapadiya Rahul J (En no.:
2204030102835)

Bachelor of Computer Application

Semester VI

Group No: 26

Guide
Ms. Vaishali Patel

1. PROJECT PROFILE

Project Profile:	AI Finance Platform
Objective:	Automate financial tracking using AI (GEMINI API). Manage budgets, transactions, and generate alerts/reports.
Platform of Application:	Web base Application
Front End Tool:	Next JS (For both Client side and Server side)
Back End Tool:	Supabase Database, Clerk Authenatication
Project Duration :	6 Months
Project Guide :	Mrs Vaishali Patel
Submitted By :	Parate Dhvanit : 2204030102153 Solanki Meet : 2204030102644 Zapadiya Rahul : 2204030102835
Submitted To :	Department Of Computer Application

2. EXISTING SYSTEM

- Most financial tracking systems require manual input of transaction details.
- Receipt data needs to be manually which is time-consuming and error-prone.
- Budget tracking often requires separate spreadsheets or applications.
- Many existing systems lack intelligent notification systems for budget overruns.
- Limited AI integration for automating financial data extraction.
- User need to check their budgets manually to avoid overspending.

3. NEED FOR NEW SYSTEM

- Automated receipt scanning saves time and reduces data entry errors.
- Integrated transaction management and budget tracking in a single platform.
- Proactive budget alerts to prevent overspending (email alerts at 80% threshold).
- AI-powered data extraction for faster and more accurate financial record keeping.
- Automated monthly financial reports generation.
- Responsive design that works across all devices.

COMPARATIVE ANALYSIS

Features	Mint	YNAB	Personal Capital	AI Finance Platform
UI & UX	✔	✔	✔	✔
Receipt Scanning	✖	✖	✖	✔
Budget Alerts	✔	✔	✖	✔
AI Integration	✖	✖	✖	✔
Monthly Reports	✔	✔	✅	✔
Authentication	✔	✔	✔	✔
Free to Use	✖	✖	✔	✔

4.1 USER OF THE SYSTEM

(1) Regular User:-

- The user can register and log in to the system using clerk Authentication.
- The user can scan receipt and add transaction automatically.
- The user can add, edit, and delete transactions manually.
- The user can set and manage monthly budgets.
- The user can view transaction statements and records.
- The user receives email alerts when budget reaches 80% threshold.
- The user receives monthly financial reports.

4. FUNCTIONAL SPECIFICATION

4.1 USER OF THE SYSTEM

(2) Admin:-

- The admin can log into system with admin credentials.
- The admin can view system usage statistics.
- The admin can manage user accounts.
- The admin can troubleshoot issues.

4. FUNCTIONAL SPECIFICATION

4.2 MODULE OF THE SYSTEM

- **Authentication Module :-**

  Users can register and log in securely using clerk authentication.

- **Receipt Scanner Module :-**

  Users can scan receipt to automatically extract and add transaction data.

- **Transaction Management Module :-**

  Users can add, edit and view transaction details.

- **Budget Management Module :-**

  Users can create and manage monthly budgets across different categories.

4. FUNCTIONAL SPECIFICATION

4.2 MODULE OF THE SYSTEM

- **Notification System :-**

  System sends budget alerts and monthly reports via email.

- **Report Generation Module :-**

  System generates detailed monthly financial reports.

5. SYSTEM REQUIREMENT

5.1 MINIMUM SOFTWARE REQUIREMENT

Server Side Requirement	
Operating System	Linux /Window Server
Web Server	Node.js
Front-End Tools	Next,js, React, Tailwind CSS
Back-End Tool	Supabase.

Client Side Requirement	
Operating System	Any OS with modern web browser.
Web Browser	Google Chrome, Firefox, Safari, Brave etc.

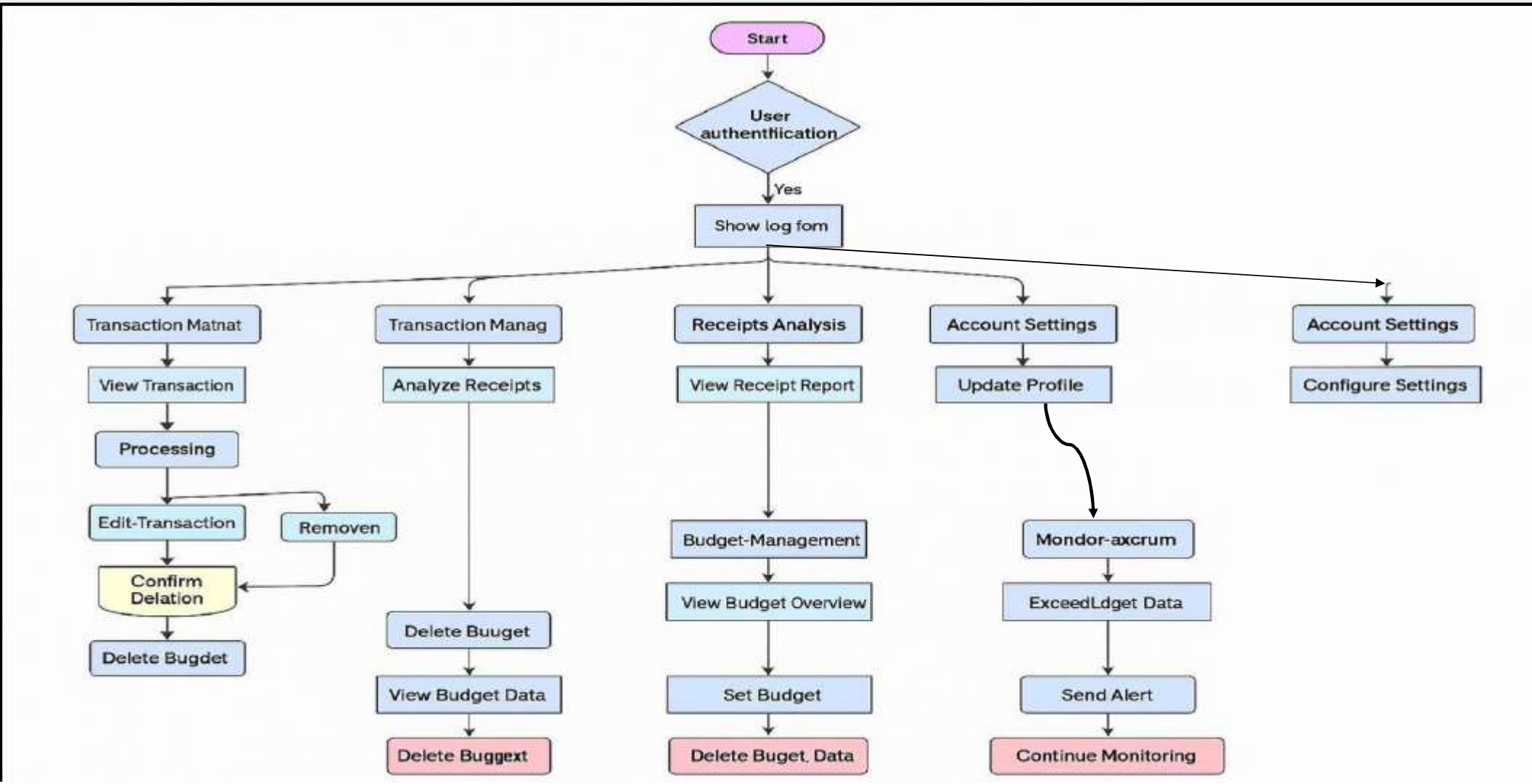
5. SYSTEM REQUIREMENT

5.2 MINIMUM HARDWARE REQUIREMENT

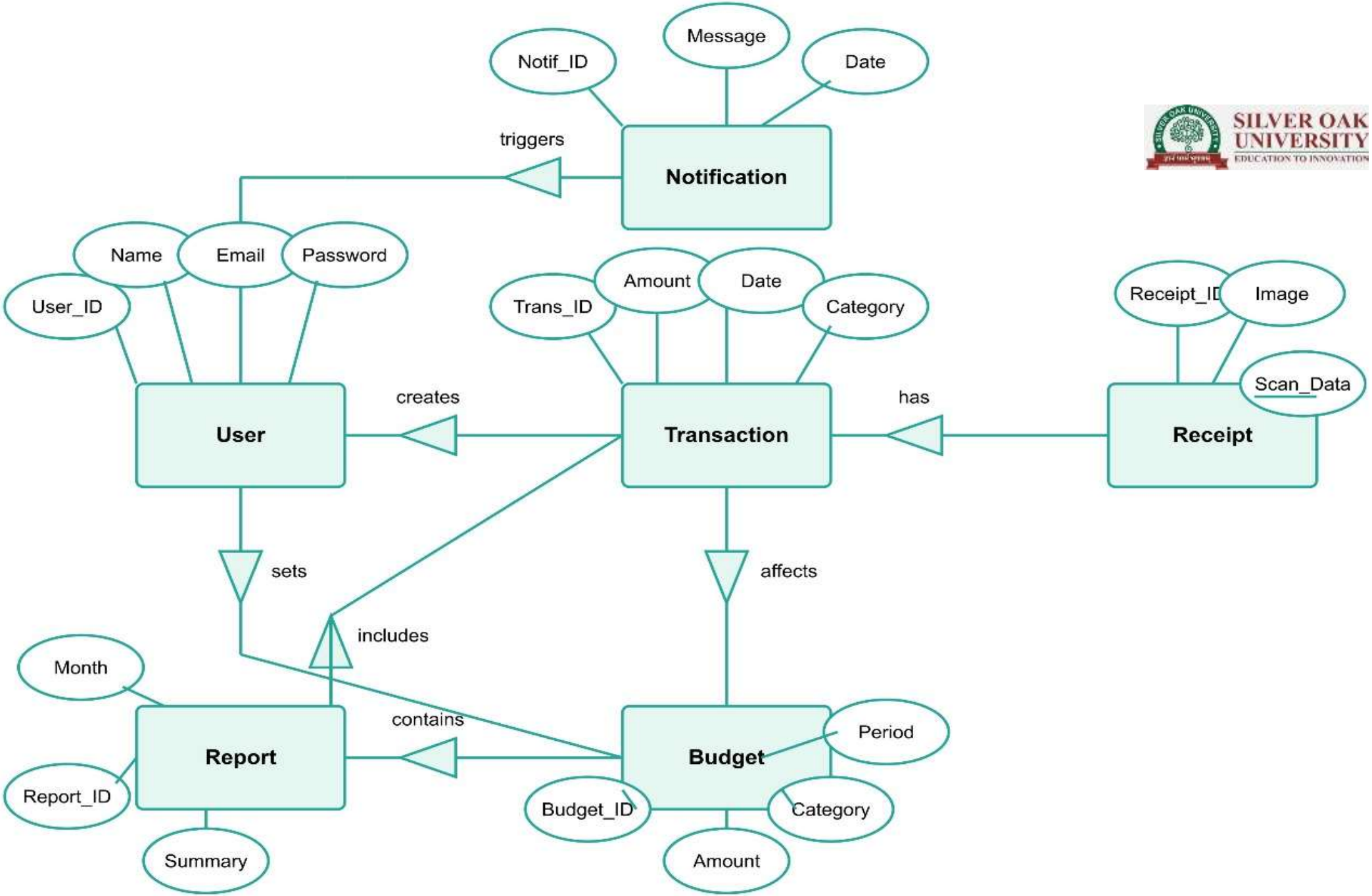
Server Side Requirement	
Processor	2.0 GHz or higher
RAM	4 GB or Higher
Hard disk	20 GB(Free Space)

Client Side Requirement	
Processor	1.6 GHz
RAM	4 GB
Hard disk	5 GB(Free Space)

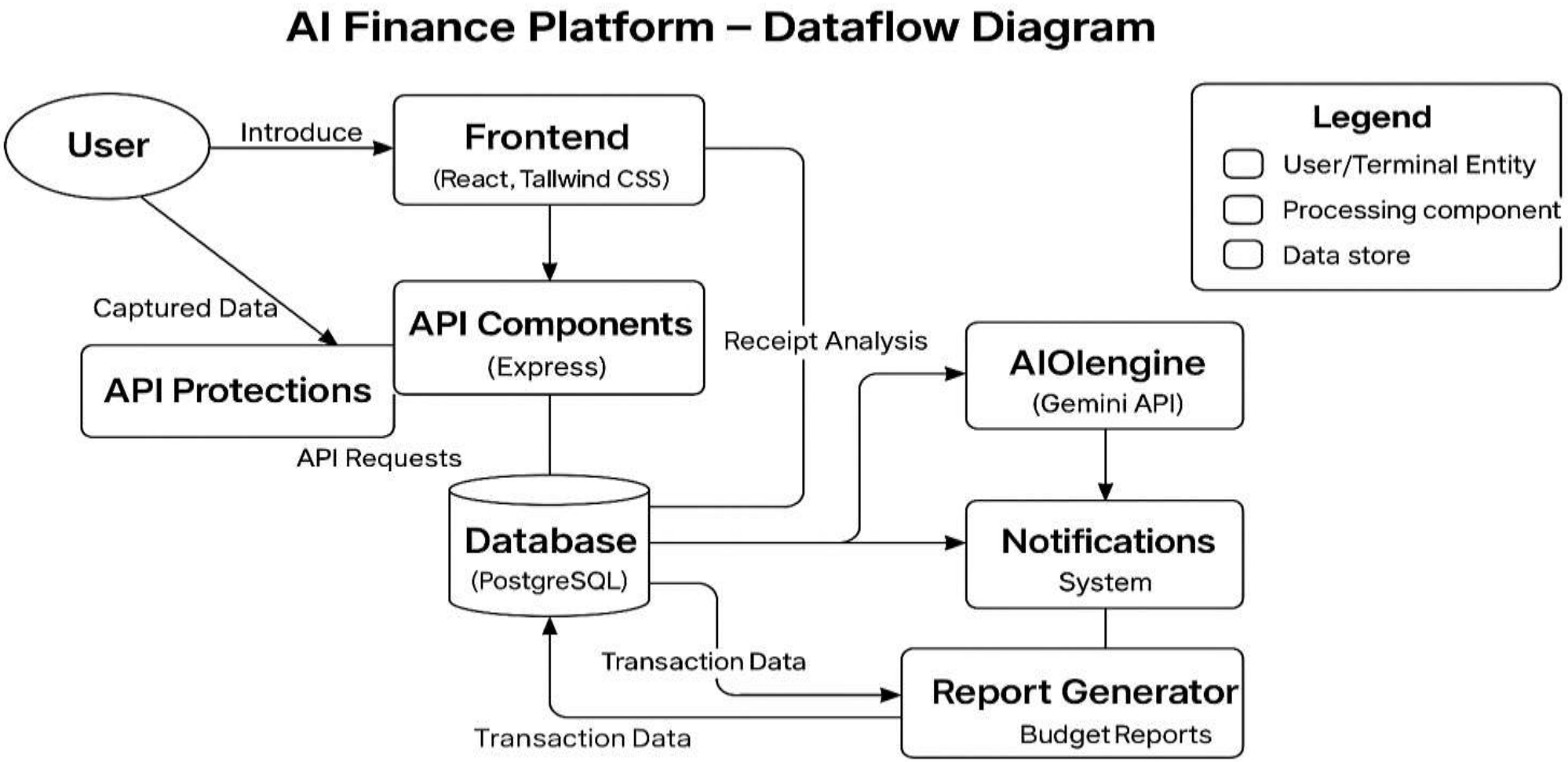
6. SYSTEM FLOWCHART



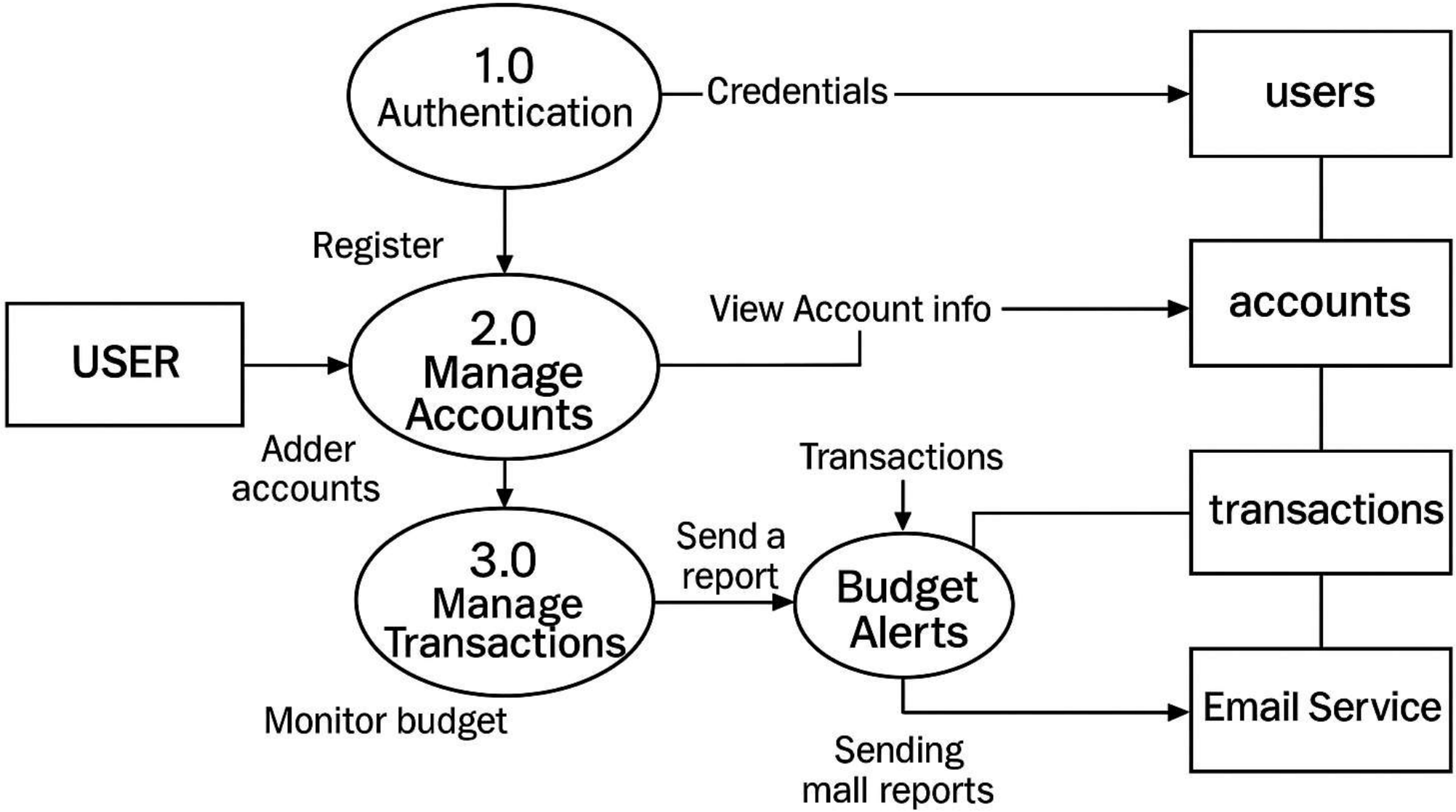
7. ER DIAGRAM


Notif_ID
Message
Date
triggers
Notification
Name
Email
Password
User_ID
Amount
Date
Trans_ID
Category
Receipt_ID
Image
Scan_Data
User
creates
Transaction
has
Receipt
sets
affects
includes
Month
contains
Report
Budget
Period
Report_ID
Budget_ID
Category
Summary
Amount

8. DATAFLOW DIAGRAM



8.2 FIRST LEVEL DFD



9. DATA DICTIONARY

❖ **TABLE NAME**

1) users
2) accounts
3) budgets
4) transactions

Users

Table Name : -	users
Primary Key : -	user_id
Description : -	To store user information

Sr. No	id	ClerkUserId	email	name	createAt
1	107eb73c-beee-4db1-b2b8-3a5b9e259cd6	user_2skKGwvqbnc2jW5dv5IYKn353iP	paratedhvanit@gmail.com	Dhvanit Parate	2025-02-04 16:01:07.938
2	c8f06132-08c0-4cb3-a033-ca23cb41182e	user_2sToAYnLCjCvx4iTTZAS7ryEvQK	dhvanitparate123@gmail.com	Dhvanit Parate	2025-02-03 12:13:29.027
3	25a17f1e-d6b4-4e5a-a468-64b841f3f011	user_2vASZZqJdHt2ixMbHpMZlfPw135	rahulzapadiya022@gmail.com	Rahul zapadiya	2025-04-02 09:34:47.263

Accounts

Table Name : -	accounts
Primary Key : -	account_id
Description :-	To store accounts Information in Details.

no	id	name	type	Balance	userid	createdAt
1	598d5b1e-597a-4018-a7b4-fdc5ad4a677f	Work	CURRENT	1000	c8f06132-08c0-4cb3-a033-ca23cb41182e	2025-02-12 05:44:11.78
2	da65d212-1c37-4be3-aeb3-c3709bc7e6d8	Dhvanit	SAVINGS	189892.83	c8f06132-08c0-4cb3-a033-ca23cb41182e	2025-02-09 16:46:07.267

Budget

Table Name : -	budget
Primary Key : -	budget_id
Description :-	To store information of all budget.

Sr. No	id	amount	lastAlert	UserId	CreatedAt
1	e7d976cc-f656-44c0-a9bd-d9f8064b3f24	3000	2025-03-28 02:28:33.655	c8f06132-08c0-4cb3-a033-ca23cb41182e	2025-02-26 12:08:08.155
2	bid_product_id	Int(3)	Foreign Key	To store product id.	12
3	bid_date	date	Not Null	To store bid date	2021-12-02

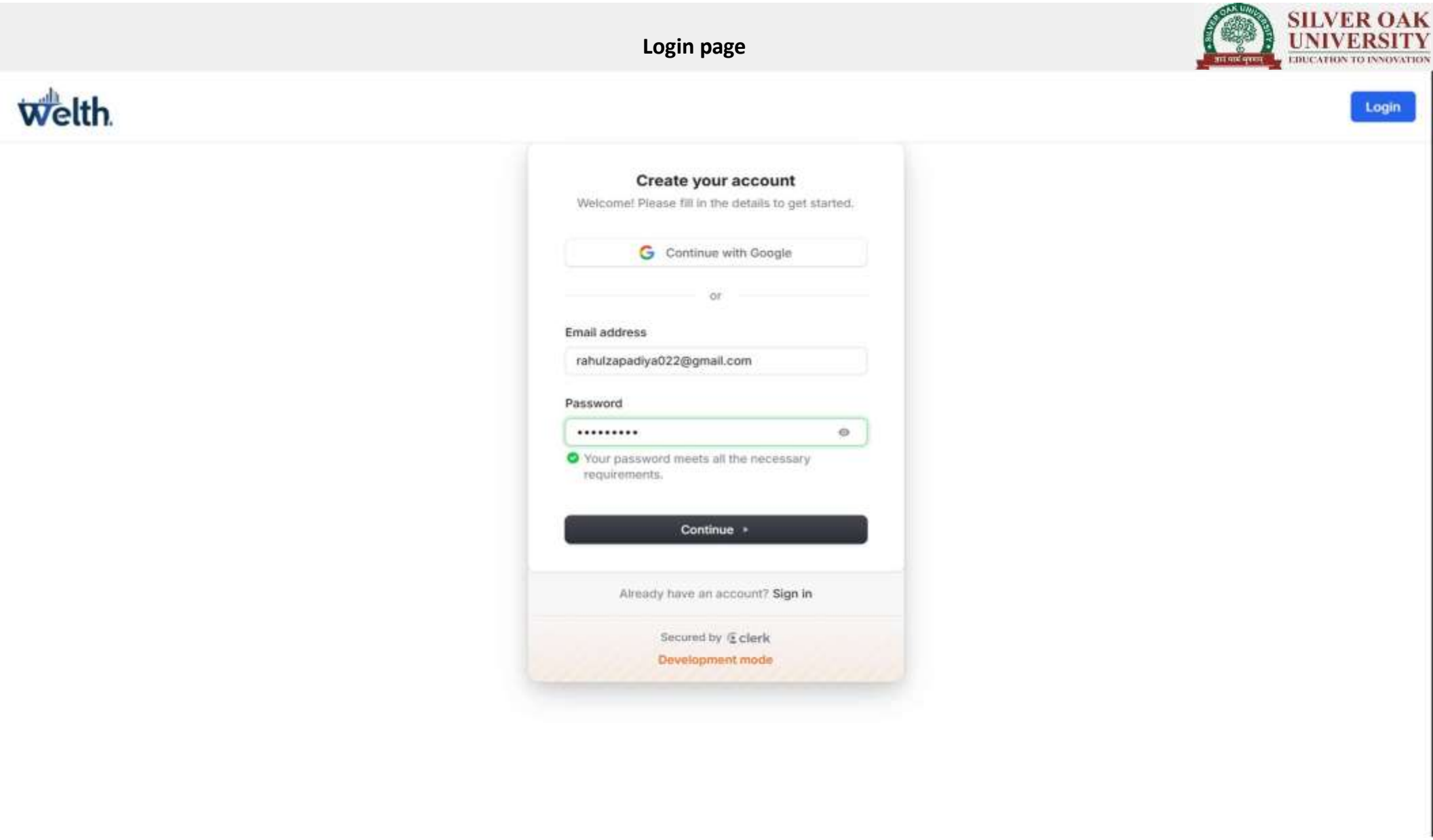
Transactions

Table Name : -	transactions
Primary Key : -	transaction_jd
Description :-	To store information of All transaction.

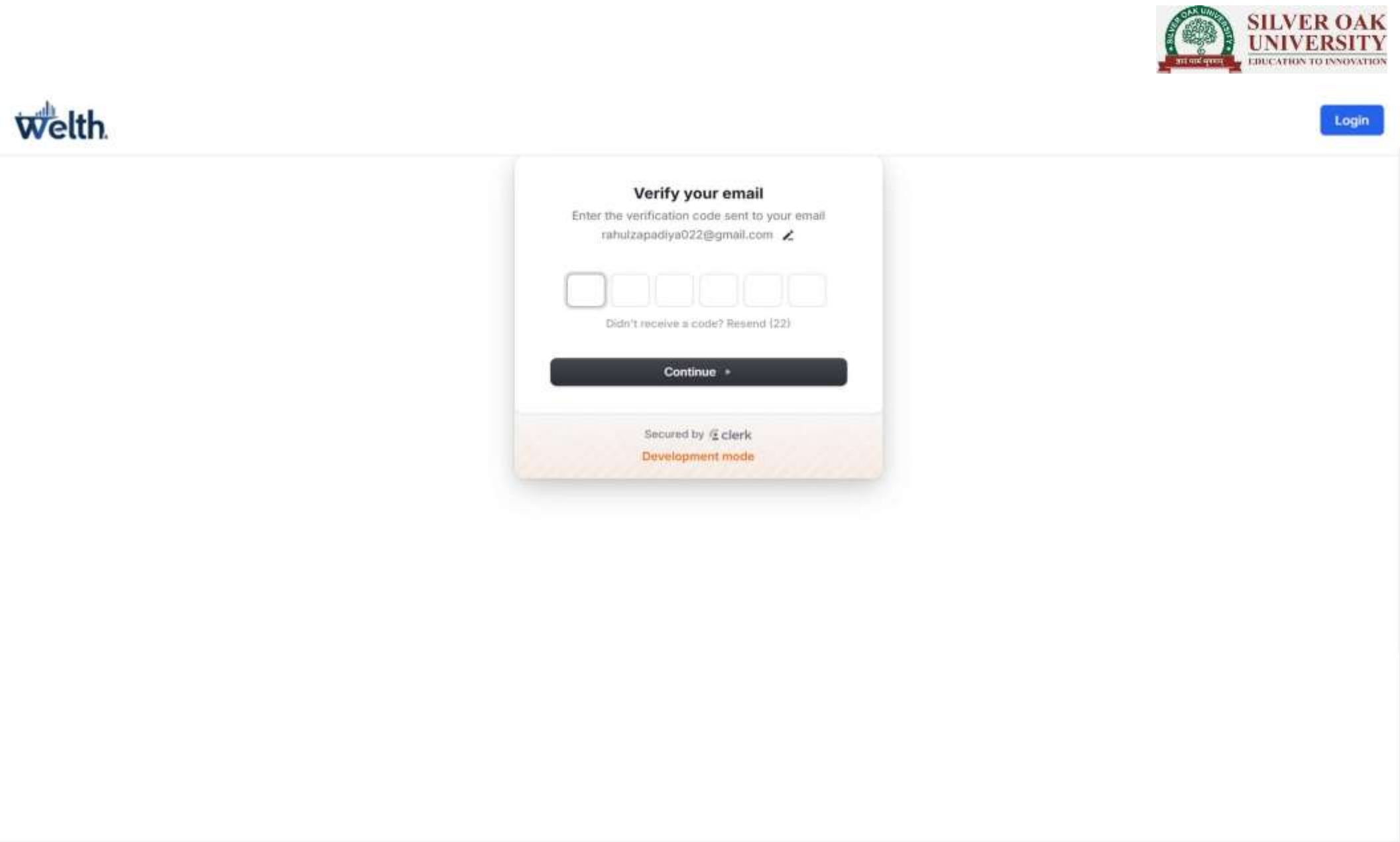
Sr. No	id	Type	amount	Description	date	category
1	7953f50e-c580-473d-ac37-24996ef47ee5	EXPENSE	500	Paid for Dinner	2025-04-02 10:06:47.589	food
2	8e64f72c-fcf3-40ea-9ea2-40e7d7dff596	EXPENSE	100	Shopping for Home	2025-04-02 09:38:28.976	groceries
3	7e8528cc-858a-48fa-84cc-5b5c6363f784	INCOME	6999.97	Received Salary (Recurring)	2025-03-12 13:48:28.658	salary
4	cf08dc6a-5693-4198-b5e1-97d442d3f568	EXPENSE	20	Gifts	2025-03-10 07:17:09.544	gifts
5	217fdd6d-ed19-4eba-ac54-4fda252726cb	EXPENSE	269.77	2.77L of Petrol	2025-03-08 00:00:00	transportation

10. WEBSITE DESIGN

Login page



Description: - The Welth Login page features a clean interface with the platform logo at the top left. Users can sign in either through Google authentication or by entering their email address. The page includes a Welcome message, a prominent continue button, and an sign up for a new Users. The authentication is secured by Clerk, as indicated at the bottom of the login card.

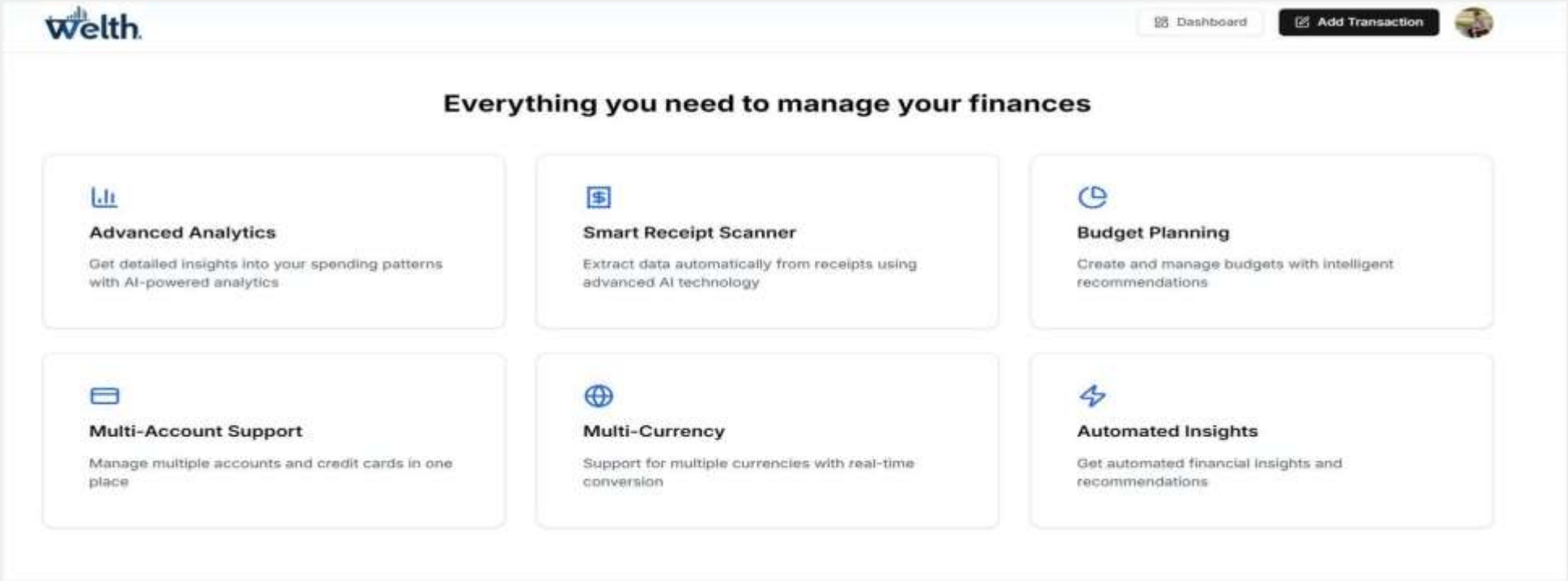


Description: -
The Welth Email Verification page presents a minimal and professional layout. At the top, the Welth logo is placed on the left, while the Silver Oak University emblem is on the right. the page is in development mode

After Login Interface

Description: - This is Our After Login website Interface In Our finance App.

Features In Website

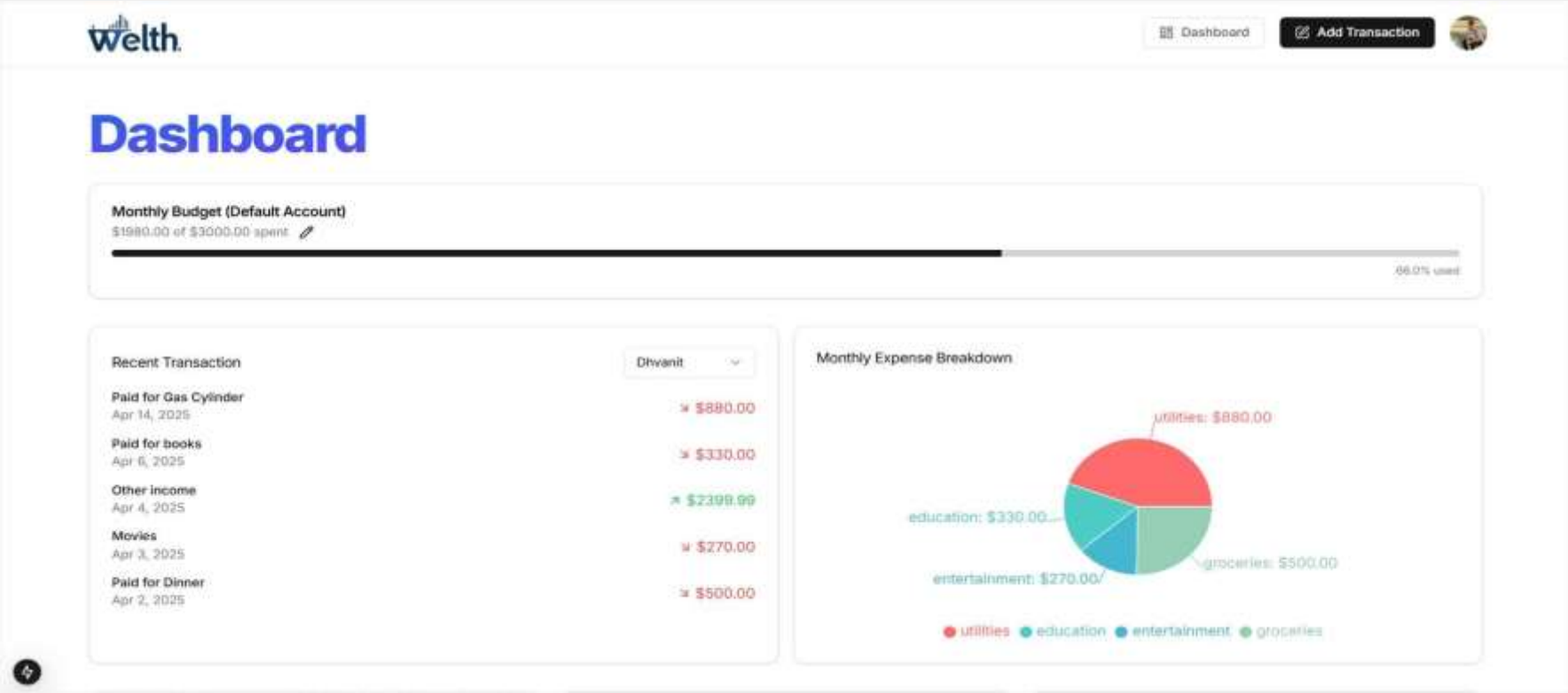


Description: - The Welth platform showcases six key features: Advanced Analytics for spending insights, AI Powered Receipt Scanner, Intelligent Budget Planning, Multi-Account Supports, Multi Currency capabilities, and Automated Insights that deliver Personalized financial recommendations all Presented in a clean, user-friendly grid layout.

Create Account Page

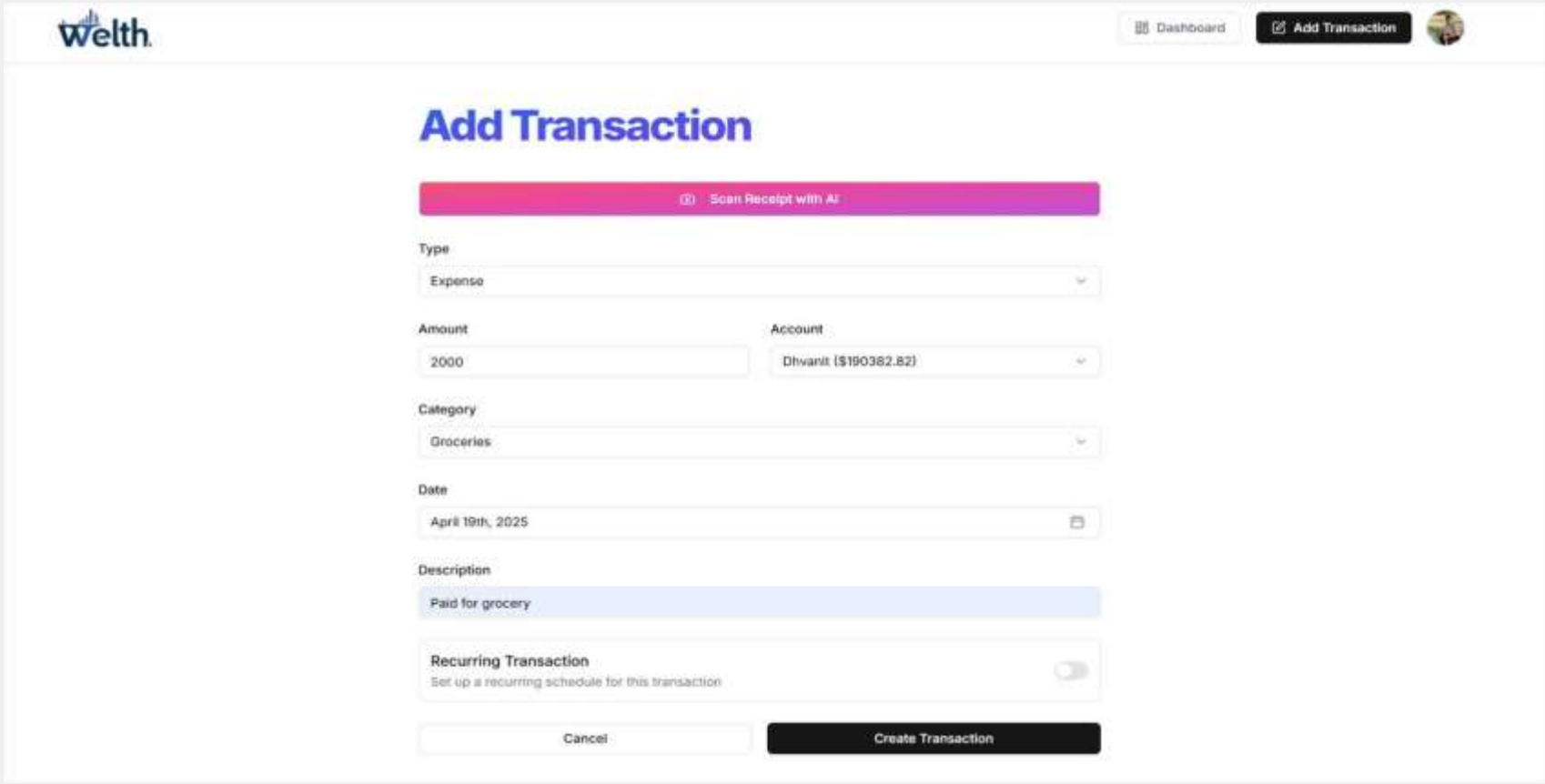
Description: - The “Create New Account” section providesoptions for setting up either a Current Or Savings account in welth platform. Users can name their account, select account type form the dropdown menu, set an initial balance, and choose whether to make it the default accounts for transactions. This functionality allows users to Organize their finances by account type for better financial management.

Dashboard Page



Description: - It is our Dashboard page that user can create and manage their account.

Add Transaction Page

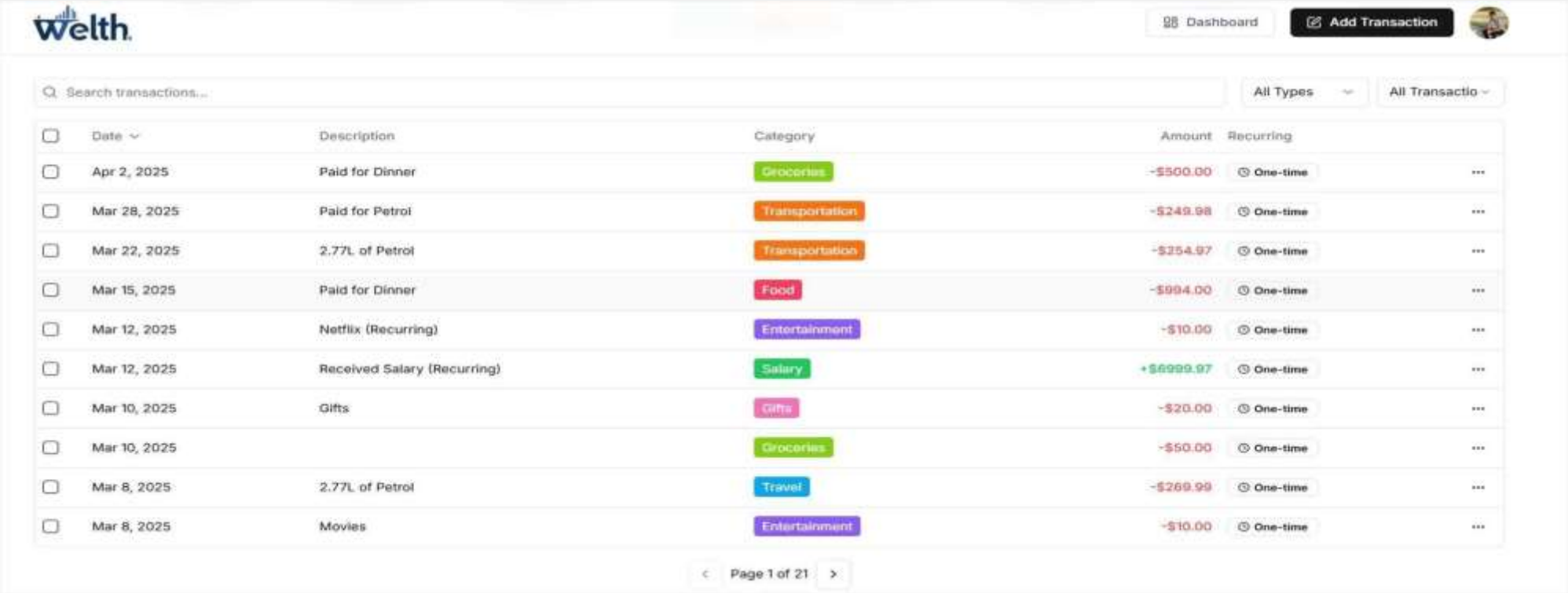


Description: - The "Add Transaction" page provides a user-friendly interface for recorfing financial activities in the Welth Platform. Users Can either manually input transaction details(type, amount, account, category, date, and description) or use the "Scan Receipt With AI" features for automated data extraction. The page also includes an option to set up recurring transaction for regular payments or income.

Account Page

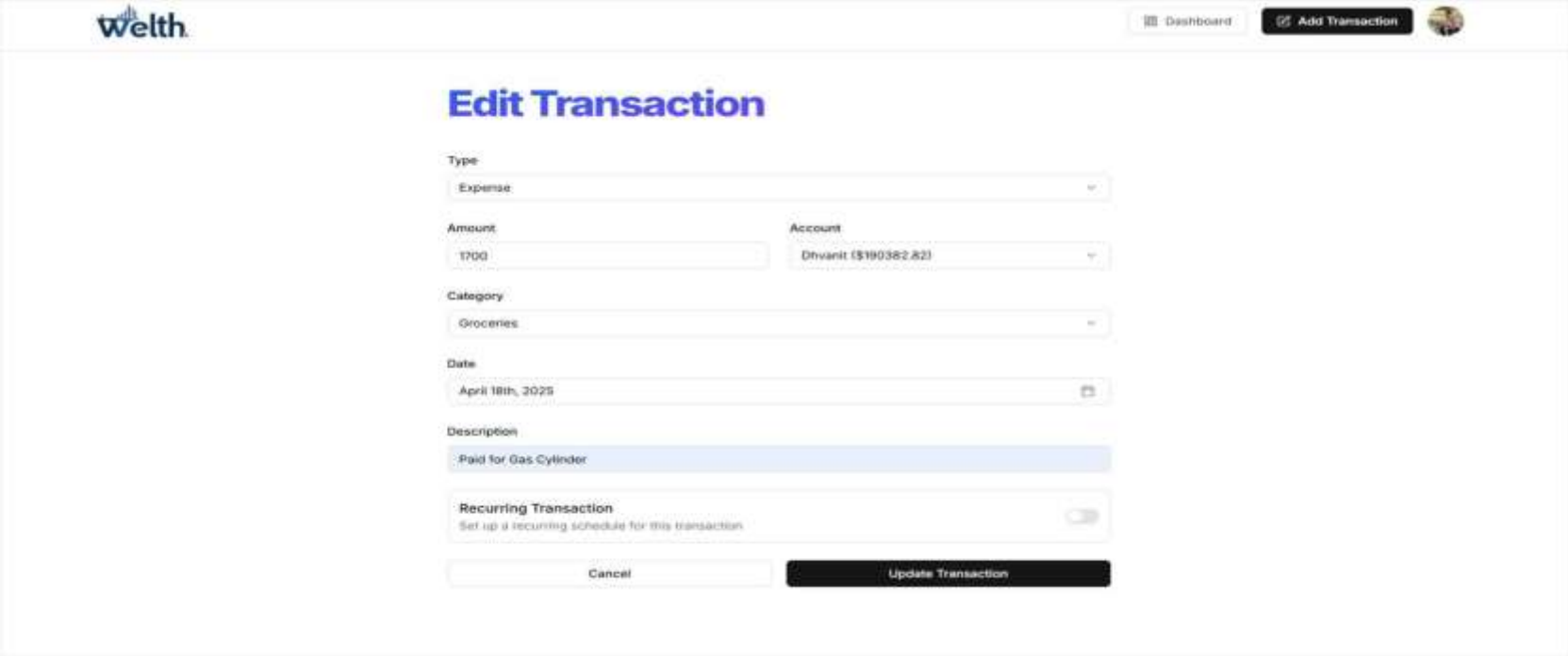
Description: - Its Our Account page user can see their transactions and statements.

Transaction Statement Overview



Description: - The transaction records view in welth finance platform displays a clean, tabular list of financial activities with date, description, category, and amount columns. Users can see their expenses(Marked in red with minus signs) and income(in green with plus signs), with color-coded categories for easy identification. The interface also includes search functionality and filtering options to help users track their spending patterns.

Edit Transaction page with validation



Description: - It is edit Transaction page with validation. User Can easily Edit their transaction Whenever in future if they want to change.

Budget Alert

Description: - This email shows an automated budget alert form welth platform senrt to Dhvanit Parate warning that they've used 98.9% of their monthly budget. The alert provides clear financial information showing the total budget amount(2000), the amount spent so far (1978), and the remaining balance (22). This notification helps users track their spending and avoid exceeding their predetermined budget limits.

Monthly Financial Report

4/19/25, 5:04 PM Gmail - Your Monthly Financial Report - March

Gmail

Dhvanit Parate <dhvanitparate123@gmail.com>

Your Monthly Financial Report - March
1 message

Finance App <onboarding@resend.dev>
To: dhvanitparate123@gmail.com

Sat, Apr 5, 2025 at 5:19 PM

Monthly Financial Report

Hello Dhvanit Parate,

Here's your financial summary for March:

Total Income

$6999.97

Total Expenses

$2178.54

Net

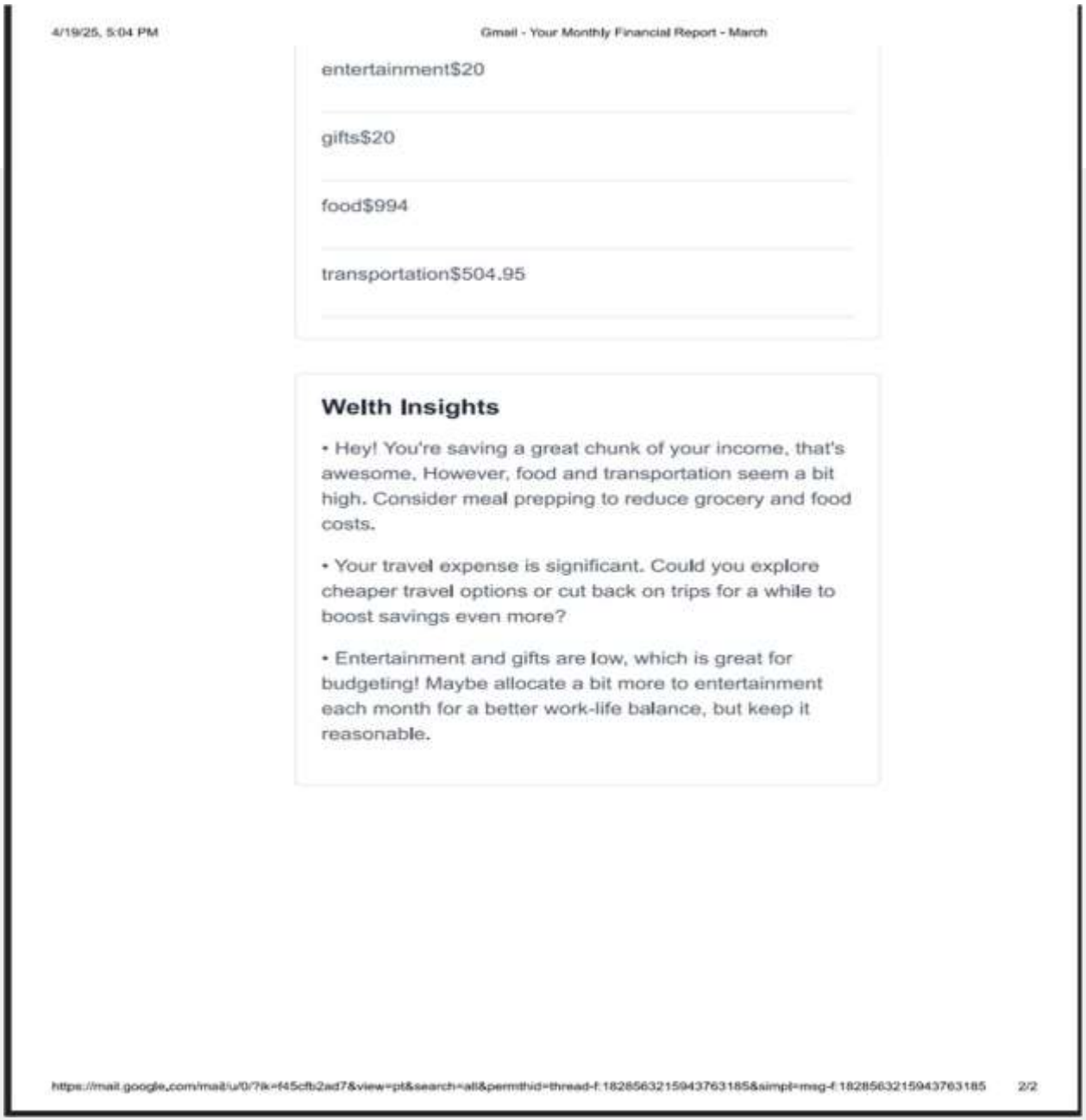
$4821.43

Expenses by Category

groceries$107.6

travel$531.99

https://mail.google.com/mail/u/0/?ik=f45cfb2ad7&view=pt&search=all&permthid=thread-f:1828563215943763185&simpl=msg-f:1828563215943763185 1/2



entertainment$20

gifts$20

food$994

transportation$504.95

Welth Insights

• Hey! You're saving a great chunk of your income, that's awesome. However, food and transportation seem a bit high. Consider meal prepping to reduce grocery and food costs.

• Your travel expense is significant. Could you explore cheaper travel options or cut back on trips for a while to boost savings even more?

• Entertainment and gifts are low, which is great for budgeting! Maybe allocate a bit more to entertainment each month for a better work-life balance, but keep it reasonable.

A quick glance at how money flowed in and out during March — tracking earnings, spending, and where it all went!

From groceries to travel, every dollar spent is categorized.
Income far outweighed expenses, leading to healthy savings.
This snapshot helps build better financial habits month by month.

11. TESTING

No	Test Condition	Description	Expected Result	Actual Output	Status
1	User Registration	Register with valid credentials	User account created successfully	As expected	Pass
2	Receipt Scanning	Scan receipt with clear text	Transaction data extracted correctly	As expected	Pass
3	Transaction CRUD	Add, edit, delete transactions	Operations performed successfully	As expected	Pass
4	Budget Setting	Set monthly budget	Budget created successfully	As expected	Pass
5	Budget Alert	Exceed 80% of budget	Alert email sent	As expected	Pass
6	Monthly Report	End of month report generation	Report generated and sent	As expected	Pass

12. FUTURE ENHANCEMENT

- Mobile application development.
- AI-powered spending insights and recommendations.
- Advanced financial analytics and forecasting.
- Expense sharing functionality for groups.
- Investment tracking and recommendations.
- Multiple currency support.

Financial Software & App References

- Flowlu - Online Work Management Software for Teams
- Quicken Personal Finance and Money Management Software | Quicken
- Money Manager & Budget Planner | Spendee
- EveryDollar – Ramsey
- Best Home Budget App for Android, iPhone, & Web | Goodbudget

13. BIBLIOGRAPHY

- Next.js Documentation: https://nextjs.org/docs
- React Documentation: https://reactjs.org/docs
- Supabase Documentation: https://supabase.io/docs
- Clerk Documentation: https://clerk.com/docs
- Arcjet Documentation: https://docs.arcjet.com/
- Google Gemini API Documentation
- Tailwind CSS Documentation: https://tailwindcss.com/docs
- Shad cn UI Documentation: https://ui.shadcn.com

SILVER OAK UNIVERSITY
EDUCATION TO INNOVATION

THANK YOU