A Project Report On…

Expense Tracker

Developed By…

Bhavik Sapariya v

Submitted To…

Geetanjali College of Computer Science & Commerce
Saurashtra University Rajkot
2023-2024

Guide Name…

PROF. Pranav Trivedi

ACKNOWLEDGEMENTS

While the report for my project work is ready, I feel it is my bound duty to offer my sincere thanks to all those who have helped and guided me in this regard.

Action is very necessary to turn our dreams into reality. My dream was to develop this project. To create a successful and useful project, one needs help, understanding, and coordination from all those who are directly or indirectly involved in it.

Many people have contributed to making this project a reality. I would like to express my gratitude to our **Head of Department**, Prof. Brijesh Shah, for his guidance throughout the project.

When submitting the project report, it is my duty to offer my sincere thanks to those who have assisted me in preparing this project report. I would like to express my gratitude to Prof. Pranav Trivedi for her guidance throughout the project.

He helped me in selecting this topic and guided me to the final completion of my project by reviewing the manuscript of the chapters and providing valuable suggestions.

Before I describe my project in brief, I would like to add a few heartfelt words for those people who have given their time and knowledge to the development of this project.

Last but not least, I am thankful to all my college faculties and friends for their kind cooperation.

A Special thanks from:

Bhavik Sapariya v

PREFACE

To prepare a project and a project report as separate subjects in the 5th semester of Bca a project needs to be prepared on a particular subject after studying it thoroughly.

There is a significant difference between theoretical and practical knowledge, and understanding this difference is crucial for the application of knowledge.

Preparing a project report has been a new and interesting experience for me, although I find it challenging from certain aspects. It has allowed us to grasp theoretical concepts and their practical applications, contributing to greater confidence in our lives.

It was evident that it is essential and instructive not only to learn the principles of software engineering but also to apply them to a software development project. This approach helps in comprehensively understanding all aspects of development within a project.

Through the preparation of this report, I have come to realize the importance of practical training in the field of education. Working with a computerized system is easier than a manual system; it saves time, effort, space, and increases efficiency by generating interest.

My project pertains to the "Expense Tracker" The project report contains information about submersible pumps and their historical details. This project is a part of my fifth semester of the BCA course curriculum at Geetanjali College of Computer Science & Commerce in Rajkot.

I decided to create a web application for our college using ASP.NET technology. Our college has a long-standing reputation as one of the best colleges in Saurashtra University.

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ABSTRACT

The Expense Tracker project is an innovative and efficient solution designed to monitor and control Daily Expense and Income

This app used to reduce unnecessary Expense and provide monthly Expense and Income Report using chart

In this Project I used MVC architecture to optimize code and managed code structure. Also I used advance concept like Dependency injection(DI),Middleware, ASP.NET Identity etc.
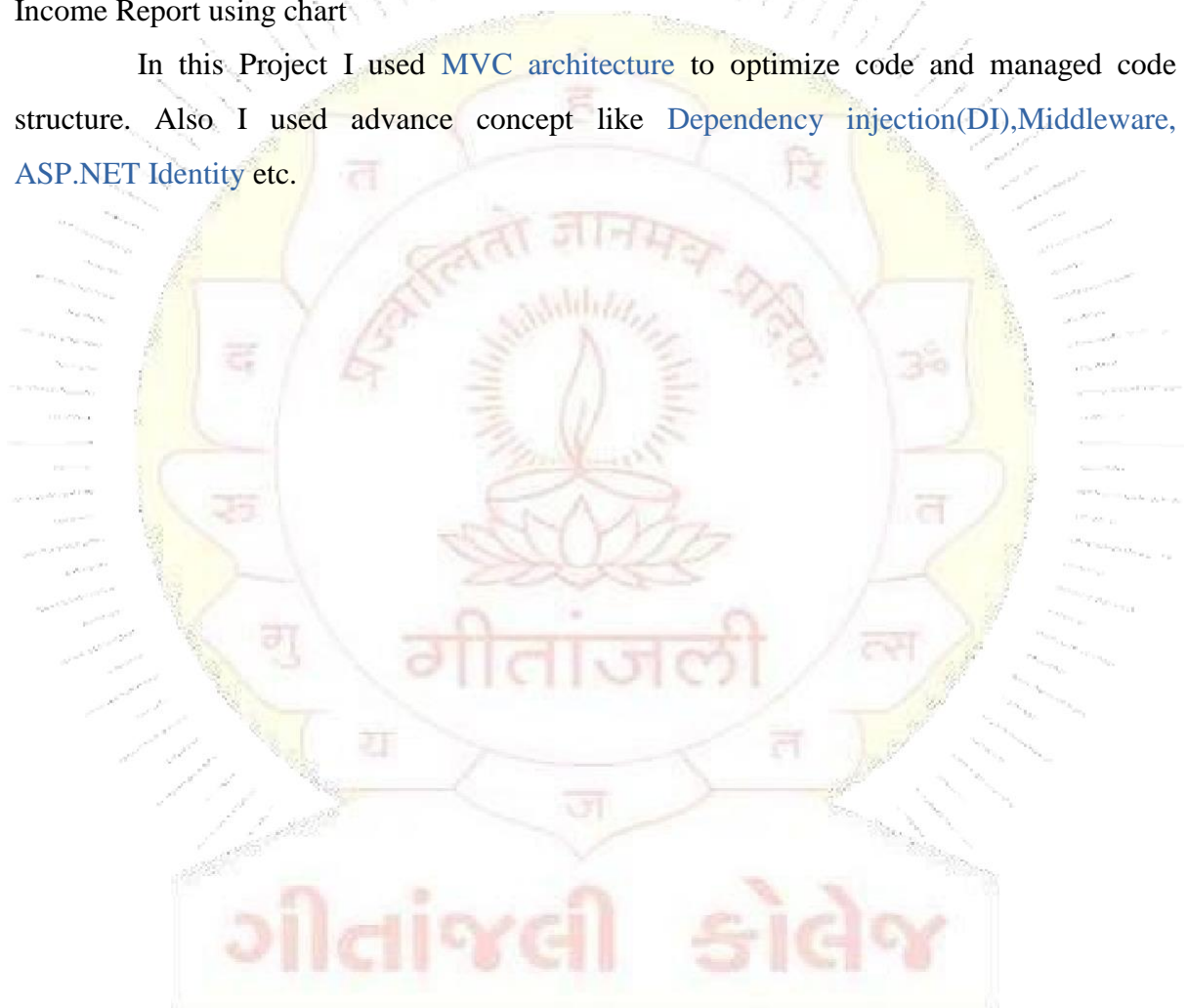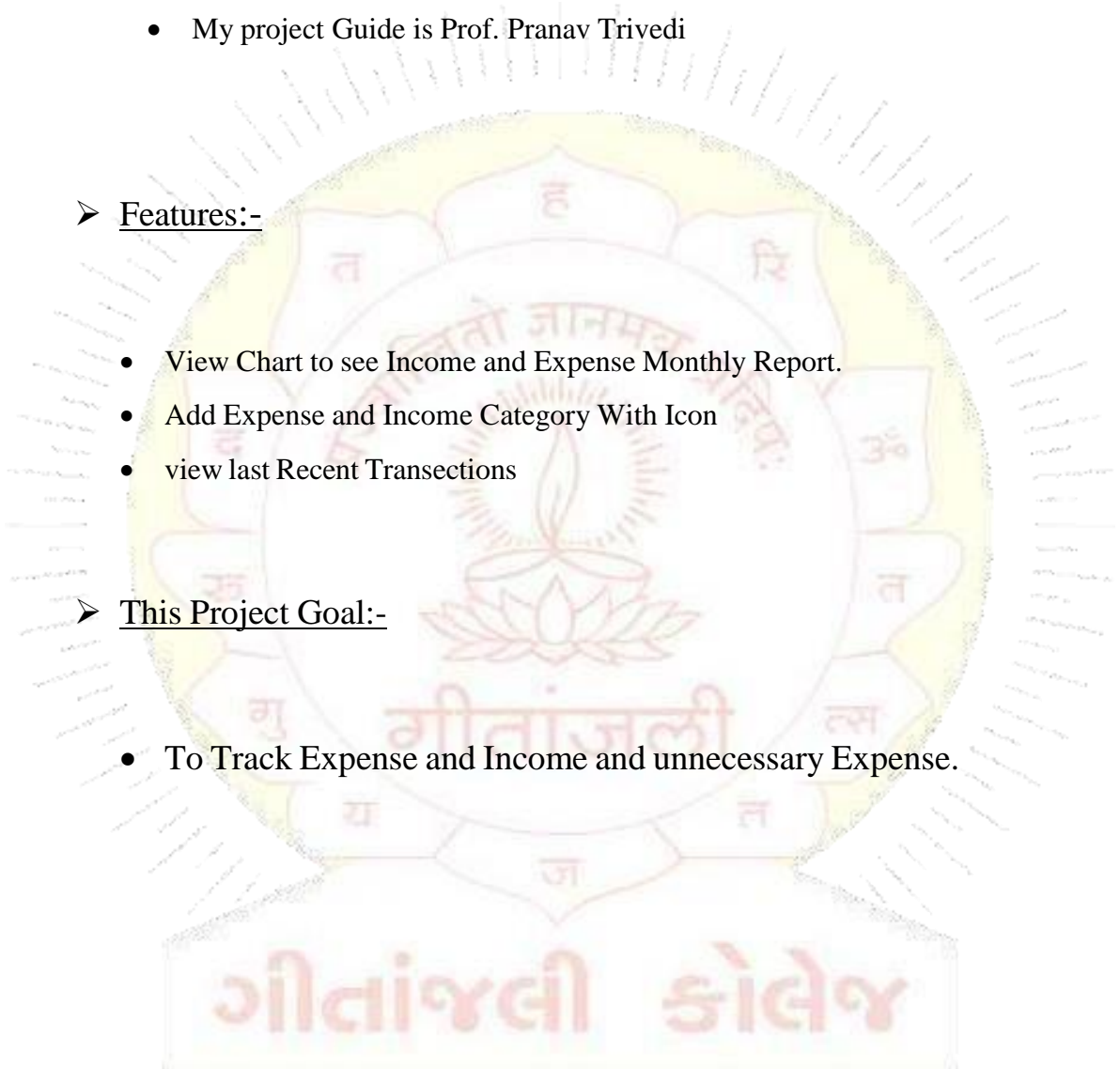
PROJECT SUMMERY

- I have created this project.
- My project definition is Expense Tracker
- My project Guide is Prof. Pranav Trivedi

➢ Features:-

- View Chart to see Income and Expense Monthly Report.
- Add Expense and Income Category With Icon
- view last Recent Transections

➢ This Project Goal:-

- To Track Expense and Income and unnecessary Expense.

PROJECT PROFILE

Developed At   : Geetanjali Collage Computer Science & Commerce

Developed By   : Bhavik Sapariya v.

Division   : BCA Semester 5th

Project Name   : Expense Tracker

Main Pages   : Login Dashboard Category list transaction list

                             Chart etc

Web Browser   : Google Chrome, Internet Explorer.

Operating   : Windows 10

System Web   : SQL Server 2012

Server Editor   : Microsoft Visual Studio – 2022

Guided By   : Prof. Pranav Trivedi
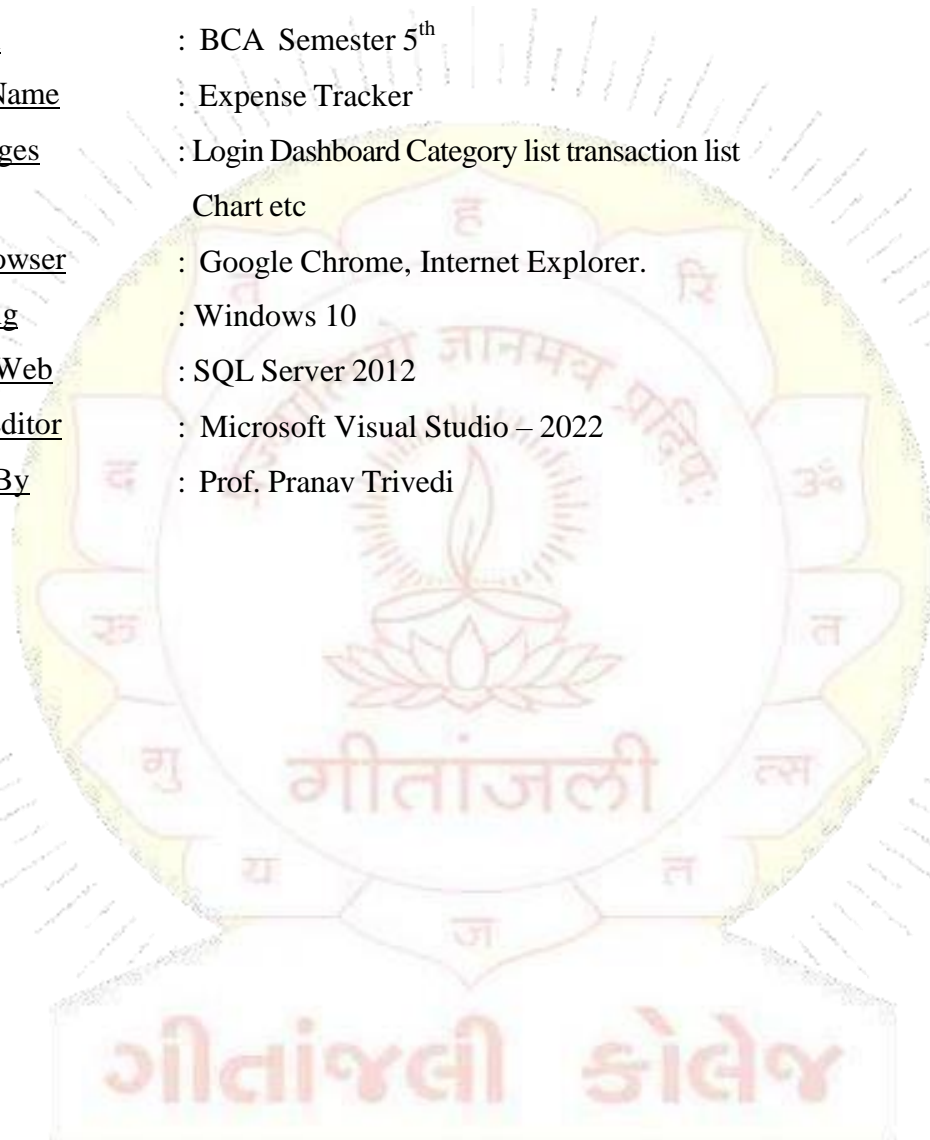
SYSTEM REQUIREMENT

Software

➢ Any windows operating system windows 7 to windows 11

Web Browser (Google Chrome, Internet Explorer, etc…)
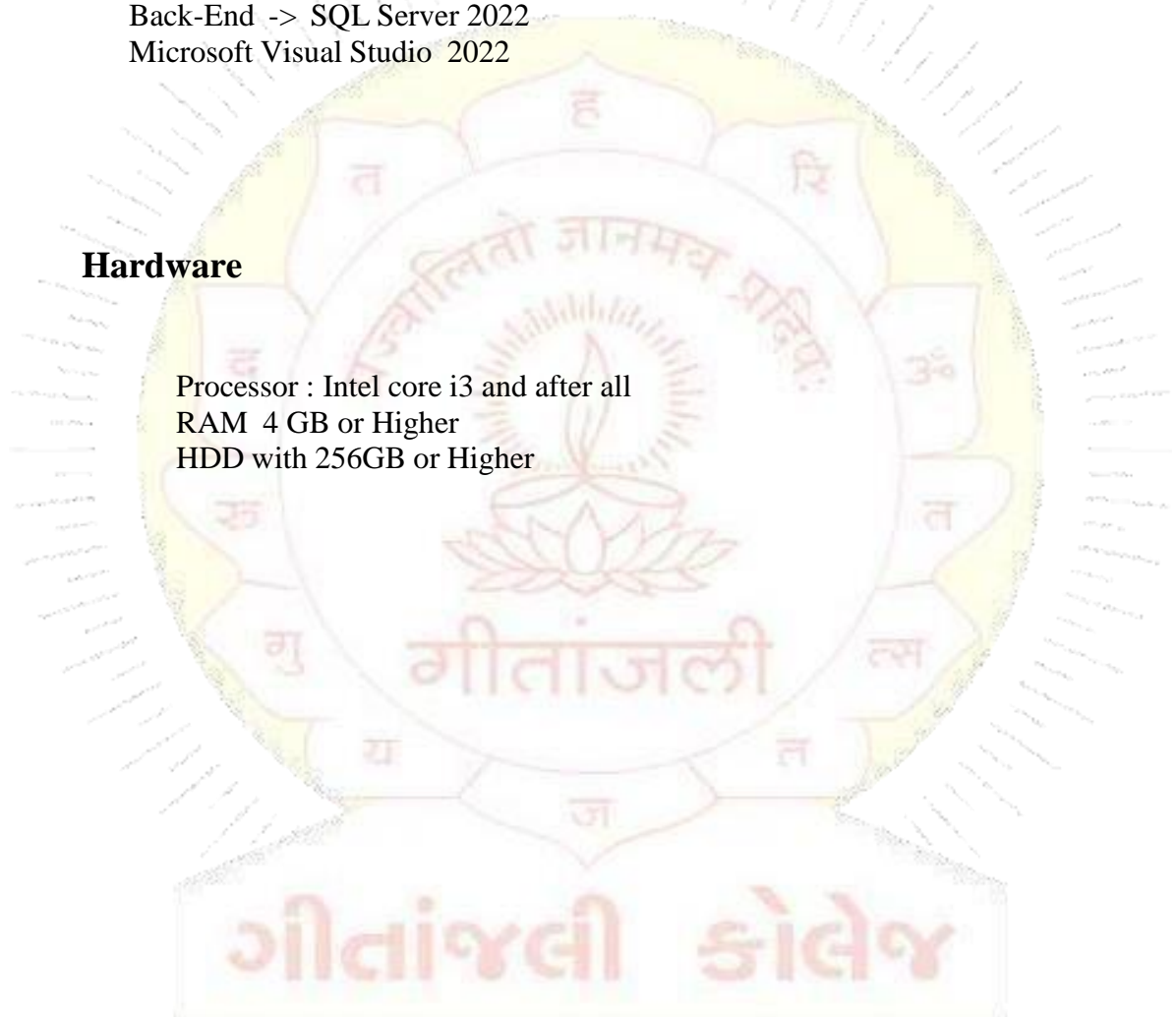Front-End -> ASP.NET with C#
Back-End -> SQL Server 2022
Microsoft Visual Studio 2022

Hardware

Processor : Intel core i3 and after all
RAM 4 GB or Higher
HDD with 256GB or Higher

PLATEFORM SPECIFICATION

➕ Platform is provide the base of develop project in Submersible Pump Management System i used to below platform.

➕ ASP.NET, HTML, SQL Server and operating system.

➢ **ASP.NET:-**

✓ ASP.NET or Active Server Pages .NET, ships as part of the .NET framework and is a technology that allows dynamic creation of documents on web server when they are requested via HTTP.

✓ ASP.NET provides a unified Web development model that includes the services necessary for you to build enterprise class web applications with a minimum of coding.

✓ ASP.NET is part of the .NET framework and enables you to take full advantages of the features of the common language runtime, such as type safety, inheritance, Language interoperability and versioning.

✓ You can code your applications in any language compatible with the common language runtime (CLR), including Microsoft Visual Basic, C#, Jscript.NET and J#.

Expense Tracker

➢ **HTML:-**

- ✓ Hyper Text Mark-up Language (HTML) is a standard language. For creating web pages.
- ✓ It provides number of command that can be used to place and format text, picture and sound on web pages.
- ✓ The linked to other document on the internet.
- ✓ Hyper Text Mark-up Language (HTML) is the computer coding language used to convert ordinary text into active text for display and used on the web and also to give plain, unstructured text the sort of structure human beings relay on to read it
.

➢ **Microsoft SQL Server :-**

- ✓ Microsoft SQL server, often referred to simply as SQL Server, is a Relational Database Management System (RDBMS) developed by Microsoft.
- ✓ It is powerful and widely used database platform for storing, retrieving and managing data.
- ✓ SQL Server is design to work with large datasets and provides various tools and features for data storage, manipulations and analysis.
- ✓ This is the core components responsible for storing, processing and securing data.
- ✓ It supports SQL (Structured Query Language) for managing and querying data.
- ✓ SQL Server Management Studio (SSMS) is a graphical tool used to manage and administer SQL Server databases.

Expense Tracker

- ✓ IT provides user-friendly interface for database development, maintenance and monitoring.
- ✓ Microsoft offers a cloud-based version of SQL Server called Azure SQL Server database.
- ✓ SQL Server provides robust security features, including authentication, authorization, encryption and auditing, to protect sensitive data.
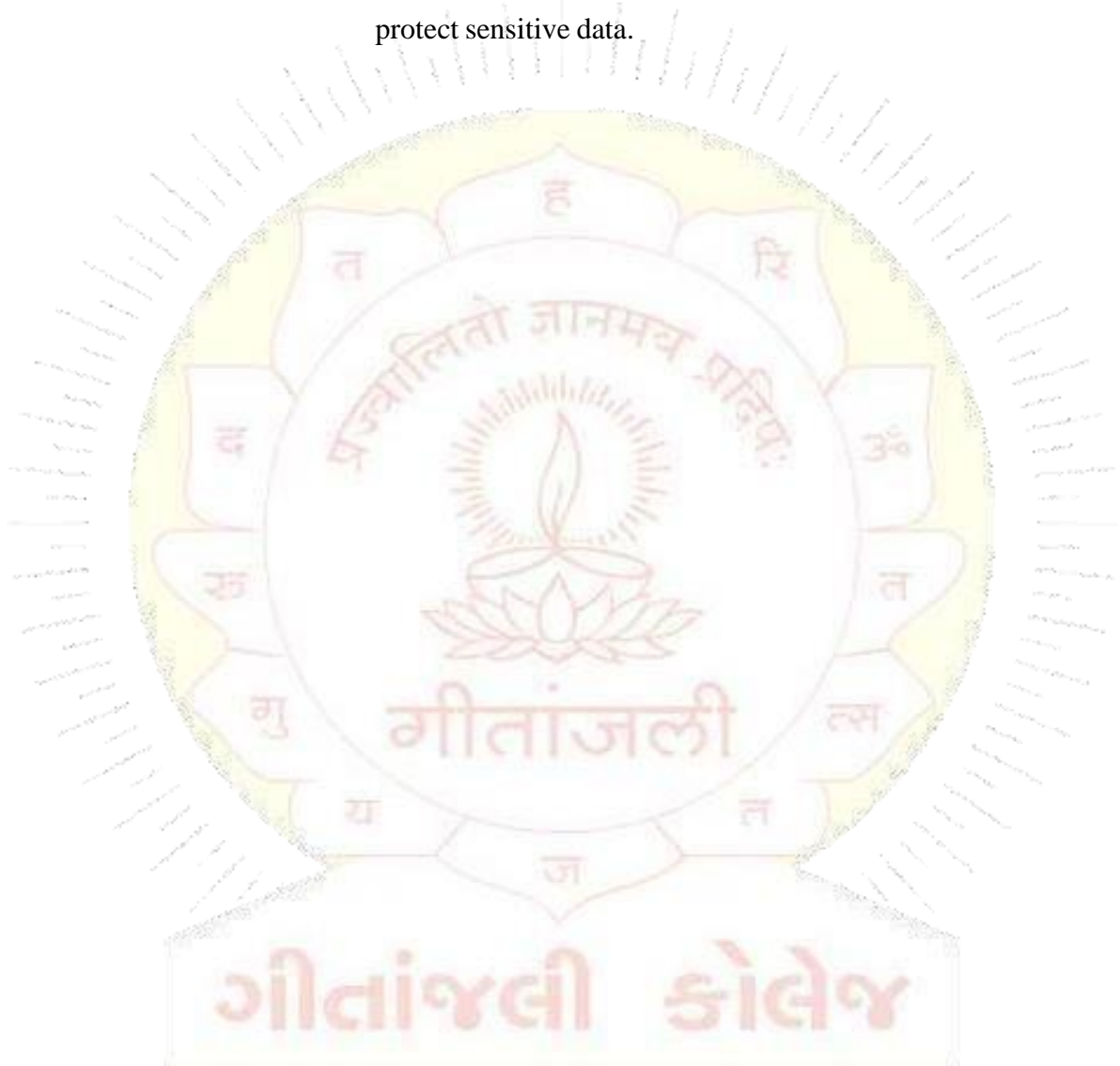
SOFTWARE DEVELOPMENT LIFE CYCLE(SDLC)

Software Development Life Cycle Steps :

⇨ Here, this web application project was developed based on SDLC (Software DevelopmentLife Cycle).

⇨ SDLC has a different step of development of desktop project or any type of Following the SDLC steps are used in the application

System Requirement Analysis

- Feasibility Study
- System Design
- Testing Implementation
- Maintenance

System Requirement Analysis :
In this phase, the development team visits the need for possible software requirements in micro-depth to develop the system.
The basic clearance of the application they informed by the system requirement analysis investigation team. Understanding fully what a project will deliver is critical to its success.

Feasibility Study :
Feasibility means the analysis team's report first study and that after the decision to create this application.

application. The project develops in the 3-tier architecture of the C#.Net

framework

application. Tools and Technology, Economically, Government Rules & Regulations are considered.

➕ System Design :

This phase works on the creations of the first pre-model of the whole system.

In terms of the end user/server technology, the number of tiers needed for the package architecture, the database design, the data structure design, etc., are all defined in this phase.

➕ Implementation :

Implementation was the phase where the actual coding and development took place. Programmers and developers write the software code based on the design specifications. This phase included rigorous testing to identify and fix any coding errors or bugs.

➕ Testing :

The testing phase involved systematically evaluating the software to ensure it met quality standards. Different testing levels, such as unit testing, integration testing, and user acceptance testing, were conducted to validate the software's functionality, performance, and reliability. Defects were identified and addressed during this phase.

➕ Maintenance :

The maintenance phase represented the ongoing support and enhancement of the software post-deployment. It included activities such as bug fixes, updates, security patches and the addition of new features

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Test Cases

Login	To check auth module working perfectly or not	Write correct email and password and login successfully.	Pass
Dashboard	To check dashboard expense amount income and remaining amount .	As per expected all amount done	Pass
Category	To check category create perfectly any issue or not	No issue found working fine output as expected display all the category list	Pass
Add Category	To check category add perfectly or not using type	No issue found working fine output as expected category create success	Pass
Add transaction	Add transaction to check any issue when transaction create	No issue found working fine output as expected transaction create success	Pass
logout	To check if user logout then user can login using url	In this test case I need to check if user logout then other url not access	Pass
Login	To check auth module working perfectly or not	Write correct email and password and login successfully.	Pass

DATA DICTIONARY

Login_tbl :

Name	Data Type	Allow Nulls	Constraints	AI
Id	Int	Not Null	Primary Key	True
email	nvarchar(50)	Not Null	-	-
password	nvarchar(50)	Not Null	-	-

Category_tbl :

Name	Data Type	Allow Nulls	Constraints	AI
Id	int	Not Null	Primary Key	True
title	nvarchar(50)	Not Null	-	-
icon	nvarchar(50)	Not Null	-	-
type	nvarchar(50)	Not Null	-	-

Expense Tracker

Transaction_tbl :

Name	Data Type	Allow Nulls	Constraints	AI
Id	int	Not Null	Primary Key	True
amount	nvarchar(50)	Not Null	-	-
date	datetime2(7)	Not Null	-	-
category_id	nvarchar(50)	Not Null	Foreign Key	-
note	nvarchar(50)	Null	-	-

SYSTEM DESIGN TOOLS

DFD (Data Flow Diagram) :

DFD 0 Level

USER	View Site →		← Log In	USER
	View →	**Expense Tracker**	← Log Out	
	Images Read →		← Add, Delete,	
	Details		Edit	
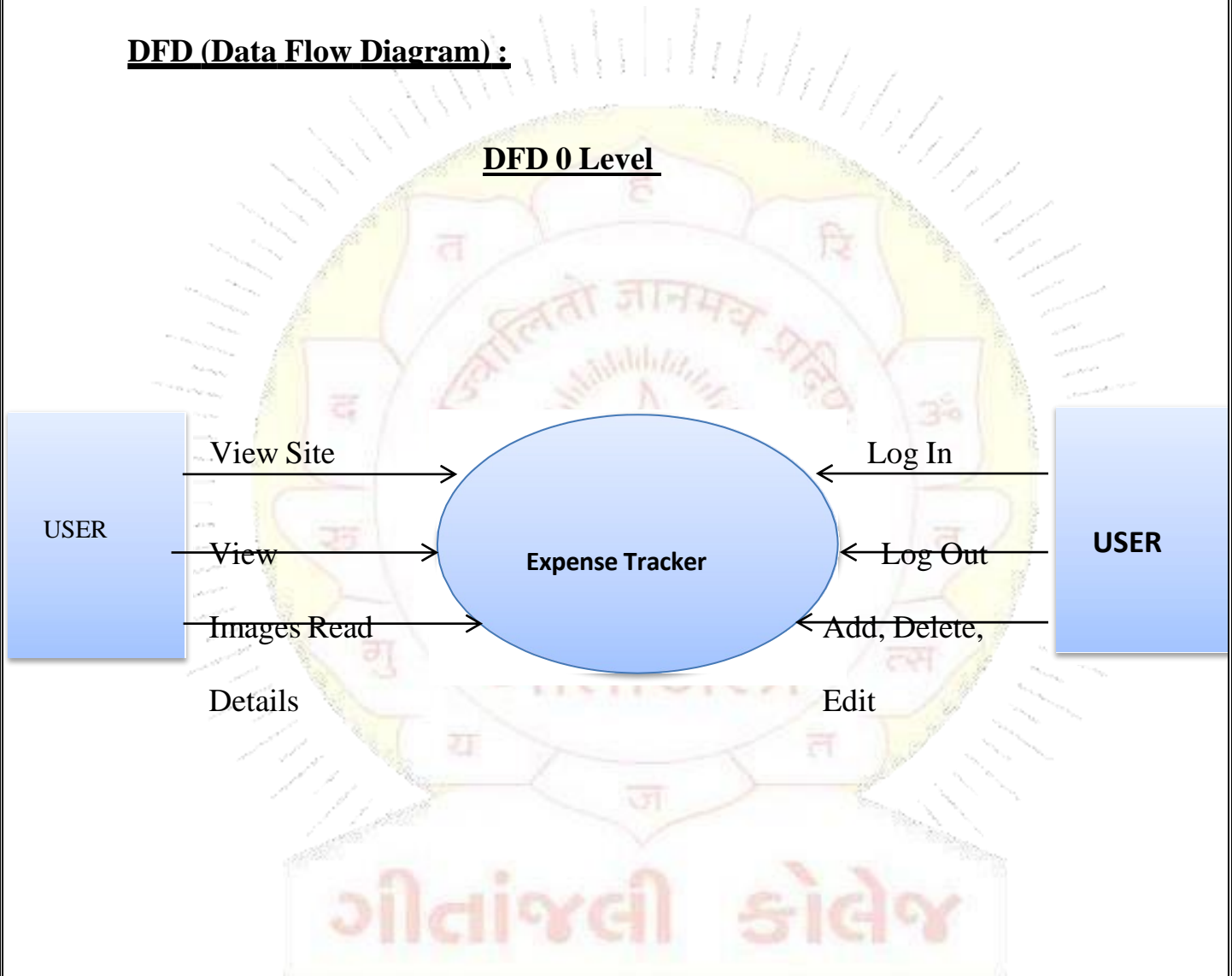
DFD 1 Level Diagram
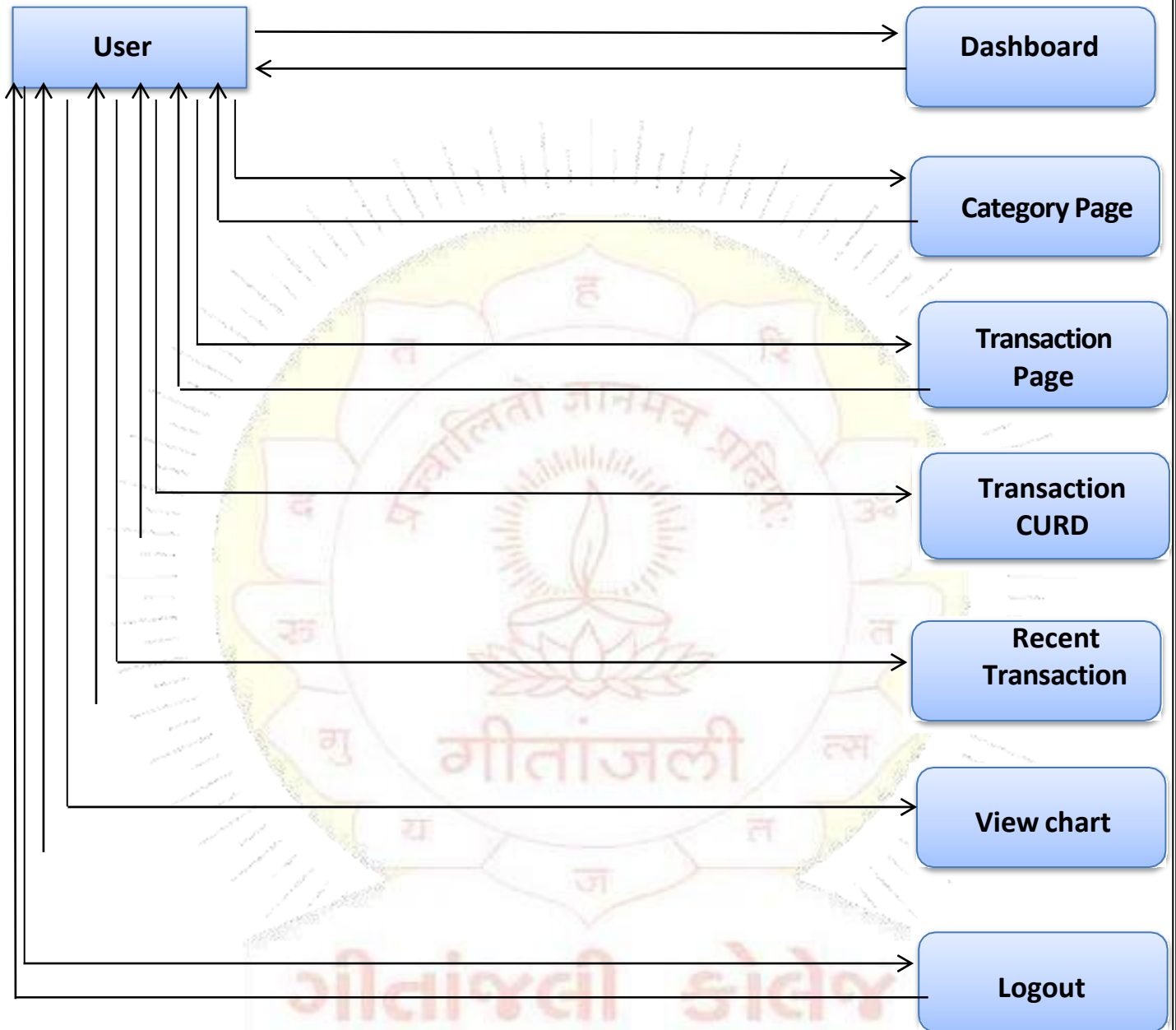
ER – Diagram

Expense Tracker

category

Login

add

delete

update

email

password

type

amount

icon

type

amount

icon

type

amount

icon
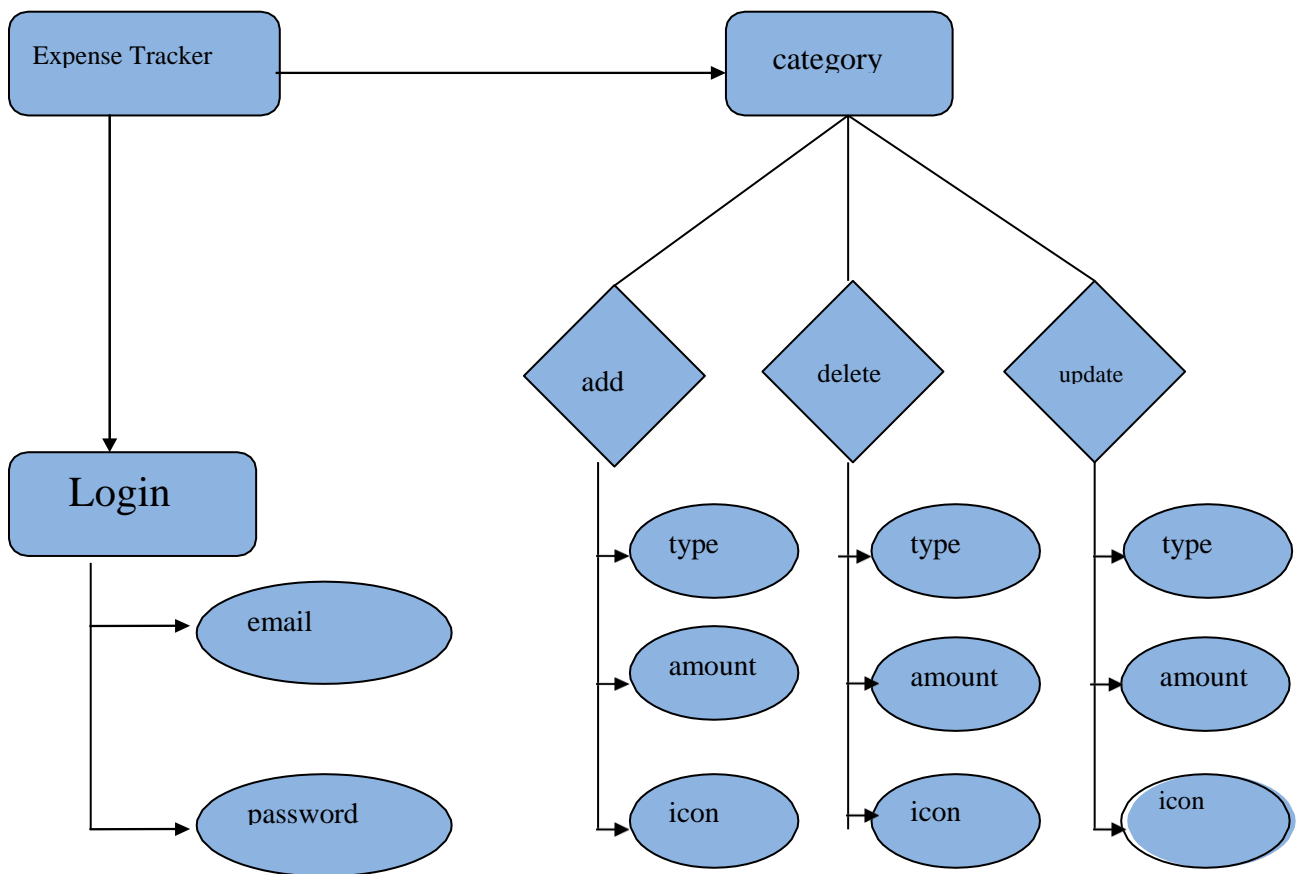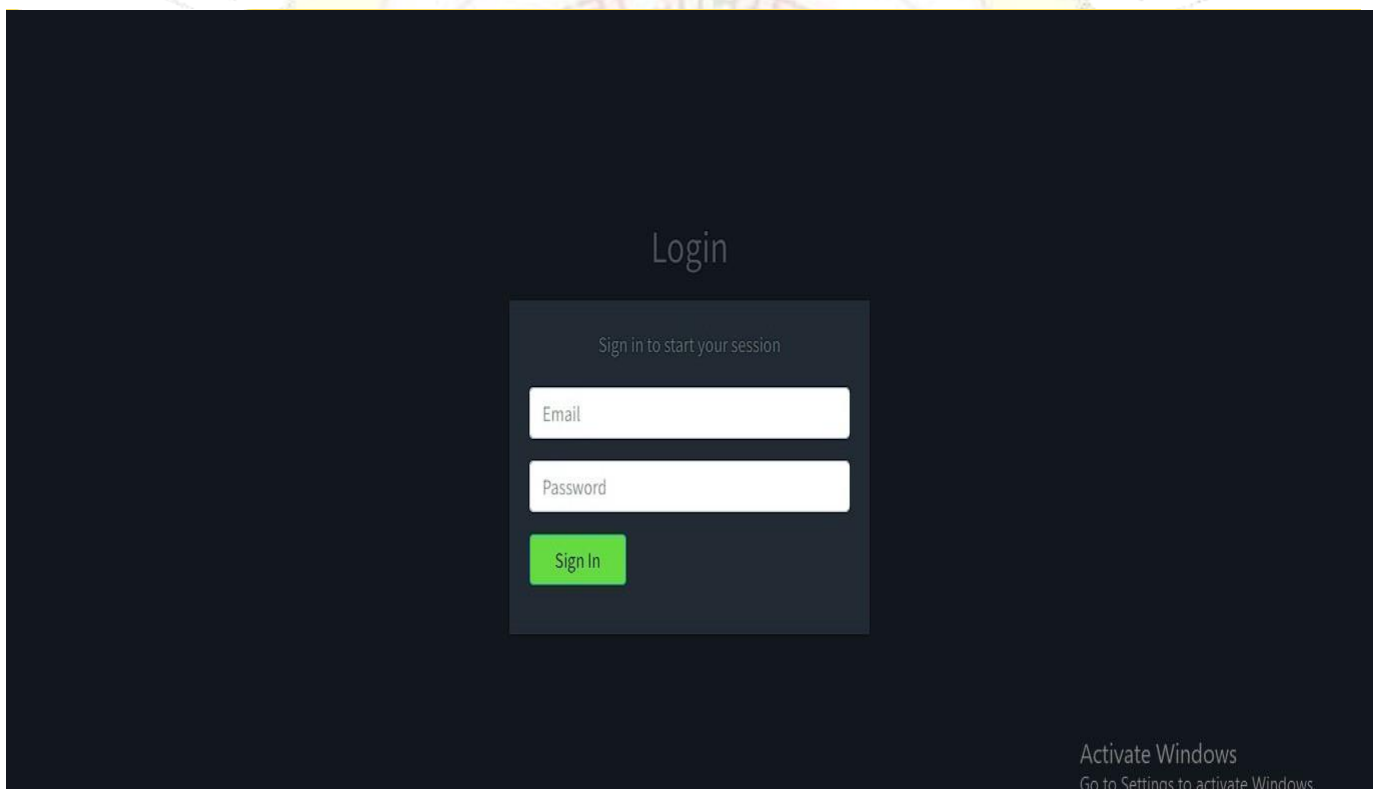
LAYOUT DESIGH

VISITOR

Page Name: Login

Description: This is the login page of my Expense Tracker project. In this page you can login if login credential match then redirect to dashboard

Expense Tracker

Page Name: Dashboard

Description: Welcome to the dashboard of my project. In this page you can see total Income total Expense and remaining amount
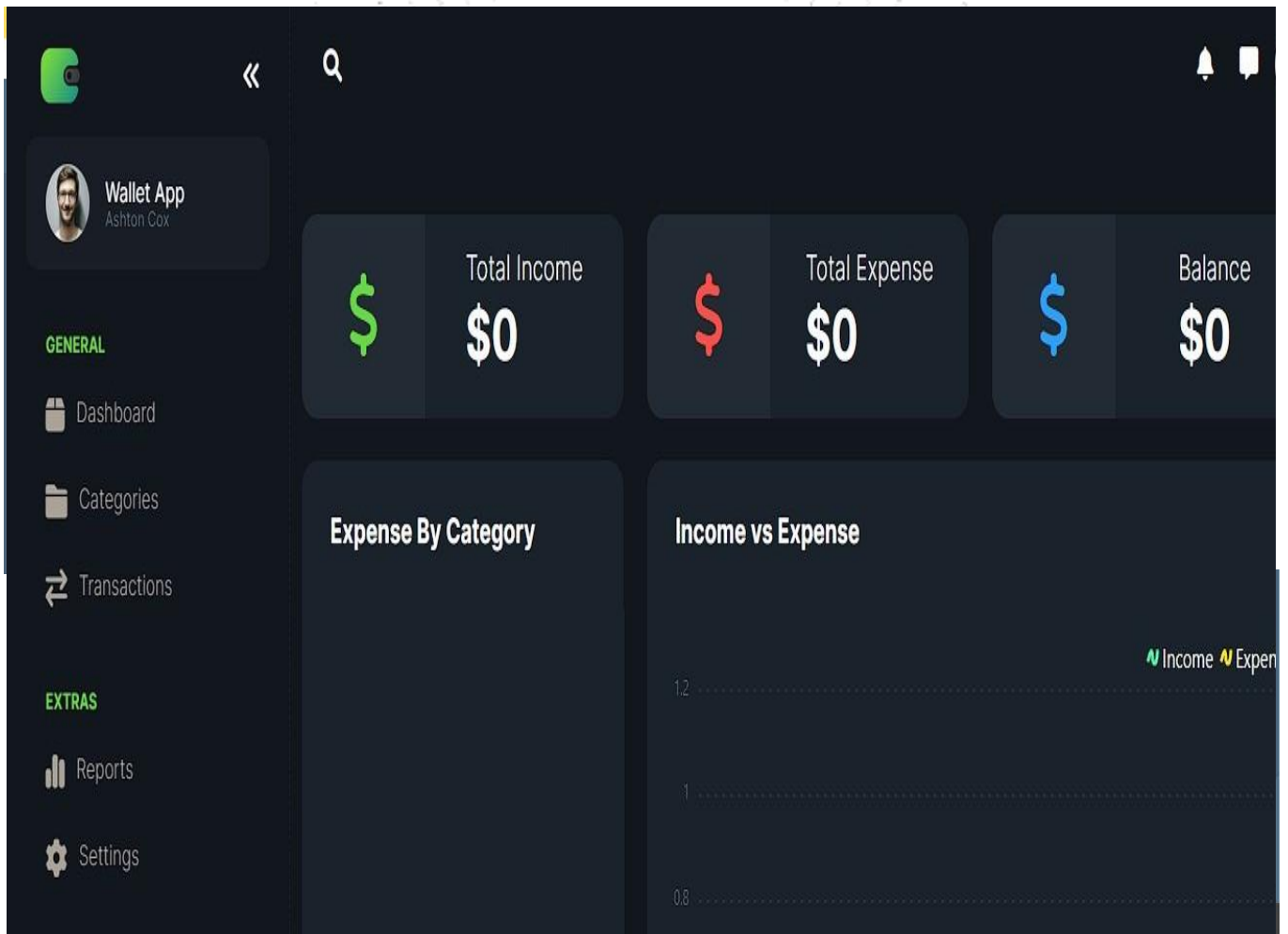
Expense Tracker

Page Name: Category page

Description: Welcome to the category page of my project. In this page you can see the category list. In this user can perform curd (create update read delete) operation
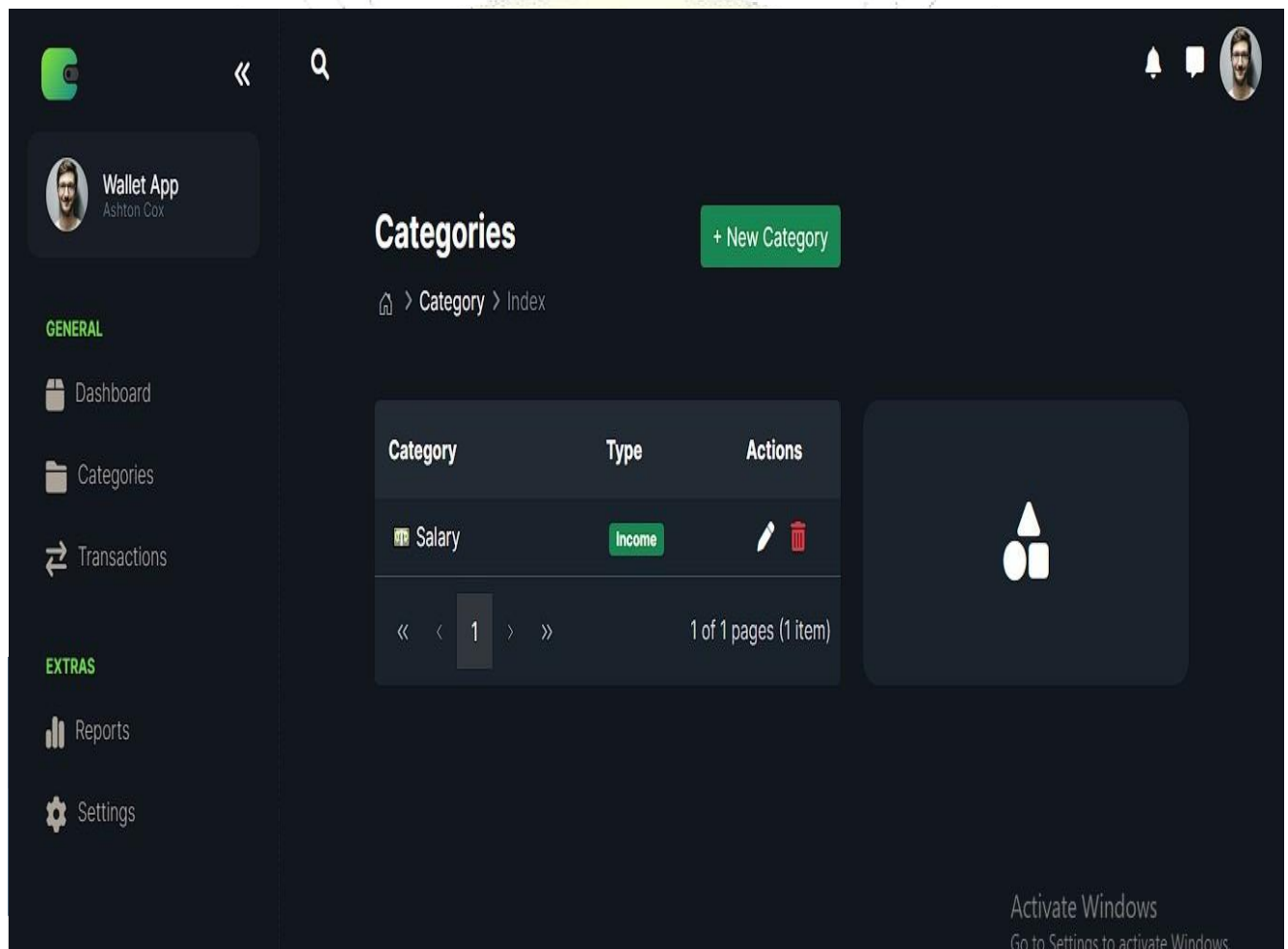
Expense Tracker

Page Name: Create category Page

Description: see user can create category according to there need like income or expense category I use ajax to switch form income or expense.
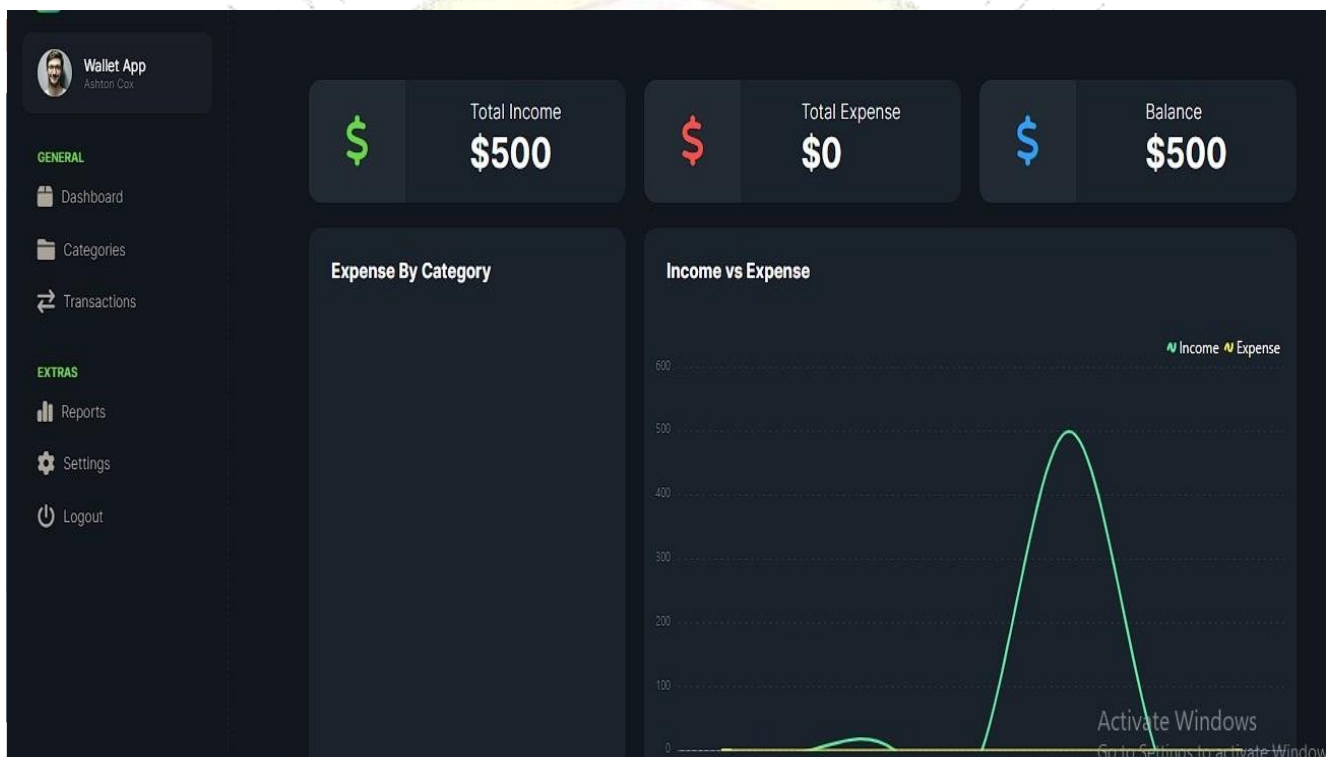
Expense Tracker

Page Name: Transaction page

Description: Welcome to the transaction page of my project. In this page you can see all transactions list in that list you can see all income and expense income(+) and expense (-) symbol
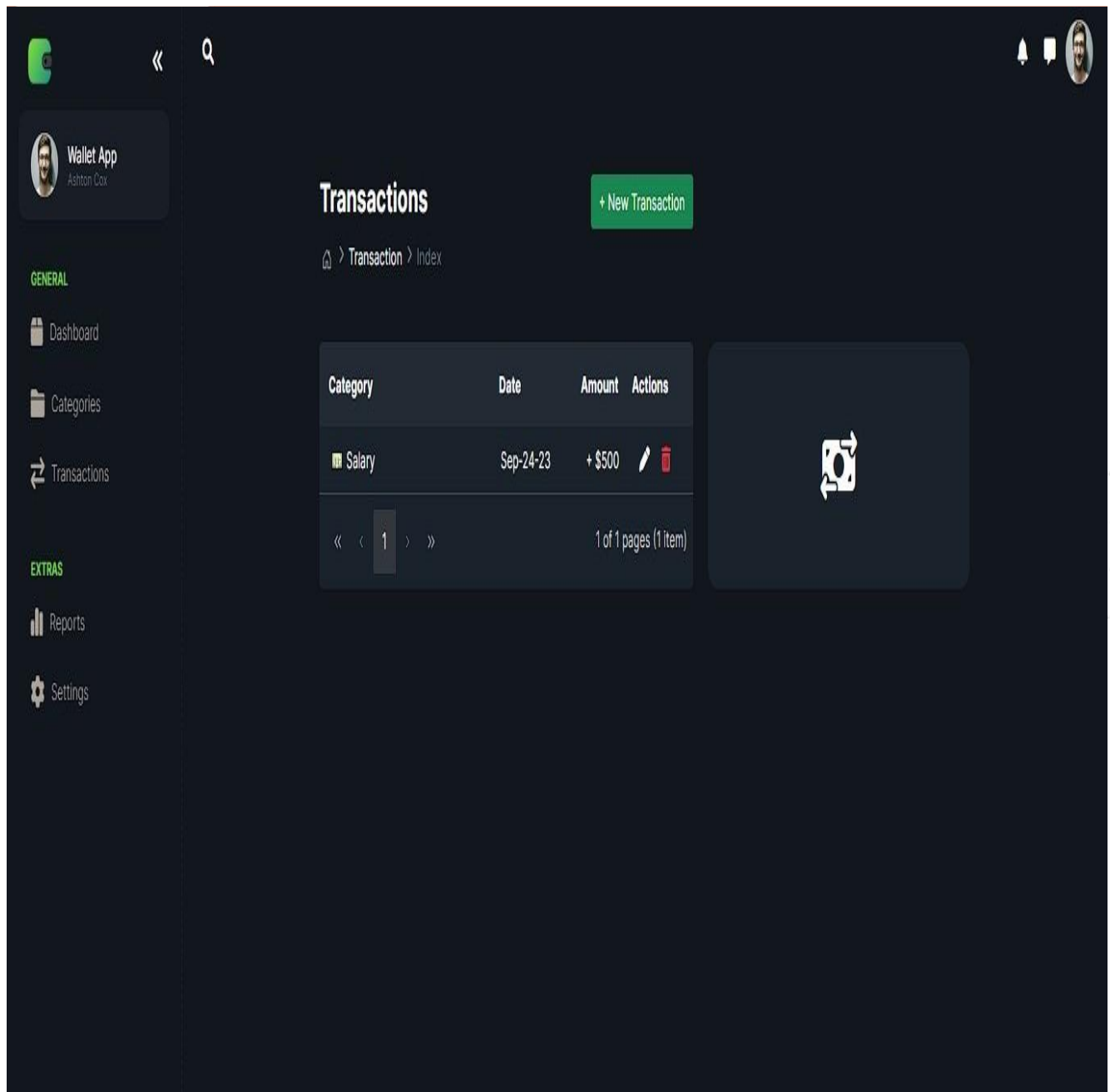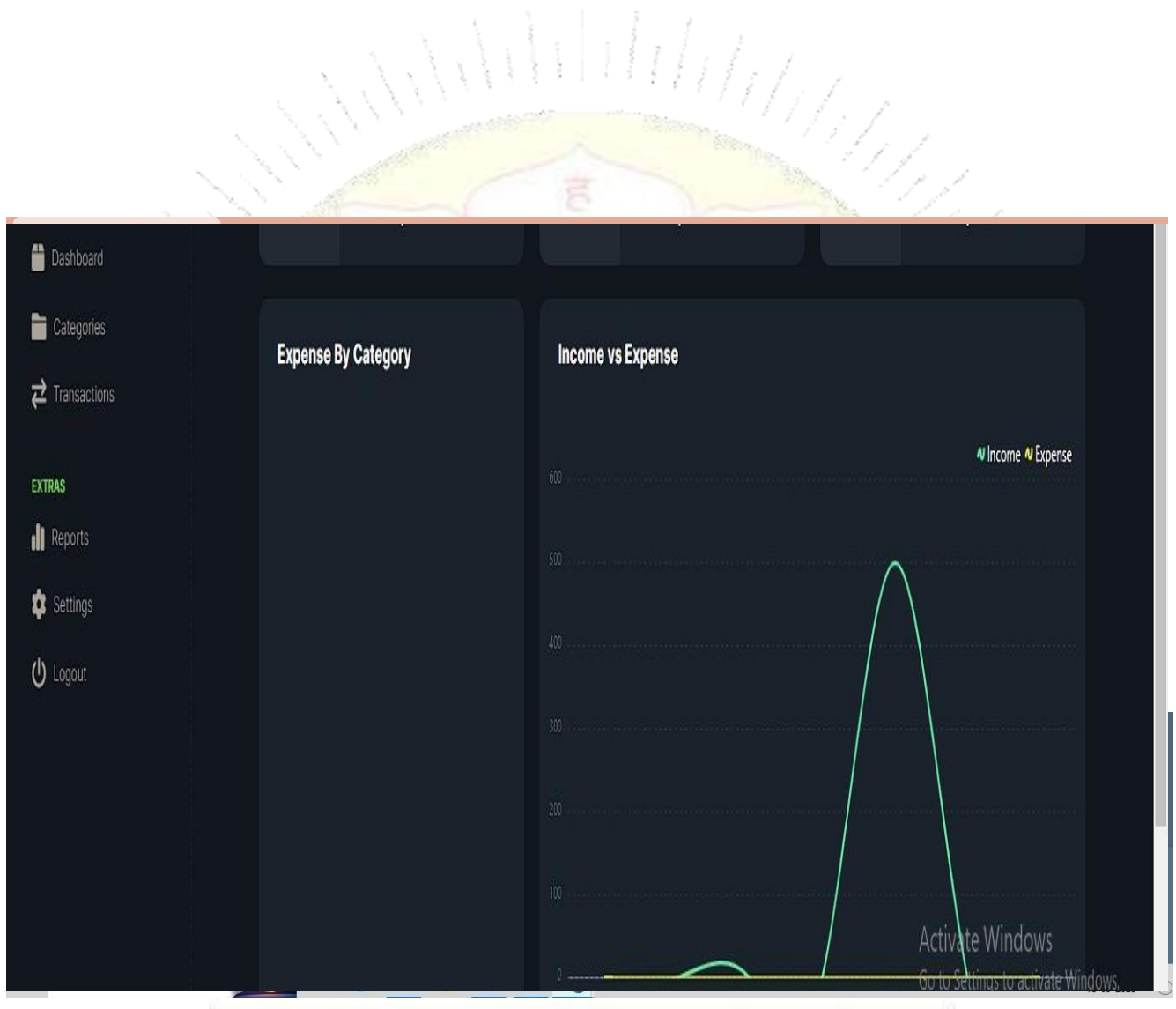
Expense Tracker

Page Name: Logout

Description: Welcome to the Logout page of my project. In this page you can logout user if forgot to logout then after 120 min auto session expire using identity

Expense Tracker

Page Name: Chart

Description: in this dashboard I use chart to compare both income and expense also I add filter month in future update

## **FUTURE REQUIREMRNTS OF PROJECT**

PDF report: in that project add PDF generate every month so user can save that pdf as hard copy,

add Savings module: so user can see monthly total savings and also set savings target if target complete then target checked etc

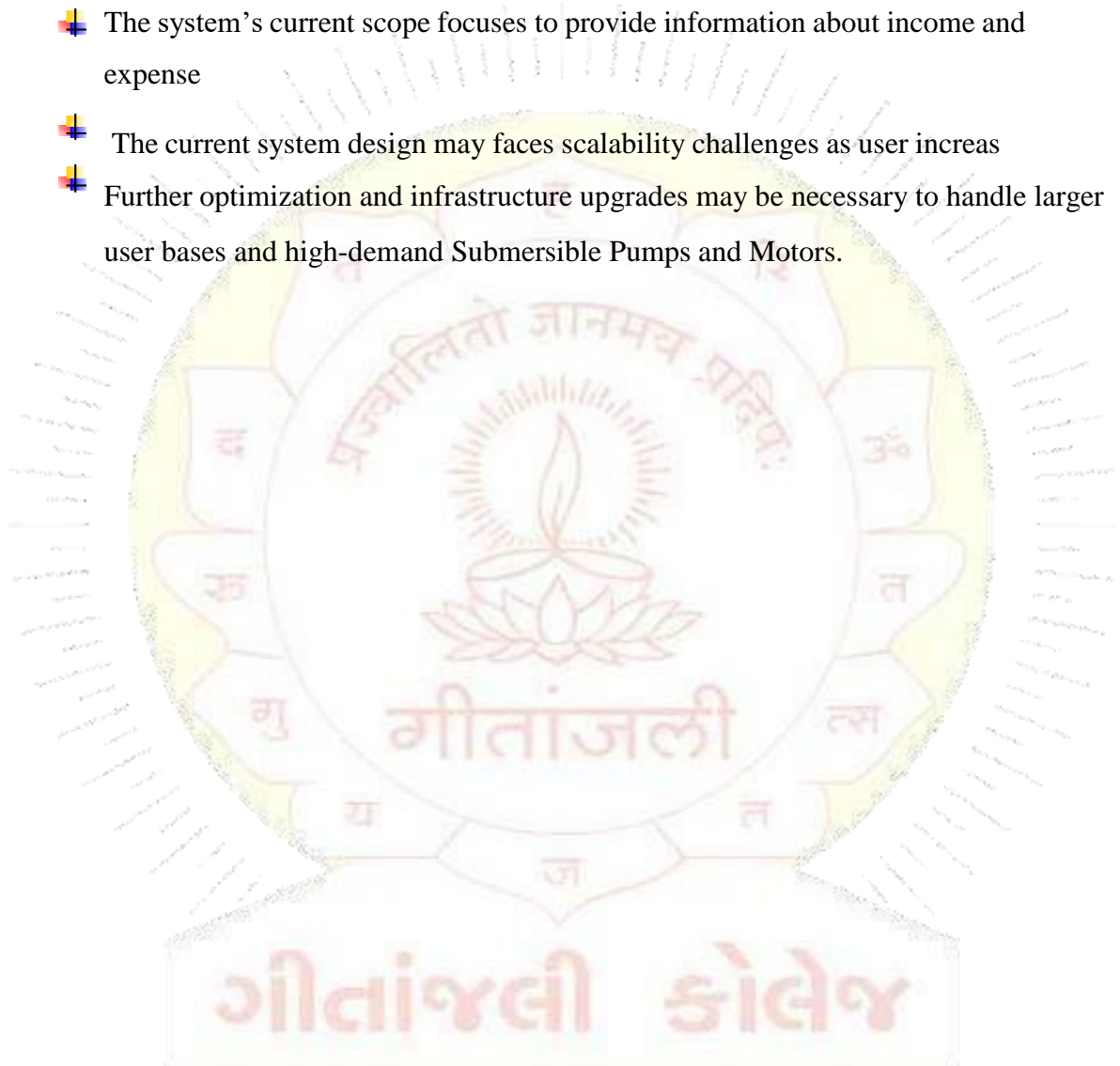**Account module**: account module like bill create sales order,purchase order , purchase indent etc

Mobile Apps: Develop mobile applications for Android and IOS platforms to make it convenient for users to monitor and control pumps on the go.

Add some tally module: convert ut Submersible Pumps and Motors.
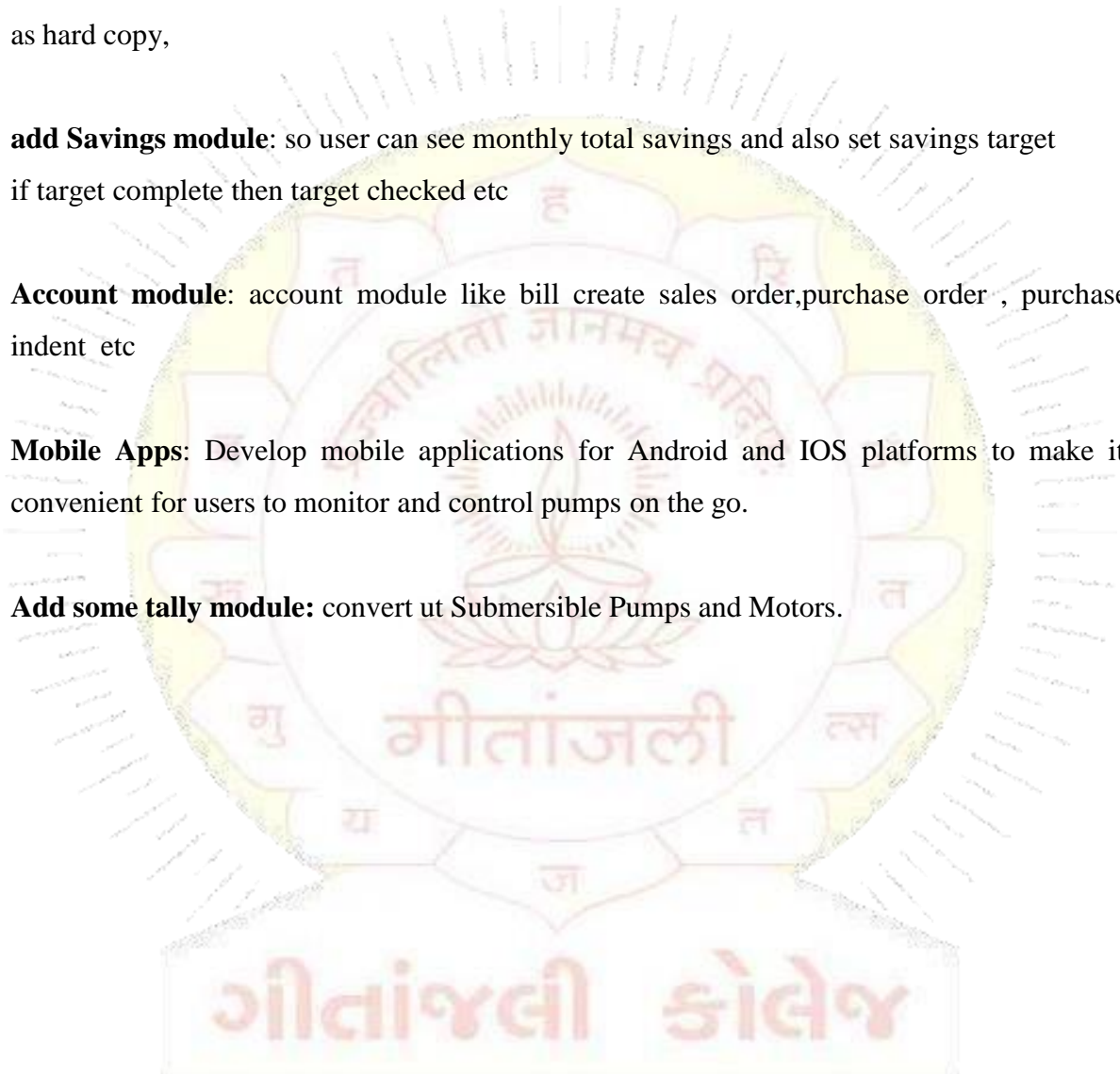
LIMITATION OF PROJECT

- The system currently can not support multi login.
- The system's current scope focuses to provide information about income and expense
- The current system design may faces scalability challenges as user increas
- Further optimization and infrastructure upgrades may be necessary to handle larger user bases and high-demand Submersible Pumps and Motors.

BIBLIOGRAPHY

Resources Used

Google : https://www.google.com/

Stack Overflow : https://stackoverflow.com/

ChatGPT by OpenAI : https://chat.openai.com/