

Mini Project On
Title
By
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Under the guidance of
Internal Supervisor

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Department of Master Of Computer Application
Sardar Patel Institute of Technology
Autonomous Institute Affiliated to Mumbai University
2022-23

CERTIFICATE OF APPROVAL

This is to certify that the following student

Shivam Balki

**has satisfactorily carried out work on the
project entitled**

“Task Manager and Expense Tracker”

**Towards the fulfilment of project, as laid down
by**

**Sardar Patel Institute of Technology
during year
2022-23.**

**Project Guide:
Prof. Harshil Kanankia**

PROJECT APPROVAL CERTIFICATE

This is to certify that the following students

Shivam Balki (2020510003) has successfully completed the

Project report on

“Task Manager and Expense Tracker”,

which is found to be satisfactory and is approved

at

SARDAR PATEL INSTITUTE OF TECHNOLOGY,
ANDHERI (W), MUMBAI

INTERNAL EXAMINER

EXTERNAL EXAMINER

HEAD OF DEPARTMENT

PRINCIPAL

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1 Introduction

1.1 Problem Definition

ToDo List App is a kind of app that generally used to maintain our day-to-day tasks or list everything that we have to do, with the most important tasks at the top of the list, and the least important tasks at the bottom. It is helpful in planning our daily schedules. We can add more tasks at any time and delete a task that is completed.

1.2 Objectives and Scope

1.2.1 Objectives

The IOS based application "TODO App"

The goal of this app is to help us become more aware of how we spend time in the process of doing those tasks and how productive that time is. It can help set some constraints on social media to reduce distraction and track the time we spend working on the todo items. When we have a better sense of the estimated time we'll need to spend on our tasks, along with the validated time spent on the items for reference or personal/team reviews, we are able to manage our daily routines more efficiently.

1.2.2 Scope

To-Do List project is an application specially built to keep track of errands or tasks that need to be done. This application will be like a task keeper where the user would be able to enter the tasks that they need to do. Once they are done with their tasks they can also remove them from the list. Let us see what is there in the application:

You can add the tasks that are to be done in a descriptive way. You will be able to add as many tasks as you have. Once the task is completed, you will be able to remove it by clicking on "Task Completed" button. Following are the user interface components that will be shown in our application-
There will be an add task button on the right top of the application There will be a button "Task Completed" for each task added, so you will be able to delete it. The tasks that will be added by the users are stored in the list view.

1.3 Existing System

Some of the disadvantages of existing system are as follows :

- Time consuming, Manual work
No proper system to track and store events in any application with enhanced security.
- Redundancy
Many times the details of the same event is taken multiple times causing redundancy. Same google forms are to made again and again. All this is very redundant and tiring.
- Loss of information
Many times task managers might miss some information regarding a particular company due to scattering of the information in various places.

1.4 Proposed System

A task management tool is used by an individual, team, or organization to help complete projects more efficiently by organizing and prioritizing related tasks.

A task management tool is used by an individual, team, or organization to complete projects efficiently by organizing and prioritizing related tasks. A task management tool is used by an individual, team, or organization to complete projects efficiently by organizing and prioritizing related tasks. Task management tools come in many forms, like basic spreadsheets or online project management applications. At every level, task management tools help people:

Work efficiently and reduce waste Stay organized Ensure teams and individuals are being utilized in the correct ways Meet deadlines Key Components of a Task Management Tool Task management tools address a general need to organize, prioritize and visualize work. Through analysis, you learn how to get things done in more effective ways.

At its most basic level, a task management tool is used to help individuals, teams or businesses stay organized. Part of being organized includes setting priorities for tasks, visualizing the progress of tasks as they pass through stages of completion and compiling analysis or reports to direct future tasks and workflows.

Prioritization A task board lets you organize your tasks by priority so you can ensure that the most important things are completed first. That being said, task management tools are easy to update. By prioritizing tasks we are able to focus on how work should be attacked, rather than jumping from one item to another without any direction.

Visualization Not only will visualizing tasks help you remember what you need to do, but it helps you better understand a project as a whole. This means task management tools are easily accessible by everyone. When every item is

laid out in a way that is easy to comprehend, dependencies become clear and collaboration is natural.

Analysis Task management tools always provide for some form of analysis, whether it is a formula that you have created or something built into the tool.

Some of the advantages of our system are as follows :

- User Friendly

It provides attractive interface to the user for navigation through a dynamic flow of placement process in the app.

The items of the application are already connected to each other using side navigation bar.

- Companies in a place

Users can view list of companies as per their categories or all together as per their requirement in a single list view.

Features: In this version of the ToDo list, the user will be getting four options: Create (add) a new task or adding a new ToDo in the ToDo List App. See all the tasks or View all the ToDos that were added to the app. Delete any ToDo from the list of ToDos. Exit from the app.

1.5 System Requirements

- Hardware Requirements on Server Side

Table 1.5.1: Hardware Requirements on Server Side

Processor	M1,M2 and Intel or Above
RAM	Minimum 4 GB RAM
Storage	Minimum 10 GB SD Disk Space for smooth run

- Hardware Requirements on Client Side

Table 1.5.2: Hardware Requirements on Client Side

Device	IOS Device with Touch Screen minimum 5" inch Display
Processor	IOS 14.0 or above
RAM	Minimum 2 GB RAM
Storage	Minimum 350 MB Storage Space

- Software Requirements on Server Side

Table 1.5.3: Software Requirements on Server Side

Operating System	OS Independent
Database	Firestore

- Software Requirements on Client Side

Table 1.5.3: Software Requirements on Client Side

Operating System	IOS Smartphone
Server	Not Required

2 Software Requirement Specification (SRS) and Design

2.1 Purpose

The purpose of our project is to Financial tracking can help you cut costs, prepare for taxes and identify growth opportunities. Financial tracking is essential to managing your business because if you don't have a clear idea of how much money is coming in and going out, you could end up with a shortfall when you need the money the most. That may prevent you from pursuing a new initiative or bringing on more staff or otherwise blunt your growth prospects. It could also spell your business's demise if you can't keep the lights on because your budgeting fell to the wayside.

2.2 Definition

ToDo List App is a kind of app that generally used to maintain our day-to-day tasks or list everything that we have to do, with the most important tasks at the top of the list, and the least important tasks at the bottom. It is helpful in planning our daily schedules.

2.3 Overall Description

2.3.1 Product Functions

The product function includes:

1. Authentication: Users are required to Sign-up and Log-in. Users will get a verification email for successful registration.
2. Profile: This will contain information regarding candidate.
3. Add Todo: This will contain information regarding candidate's marks.
4. Add Event: It is only viewed by Owner, to add updates about the Event.
5. View Todo: To view the Task as per the categories or view all of them together.

2.3.2 User Characteristics

There are two types of users:

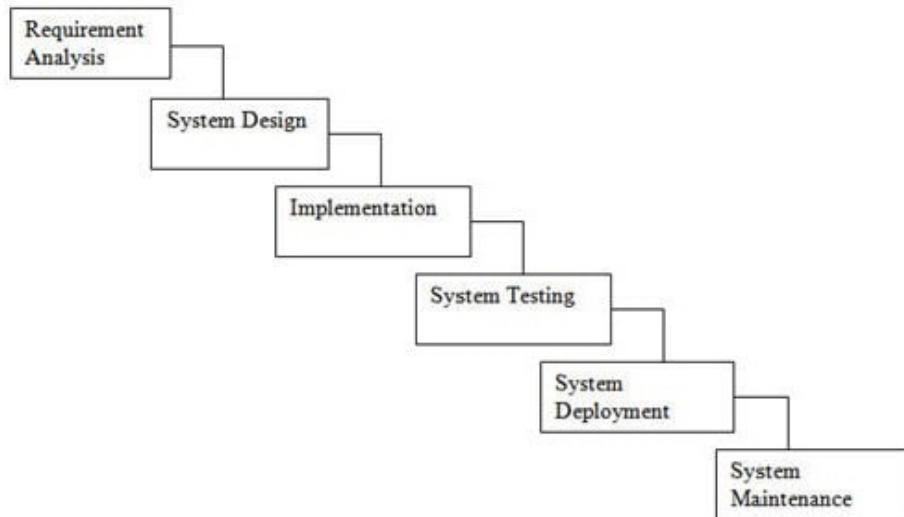
- Task Manager: TO manage and update task as per his schedule and priority.
- Finance Tracker: To track and keep record of budget via IExpense application .

3 Project Analysis and Design

3.1 Methodologies Adapted

In Waterfall model, very less customer interaction is involved during the development of the product. Once the product is ready then only it can be demonstrated to the end users.

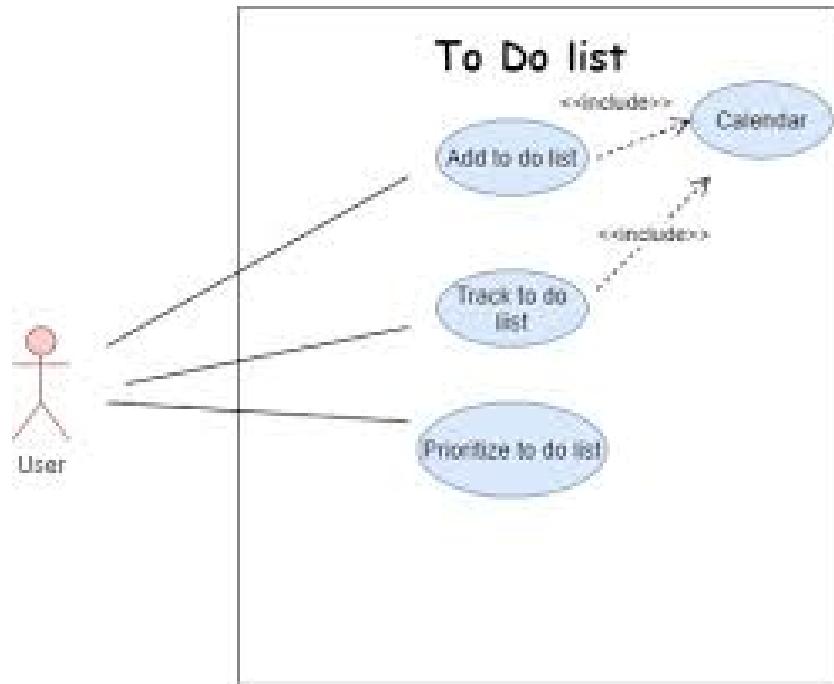
Once the product is developed and if any failure occurs then the cost of such issues is very high, because we need to update everything from document till the logic.



3.1.1: Diagrammatic Representation of Waterfall Model

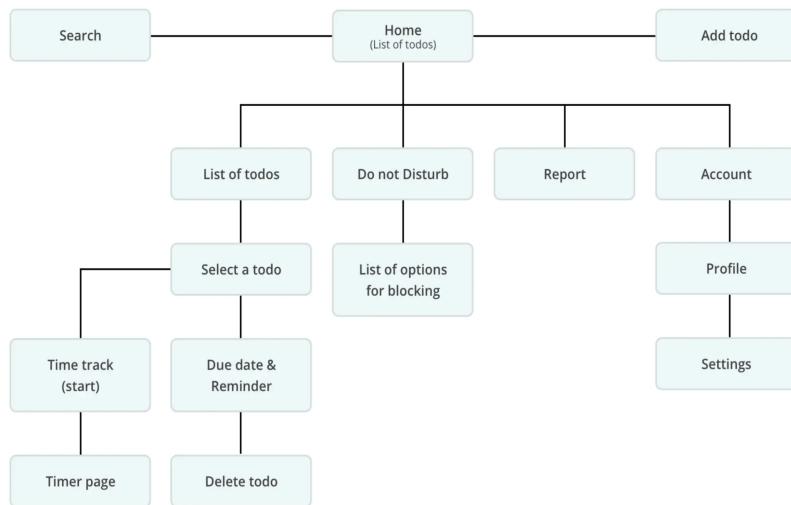
3.2 Modules

3.2.1 Activity diagram



3.2.1: Activity Diagram

3.2.2 Work Breakdown Structure

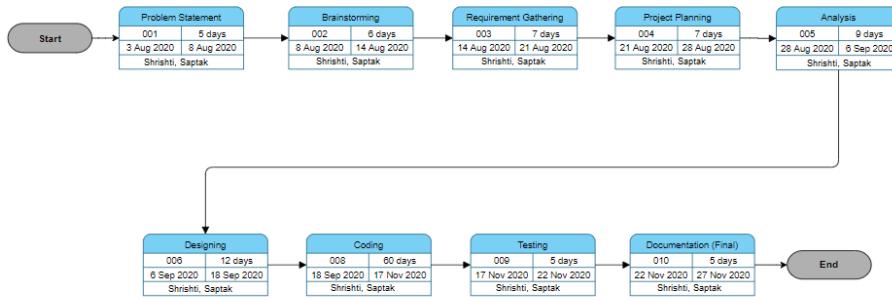


3.2.2: Work Breakdown Structure

TODO and Budget Tracker

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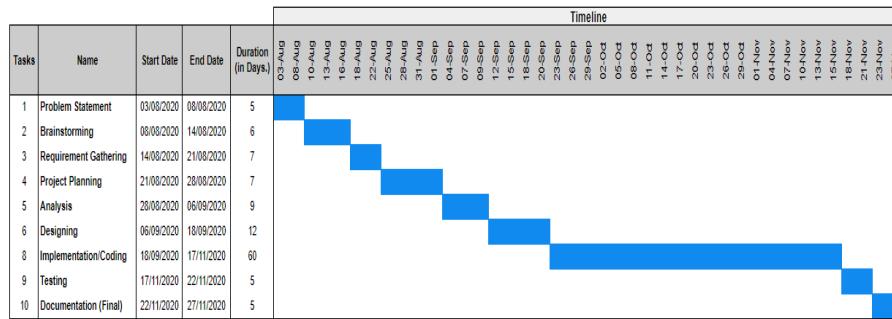
3.2.3 PERT Chart



3.2.3: PERT Chart

3.2.4 Gantt Chart

Mini- Project Gantt Chart



3.2.4: Gantt Chart

Use Cases:

1. Register
2. Login
3. Add Todo app
4. Update data
5. Delete Todo
6. Add to Calender

Table 4.2.1: Use Case Table - Todo

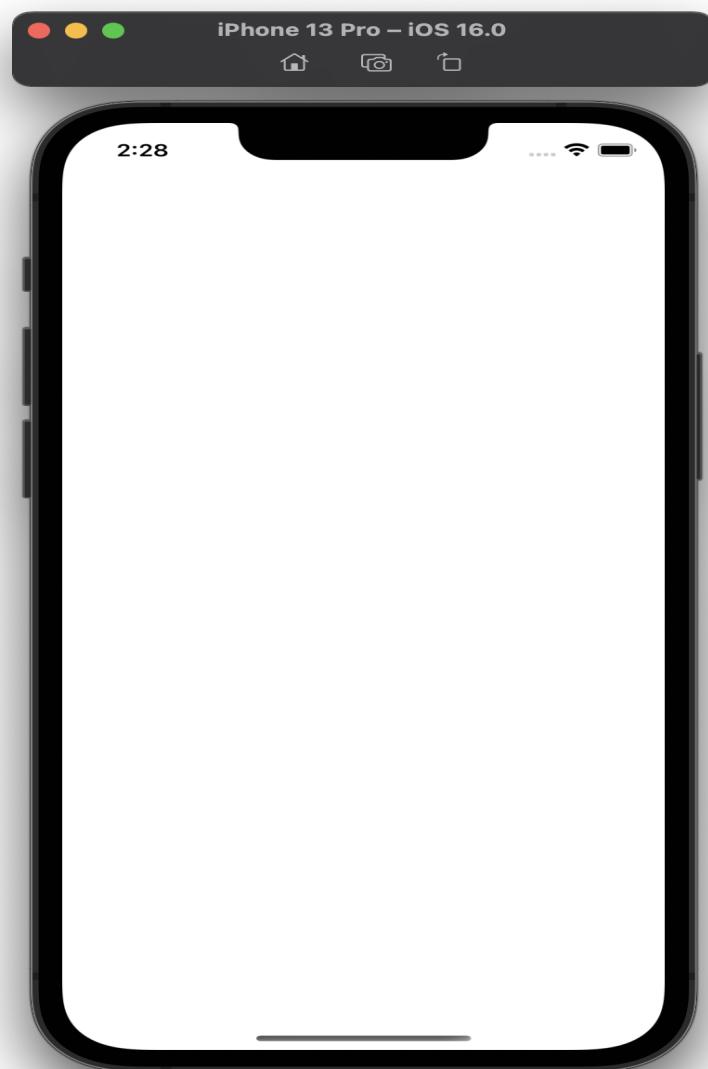
Use Case ID	1
Use Case Name	Register
User and Bud- get Track	
Pre-Condition	They must register themselves first
Post-Condition	User can login
Flow of events	Login,Register or Edit details and events on calender or dashboard

Table 4.2.2: Use Case Table - Login

Use Case ID	2
Use Case Name	Login
Actor	Data (finance)
Pre-Condition	They must register themselves first
Post-Condition	User can view its details and marks and view and upload Companies
Flow of events	Tracking or budgeting in the system

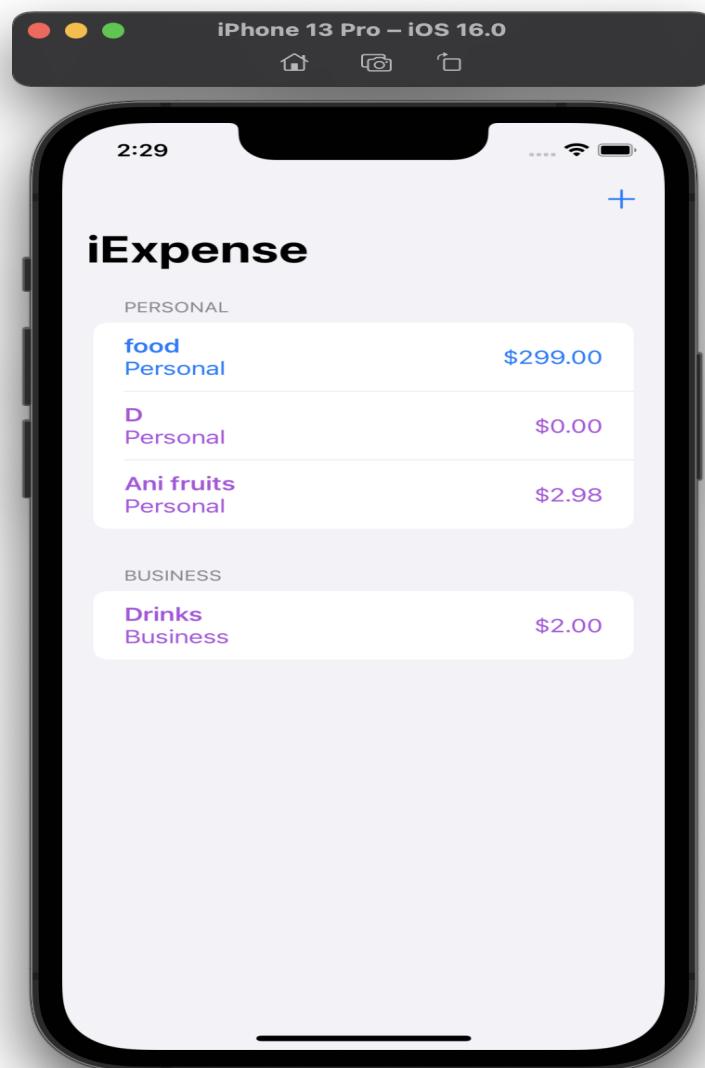
4 Project Implementation and Testing

4.1 Iphone 13 Pro



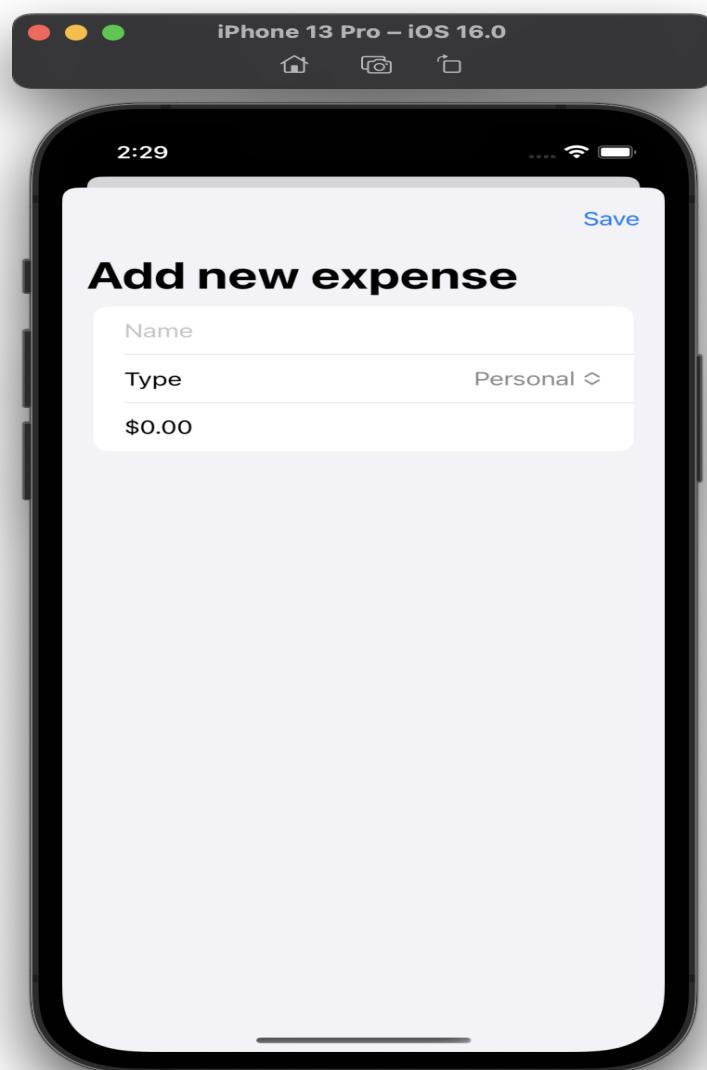
4.1.1: Iphone 13 Pro

4.2 Home - IExpense



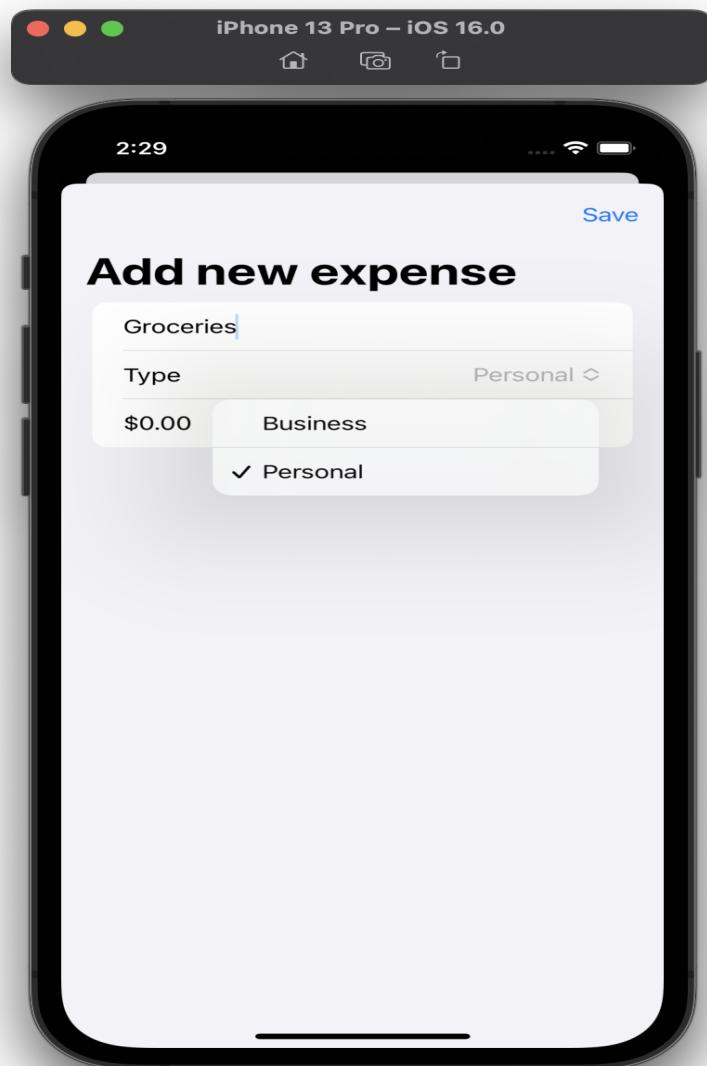
4.2.1: IExpense

4.3 New Expense



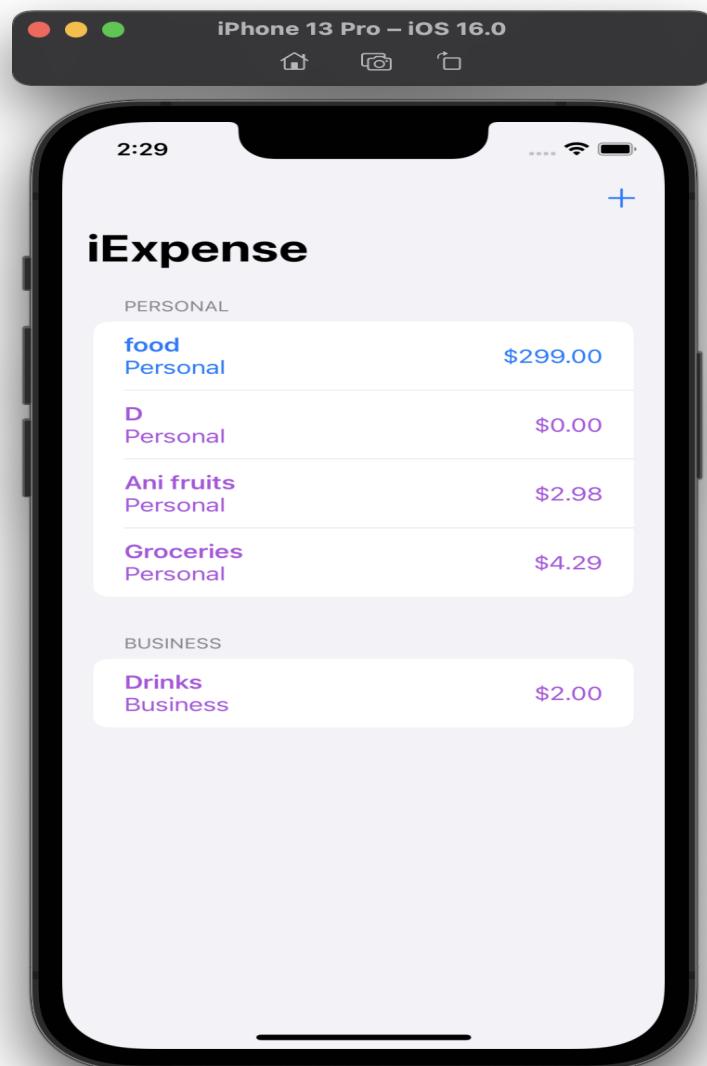
4.3.1: New Expense

4.4 Type of Expense



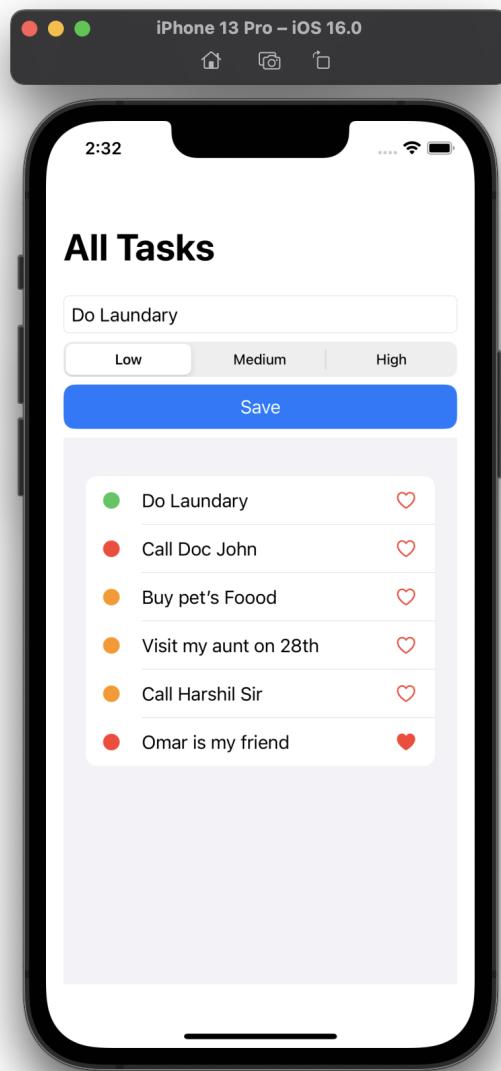
4.4.1: Type of Expense

4.5 Dashboard



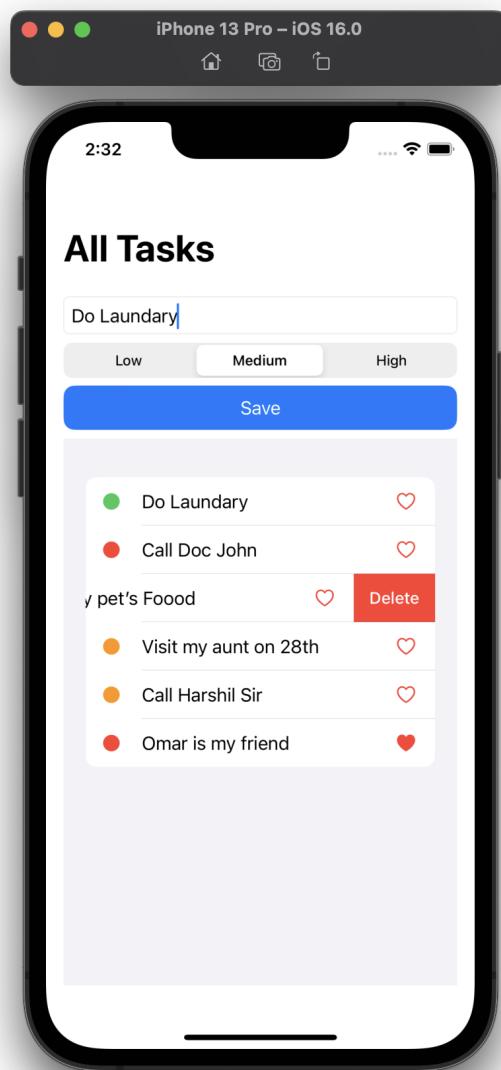
4.5.1: Dashboard

4.6 Add Event - TODO app



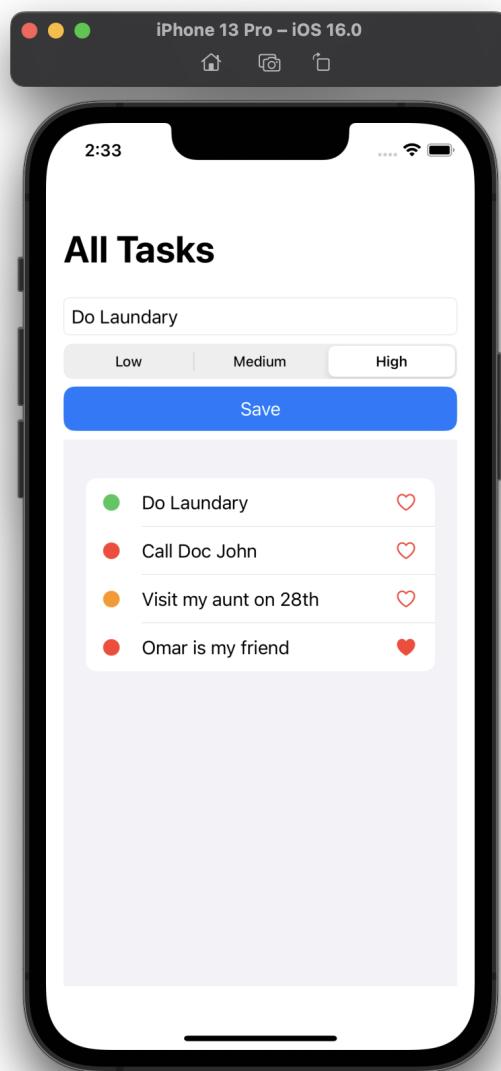
4.6.1: TODO app

4.7 Delete Task



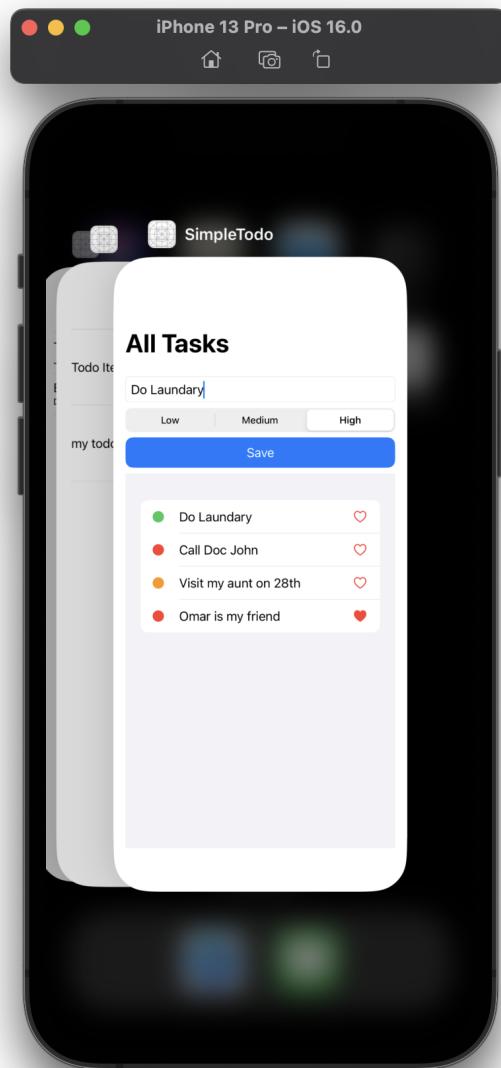
4.7.1: Delete Task

4.8 Prioritizing Tasks



4.8.1: Prioritizing Tasks

4.9 Recent View -IOS Device



4.9.1: Recent View -IOS Device

TODO and Budget Tracker

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4.10 Code 1

The screenshot shows the Xcode interface with the following details:

- Project Navigator:** Shows the project structure under "Expense". The "ExpenseApp" target is selected, displaying its files: ContentView, Expenses, ExpensesItem, ExpensesList, AddView, and Assets.
- Editor:** Displays the `ContentView.swift` file content:

```
1 //  
2 // iExpenseApp.swift  
3 // iExpense  
4 // Shivan Balki  
5 // Created by Shivan Balki.  
6 //  
7  
8 import SwiftUI  
9  
10 @main  
11 struct iExpenseApp: App {  
12     var body: some Scene {  
13         WindowGroup {  
14             ContentView()  
15         }  
16     }  
17 }
```
- Log Navigator:** Shows three log entries related to keyboard visibility:

```
2022-12-19 02:29:34.014361+0530 iExpense[37469:14245367] Can't find keyplane that supports type 8 for keyboard  
iPhone-Simplified. Using type 1 instead.  
27108 PortraitIphone iPhone-Simplified Default  
2022-12-19 02:30:02.231225+0530 iExpense[37469:14245367] Can't find keyplane that supports type 8 for keyboard  
UIKeyboardTypeDefault that is visible in visible window  
requires afterScreenUpdates:YES.
```
- Bottom Bar:** Contains filters for "All Output" and "Filter" buttons.

4.11 Code 2

4.12 Code 3

The screenshot shows the Xcode interface with the following details:

- Project Structure:** The left sidebar shows the project structure under "iExpense".
- Code Editor:** The main editor area contains the `AddView` code. A specific line of code is highlighted in blue: `Picker("Type", selection: $type) { ForEach(types, id: \.self) { Text($0) }`.
- Preview Area:** To the right of the code editor is a preview of the iOS simulator. The screen displays the "Add new expense" form with fields for "Name" (placeholder "Personal"), "Type" (dropdown menu), and "Amount" (\$0.00). A "Save" button is at the top right.
- Log Output:** At the bottom of the Xcode window, there is a log output window showing the following message:

```

2022-12-19 02:29:34.816341+0530 iExpense[37449:42465367] Can't find keyplane
that supports type 8 for keyboard iPhone-PortraitChoco-DecimalPad; using
27180_PortraitChoco_iPhone-SinglePad_Default
2022-12-19 02:29:34.81645407+0530 iExpense[37449:42465367] [Snapshotting]
Snapshotting a view (0x1318fc00, UIKitKeyboardImpl) that is not in a
visible window requires afterScreenUpdates:YES.

```

5 Test Cases

Table 6.1: Test Case - Login and Register

Test Case ID	Test Case Name	Test Data	Expected Output	Actual Output	Result
1	User enter user id and password	Enters the correct user id and password	Log in Successful	Home Page	Pass
2	User enter user id and password	Enters the user id and password	Prompt error	Prompt error	Pass
3	User enter user id and password	Valid user id and password which doesn't exist in Database	Registered Successfully	Login Page	Pass
4	User enter user id and password	Invalid user id and password which contains in Database	Prompt error	Prompt error	Pass

Table 6.2: Test Case - Others

Test Case ID	Test Case Name	Test Data	Expected Output	Actual Output	Result
1	User enters Task	Invalid Task Details	Prompt Message showing error	Successful Updated	Fail
2	User enters valid Task	Valid Task Details	Task Updated successful	Profile Updated successful	Pass

6 Limitations

- Integration with third party API
- It does not have a feature to connect with Developer directly for queries and support.
- PDFs report cannot be exported
- Graphical representation of budget statistics are not shown.

7 Future Enhancements

- Currency Change
- Graph metrics
- Lender Activity
- UI changes
- Reminders for Early Payments.

8 User Manual

Part 1 – Register

Upon opening the application, user will be greeted with the registration screen. If the user has no account, user can click on register and register self.

After verification of user id, User's account will be saved in our database.

The user can now proceed to login.

Part 2 – Login

User needs to enter email first and then password. If there is an active internet connection, user can proceed to login.

Part 3 – Profile

User can access/add/update personal details (eg. Name, Contact No.).

User can update this details anytime.

Part 4 – Todo Budget Section

User can access and add Task and entries (eg. to feed the dog,reminder to call someone etc). User can update this details once entered.

Part 5 – Todo Updates

User can view and edit their tasks once created and then delete when completed with satisfaction.

9 Bibliography

9.1 Web References

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- [2.] <https://documentation.platformos.com/get-started/todo-app/build-todo-list-app>
- [3.] <https://https://todoist.com/features>
- [4.] <https://stackoverflow.com/>
- [5.] <https://www.draw.io/>
- [6.] <https://www.geeksforgeeks.org/>