OPSC7311 PART 1 PLANNING AND DESIGN

Darius Dylan Govender, Jordan Farrell, Jaden Perumal, Cael Botha-Richards

ST10144906, ST10069637, ST10204523, ST10108175

Teams

- Darius Dylan Govender (ST10144906)
- Jordan Farrell (ST10069637)
- Jaden Perumal (ST10204523)
- Cael Botha-Richards (ST10108175)

Planning and Design

Introduction

This is the design document of the Time Flare. Time Flare is a time tracking application built on the android operating system that helps an individual better manage their time and tasks. This document will outline the features, requirements, user interface design and the project plan of Time Flare. Time Flare will be designed to help users ignite their productivity.

Overview

Time Flare is a cutting-edge time tracking application designed to change the way individuals and teams manage their time. Combining user-friendly design with the basic requirements of any time tracking app as well as the innovative features. These include the use of gamification, third party logins, sorting, and filtering data, as well as it being a free plan. Time Flare offers a seamless and intuitive experience for tracking work hours and optimizing productivity. Whether you're a freelancer, entrepreneur, or part of a large organization, Time Flare caters to your time management needs with a blend of advanced functionalities and essential features found in traditional time tracking apps. It’s time to ignite your productivity!

Icons:

List of requirements

- Login and Registration:
    - Login Feature: Implement a secure login mechanism that allows users to access their accounts. Use authentication methods like email/password,

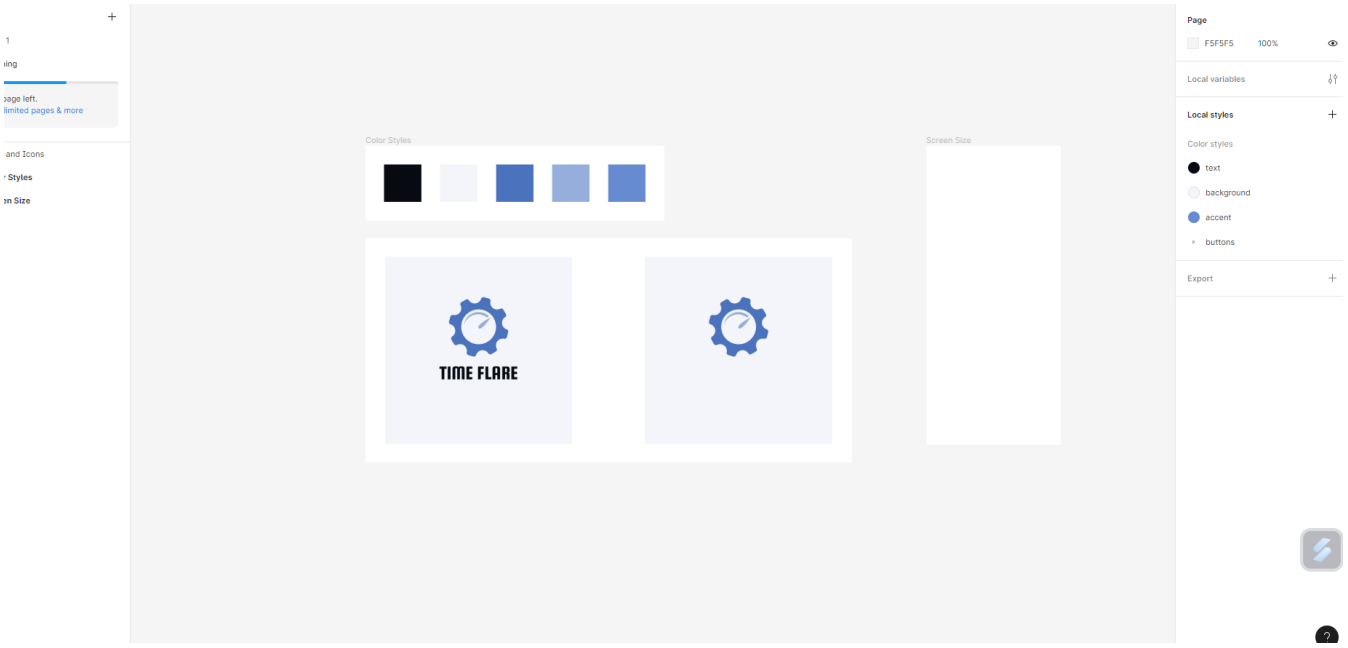
social logins (e.g., Google, Outlook), or biometrics (fingerprint or face recognition).
    - Registration: Enable new users to create accounts by providing necessary details (e.g., email, password, username). Validate user input and handle error cases.
- Projects:
    - Project Management: Allow users to create, edit, and manage projects. Each project could represent a specific task, assignment, or activity.
    - Project Details: Capture essential project information, such as project name, description, start date, end date, and associated team members (if applicable).
- Timesheet (Entries):
    - Time Tracking: Design a user-friendly interface for users to log their work hours. Users should be able to record start and end times for specific tasks or projects.
    - Task Descriptions: Include a field where users can describe the work, they performed during a given time entry.
- Daily Goals:
    - Goal Setting: Allow users to set daily productivity goals. These goals could be related to the number of hours worked, specific tasks completed, or other productivity metrics.
    - Progress Tracking: Display users' progress toward their daily goals. Consider visual indicators or notifications to motivate users.
- Reports:
    - Time-Based Reports:
        - Generate reports based on a selected period (e.g., daily, weekly, monthly). Users should be able to view their time entries over specific time ranges.
        - Include details like total hours worked, tasks completed, and any deviations from daily goals.
    - Category-Based Reports:
        - Calculate the total number of hours spent on each category (e.g., project, task type, client).
        - Present this data in an organized format (e.g., table) for easy reference.
    - Graphical Representation:
        - Create visual graphs (e.g., bar charts, line charts) to illustrate time distribution. Users can quickly grasp patterns and trends.
        - Show the total hours worked per day or per category.

- Gamification ensures user engagement by incorporating streak-based features. Users interact with Time Flare daily, contributing to activities for at least 10 minutes. Successful streaks motivate continued app usage. Missed days reset the streak to zero.
    - Activity Streaks: Encourage users to interact with Time Flare daily.
    - 10-Minute Rule: Users contribute to at least one activity for a minimum of 10 minutes.
    - Streak Motivation: Successful streaks motivate consistent app usage.
    - Visual Progress: Users see their streaks visually, reinforcing accountability.

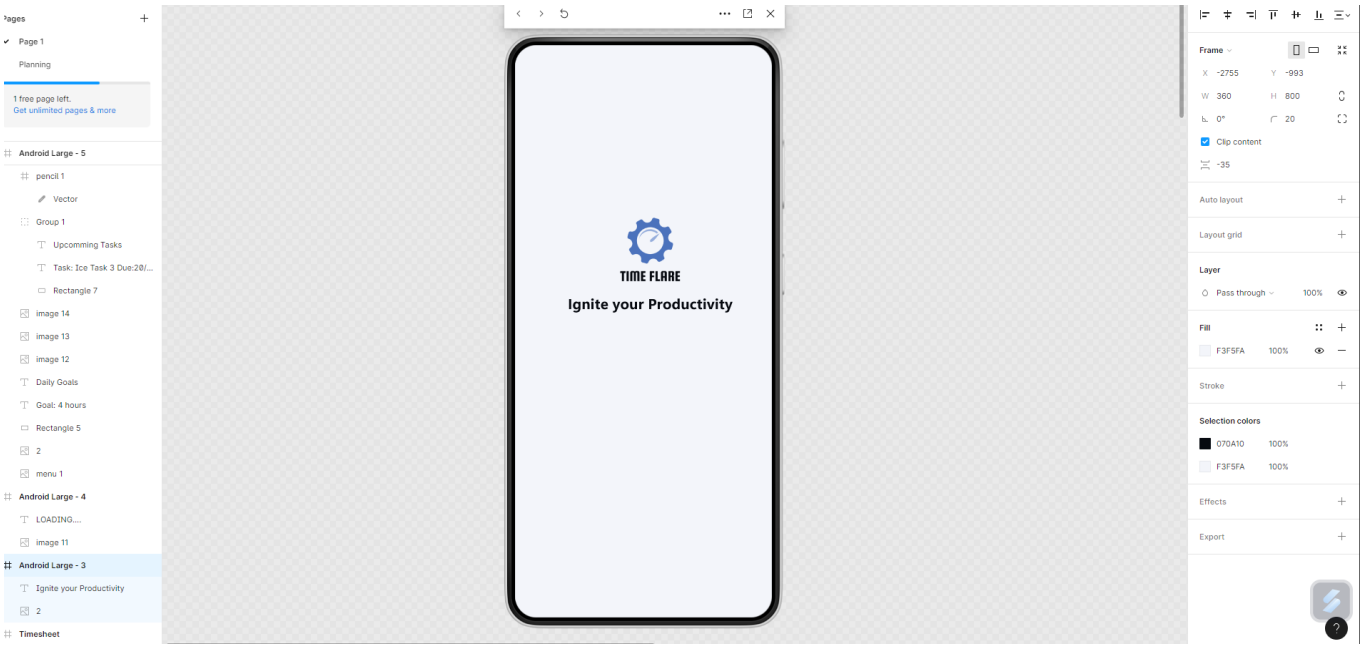
- Third party login - The utilisation of a third-party login feature is one that promotes easier accessibility into the use of an application. Alongside having the opportunity to create their own user account, with specified login credentials, a user will also have the option to use a Google Account for the login process, allowing the user to bypass the process of creating an account themselves. This will encourage users that are hesitant about the account creation process, provide a more efficient user experience and provides improved security through the already highly developed Google authentication processes *(Synopsys, 2016)*. This feature will be deployed into the Time Flare app using the Google supported Firebase authentication library, which ensures less development resources are consumed whilst still reaching the required ability to allow for third-party logins through a trusted source *(Firebase, 2023)*.

- Scheduling – scheduling is a useful feature that allows users to allocate time aside for upcoming tasks or recurring tasks. This would allow the user to plan out their time in advance.
- Calendar – the calendar feature in Clockify is used to “control of and optimize their work schedules by blocking off specific times for work” (Holznienkemper, 2023). It is a simple way to allocate time aside in the working day for a certain task. In the Time Flare app, the calendar will be used to view the scheduled upcoming tasks and the details of these tasks.
- Dashboard – all three apps make use of a dashboard. The dashboard acts as the main page for navigation of the application.

User interface design



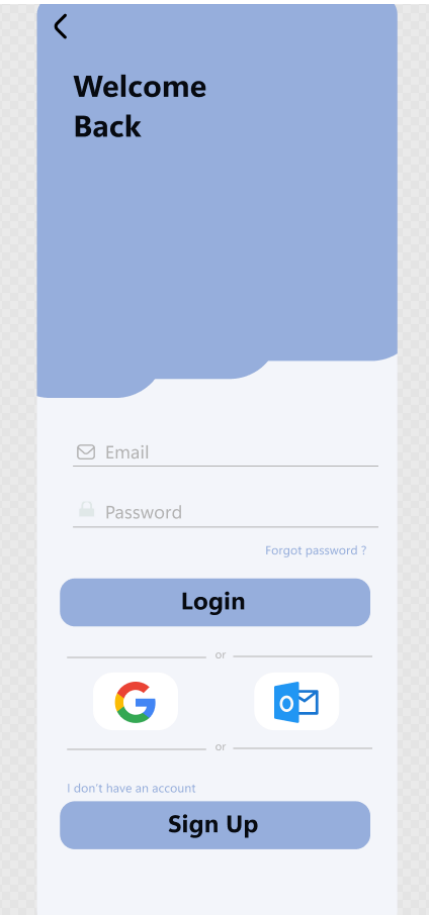
This screen shows the planning stage of the Time application. In this screen we created the colour styles, the logo, the icon and decide on the device type (screen size).



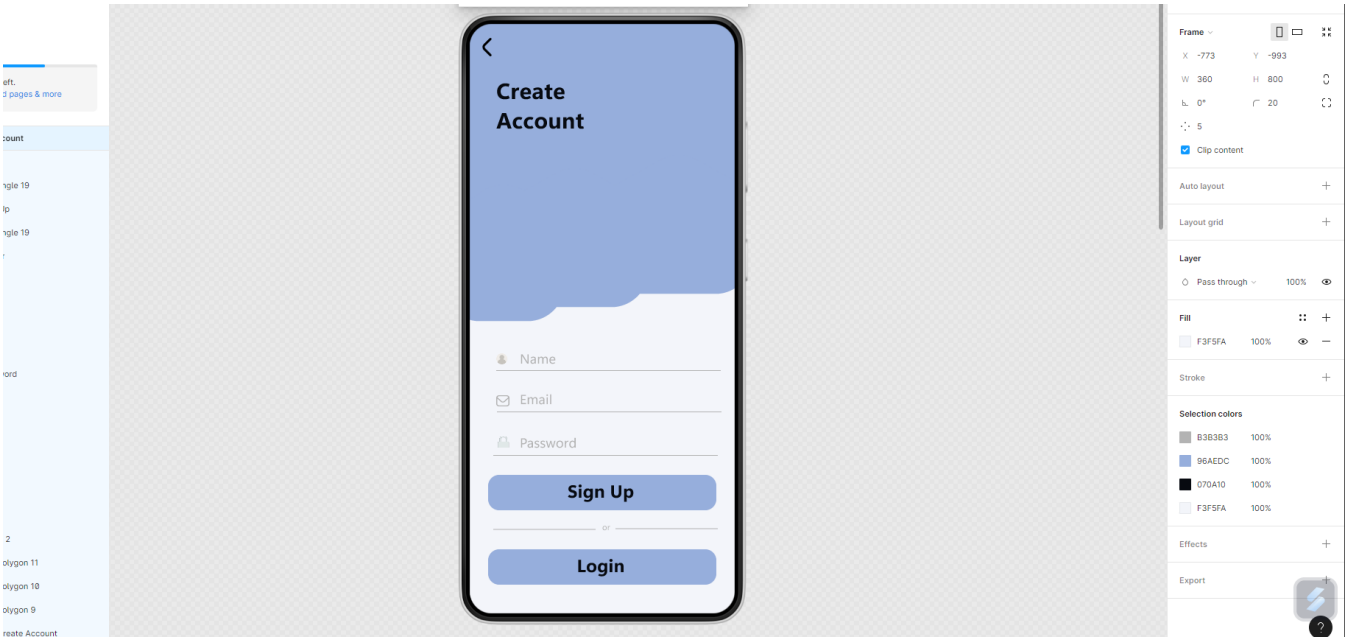
This is the Opening screen. It greets the user with the applications name, the logo, and the slogan, welcoming the user to the application.

The Loading Screen serves as a delay to allow the application to fully load the relevant data.

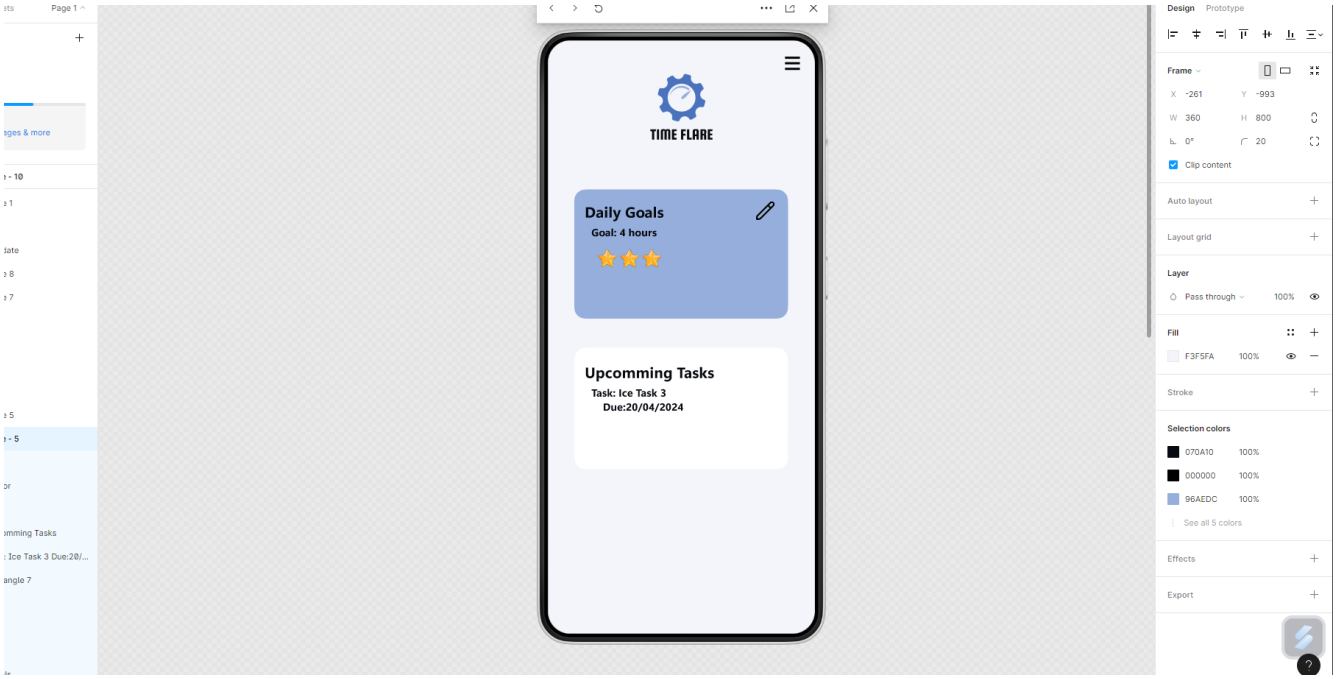
Once the relevant data has loaded if the user is not logged in, they are redirected to this screen. The user must click on the ‘Get started’ to move forward in the application.



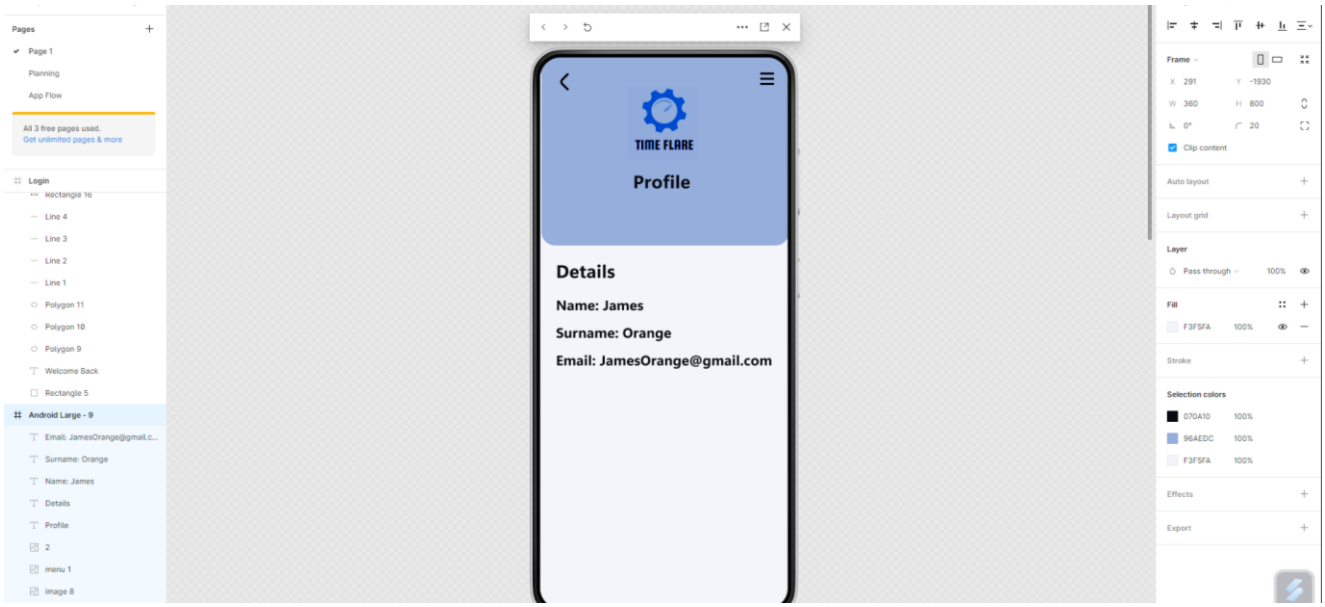
This screen is used as the login screen. The user can either log in using their app account, google account or outlook account. If they don't have an account, they can click sign up to create an account.



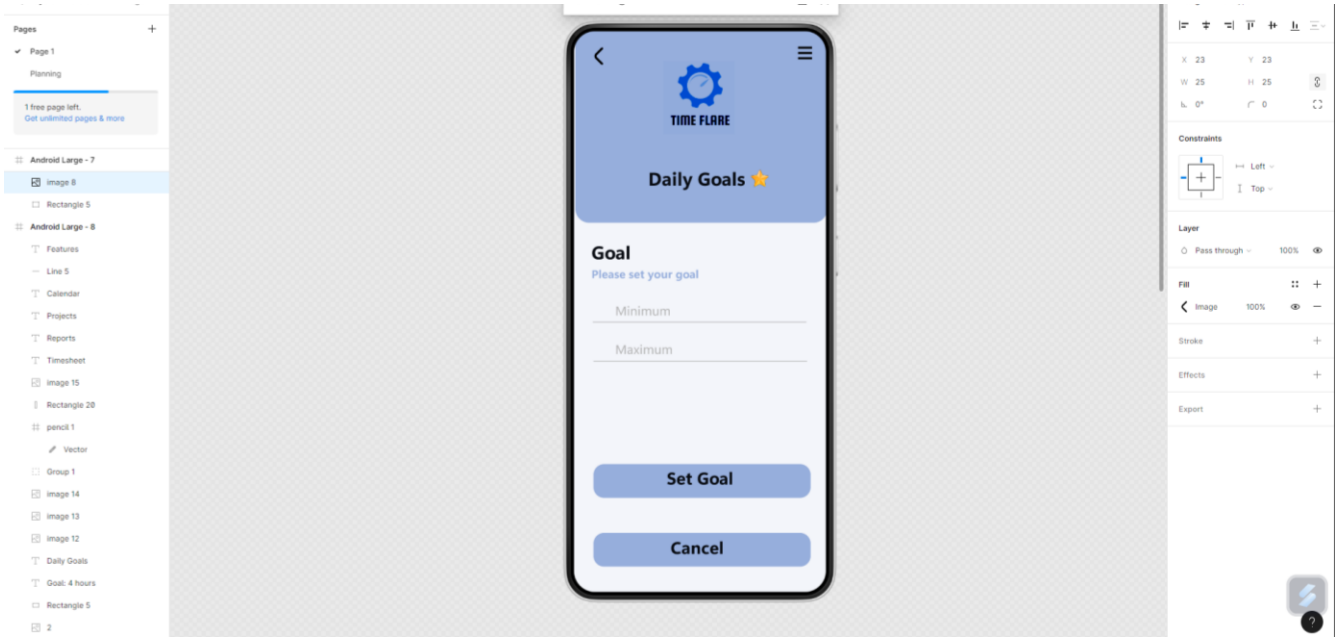
This screen is used as the register screen. It allows the user to register a new account, if they already have an account they can click 'Login'. If they don't, they can enter the valid details and then click 'Sign Up' to create their new account.



This screen is the main page. From this page the user can access all the features offered by the app. The main page displays the users daily goal streak and the upcoming tasks of the user.



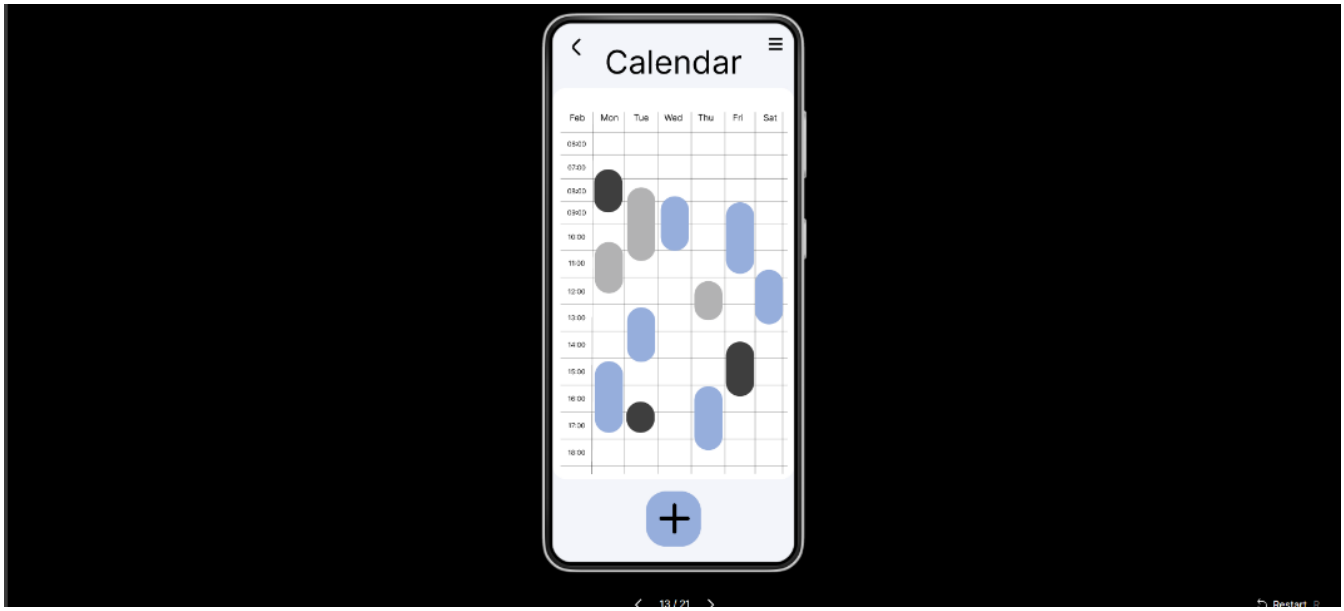
This screen shows the user all the information on their profile.



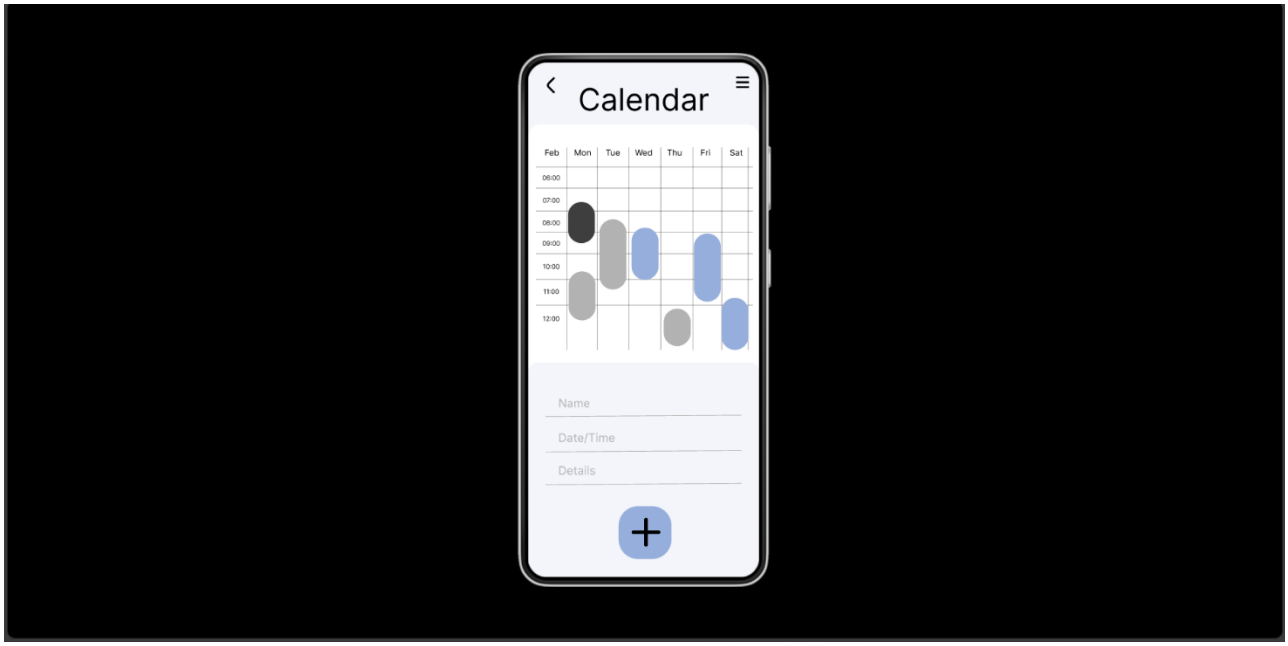
From the main page if the user clicks on the pencil, the user can set their minimum and maximum goal hours for the daily/weekly streak.

On the main page, the user clicks on the menu button to pull up the app features.

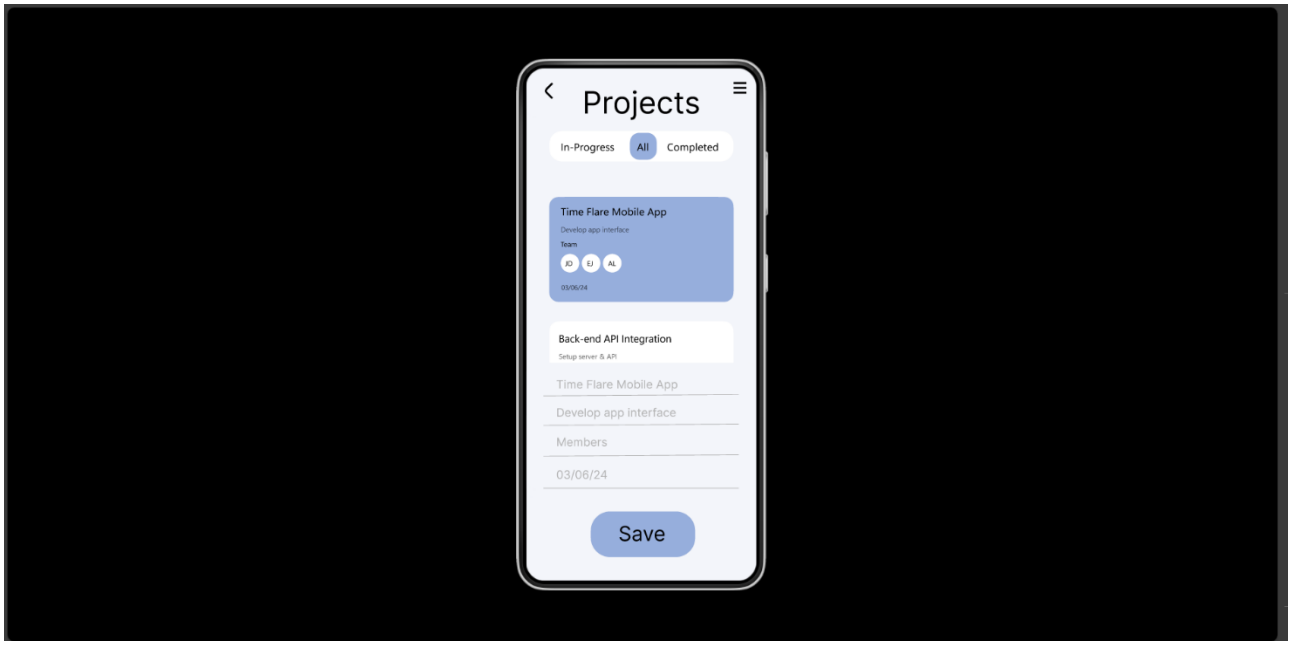
The project screen where users can view all projects in any state or add a new project.



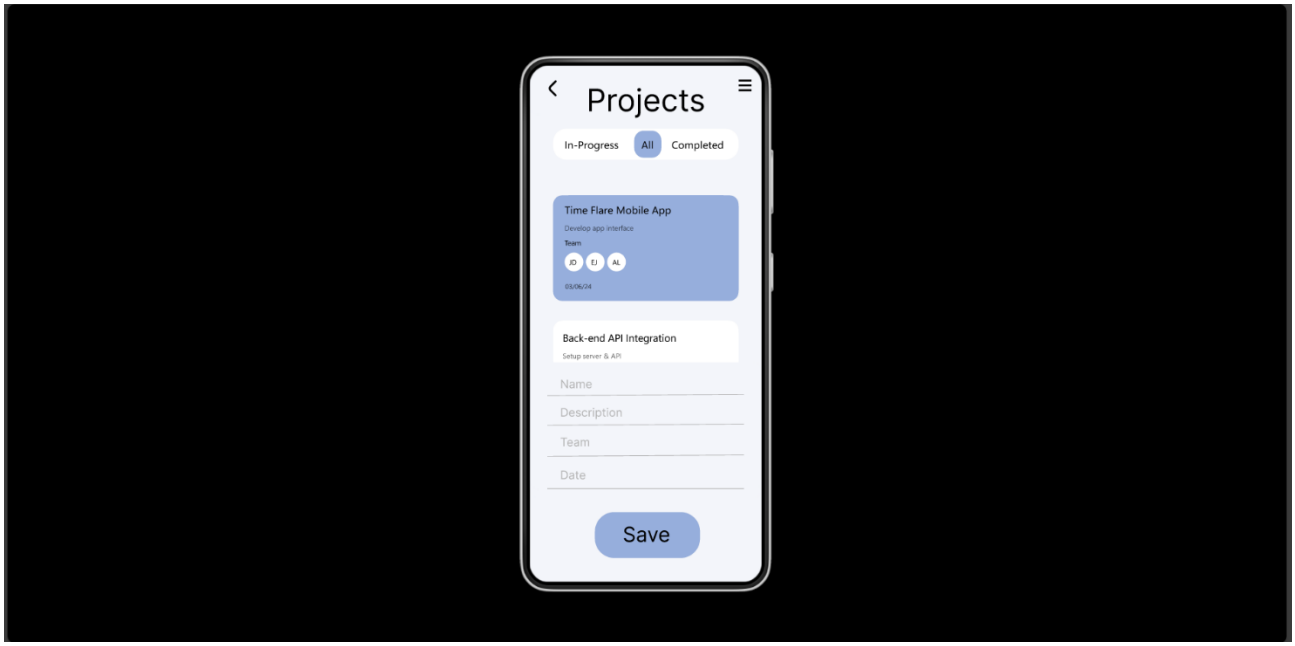
The calendar screen shows the user upcoming events.



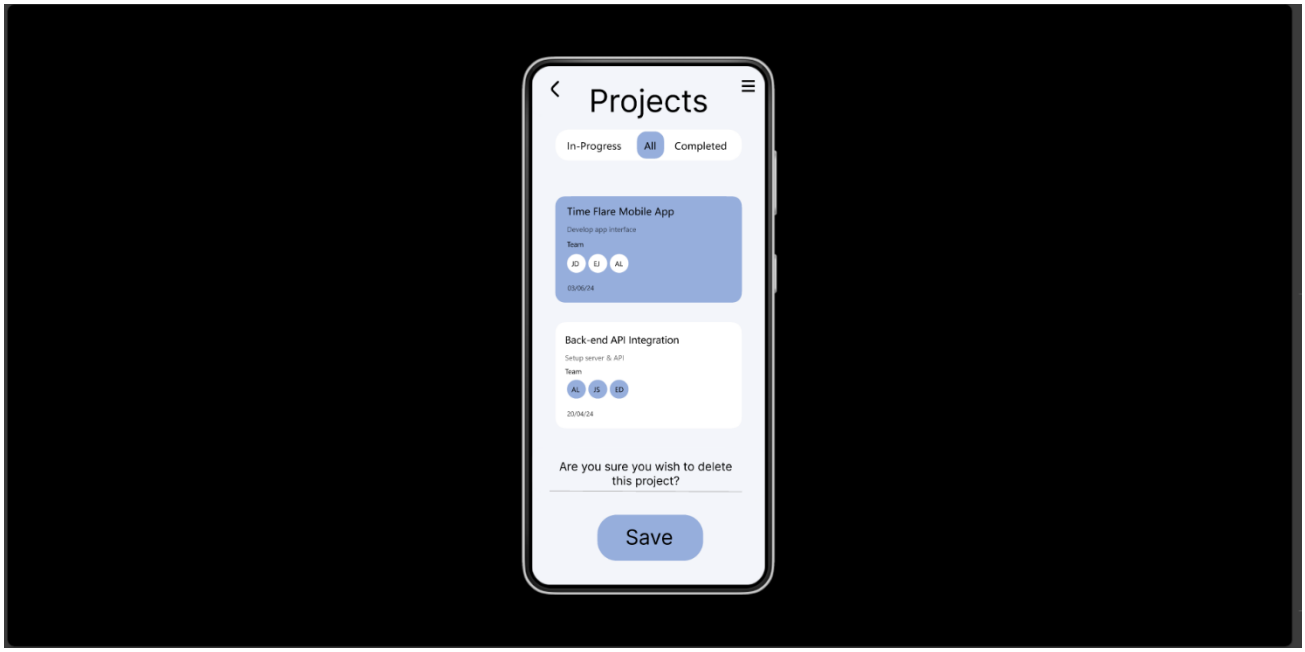
Allows the user to add upcoming events to the calendar



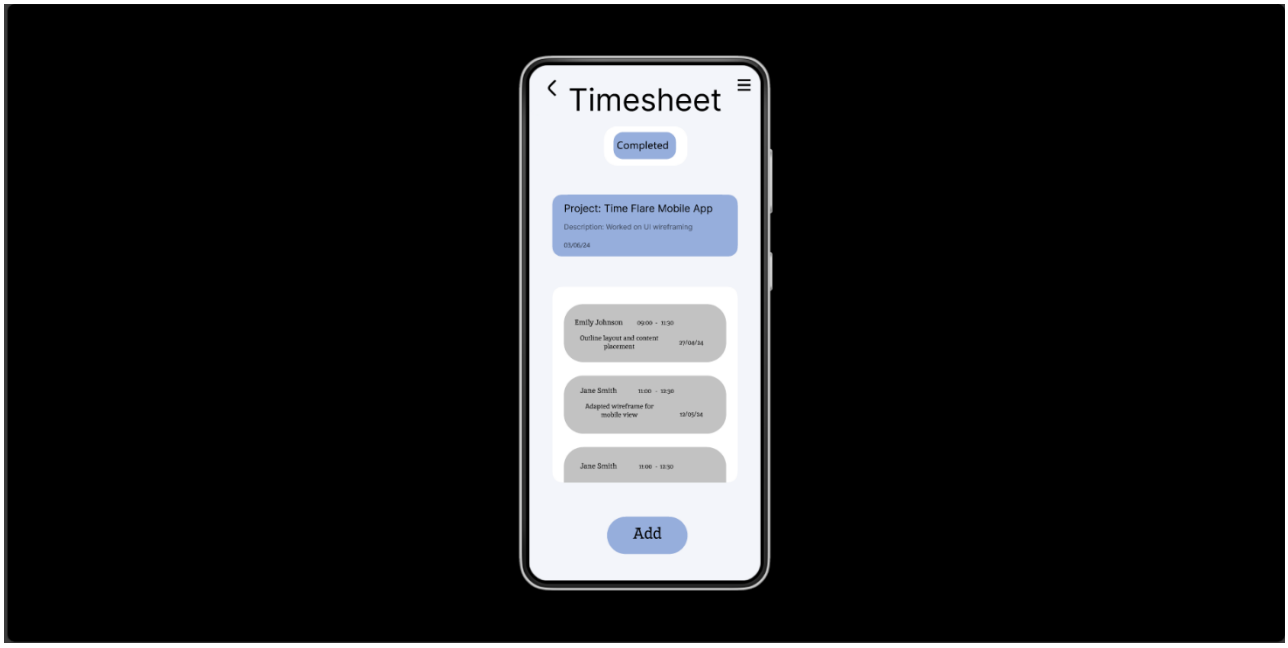
Users can edit the information about a project card.



Users can add a new project card.

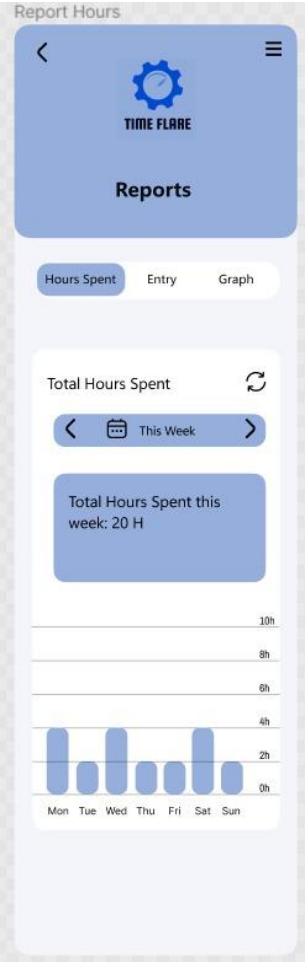


After pressing the delete button, the user is asked for confirmation.

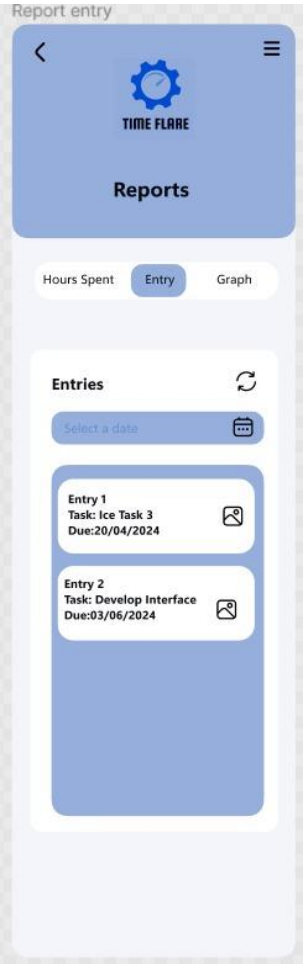


Timesheet page allows users to record project work.

Graph showing hours worked in the week.

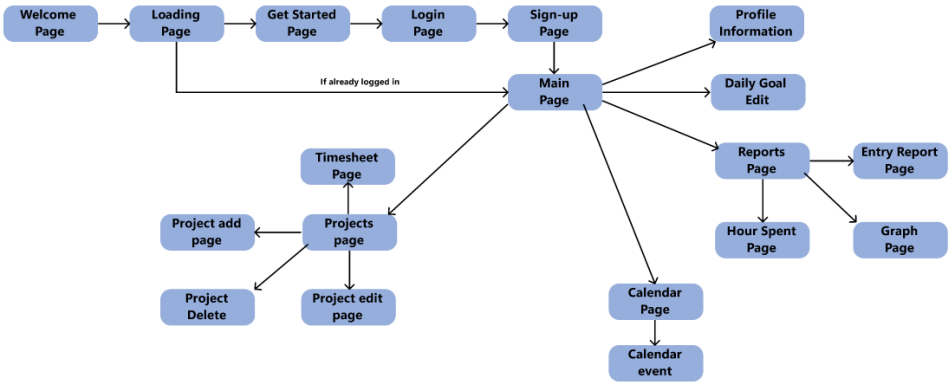


Total hours spent on the app in the week.

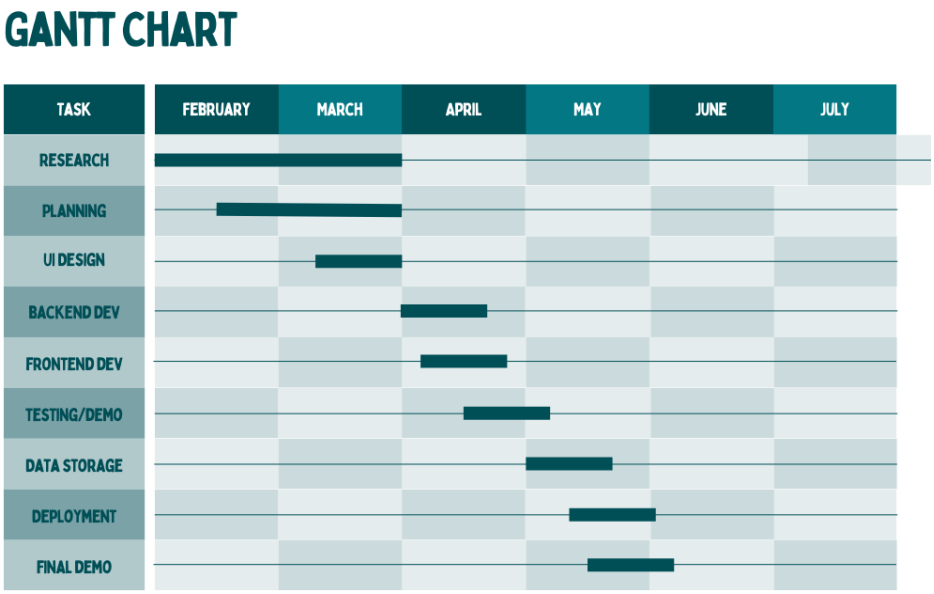


Report entries with the date of the task due

Flow Diagram



Project plan



Conclusion

With use of the planning described throughout this section, we can find that the correct pathway to completing the Time Flare application is thorough and detailed, and will allow for development to commence with ease thanks to the insightful descriptions of features that will aid in the development process of the official Android app. The thorough design schematics of the application that have been created with Figma will result in a visually attractive user interface alongside providing extensive functionality to the users of Time Flare, whilst also maintaining an entirely user-friendly level of interaction. With the completion of the Research, Design and Planning of Time Flare, efficient and successful development can begin.

Reference List

Infosecinstitute. 2022. *Understanding Third-Party Authentication: Security Implications & Failures | Infosec*. [Online] Available at: https://www.infosecinstitute.com/resources/industry-insights/third-party-authentication-oauth-good-or-bad-for-security/#:~:text=Assuming%20the%20third%2Dparty%20system,handle%20secure%20credential%20recovery%20methods. [Accessed 27 Mar. 2024].

Synopsys. 2016. *5 reasons to use third-party authentication instead of creating your own*. 28 November 2016. [Online] Available at: https://www.synopsys.com/blogs/software-security/5-reasons-third-party-authentication.html [Accessed 27 Mar. 2024].