# **OPEN SOURCE CODING (INTRODUCTION)**

OPSC7311 PART ONE

**2024** 

TASK 1: RESEARCH, PLANNING AND DESIGN

**GROUP MEMBERS:** Allison Gopal - ST10083717

Lilitha Njeje - ST10083978





**Introduction:** 

Welcome to our extensive report on time-tracking applications called TIME WIZE SOLUTIONS, which is intended to improve client project management productivity and efficiency. For businesses and independent contractors, precisely tracking time becomes vital in the fast-paced workplace of today. The purpose of the current research is to investigate the availability of time tracking applications, their characteristics, and how they affect project management.

# **Sections Included in the Document:**

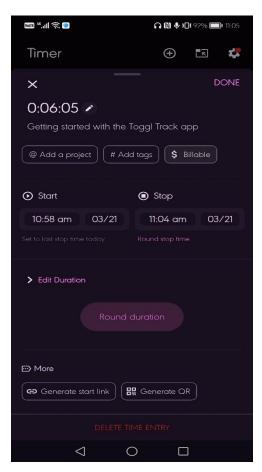
- 1. **Introduction**: Presents an outline of the study paper and defines its goals and methodology.
- 2. **User Needs**: Evaluates consumers' particular requirements and inclinations with regards to time-tracking applications. We'll investigate things like customization opportunities, accessibility, and ease of use.
- 3. **Market Analysis**: Determines current time-tracking software to find its advantages, disadvantages, and room for development.
- 4. **Gamification Techniques**: Examines gamification strategies that may be applied to the app to improve motivation and user engagement. We'll look into gamification features like achievements, social interactions, progress monitoring, and rewards in this part.
- 5. **Authentication and Security**: Looks into security precautions to keep user data safe and authentication techniques for user login. This part will be devoted to making sure that the app complies with industry security standards and data protection laws.
- Conclusion: Highlights the possibilities for the design of the time-tracking app and summarizes the main research findings. This section will focus on key observations and suggestions for developing an effective application that puts the needs of the user first.

# 1. Toggl Track

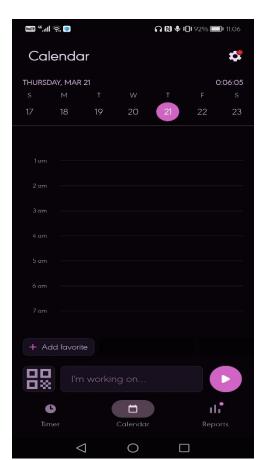
# Overview:

A widely utilized time tracking program called Toggl Track makes it effortless for users to keep track of their work hours, assignments, and tasks. It is appropriate for people of all ages because of its easy-to-use layout. (Parsons. 2023)

## **Screenshots**:



The primary dashboard of Toggl Track shows a list of active tasks along with buttons to start, stop, or update them.



Users have the ability to tag and describe their jobs precisely, as well as group them into projects.

## **Strengths**

- User-friendly interface: With Toggl Track's simple and clear interface, users can easily and unambiguously track their time. (Parsons. 2023)
- Cross-platform compatibility: Users may easily transition between devices attributable to the app's availability on several platforms, including iOS, Android, and the web. (Parsons. 2023)
- Thorough reporting: Toggl Track gives users access to in-depth data and insights on how they utilize their time, enabling them to assess their productivity and pinpoint areas in need of development. (Parsons. 2023)

# Weaknesses:

- Limited free plan: Toggl Track provides a free plan, but it has restrictions on the sum of tasks and team members. As a result, it might not be appropriate for more complicated teams or companies. (Parsons. 2023)
- Restrictions on offline mode functionality: When the device fails to come online, certain functionalities of Toggl Track's offline mode are unavailable. (Parsons. 2023)

# **Innovative Features:**

- **Pomodoro timing**: Toggl Track incorporates a Pomodoro timer function that enables users to apply the Pomodoro Technique towards increased productivity and time management. (Parsons. 2023)
- **Autotracker**: Toggl Track's Autotracker function records users' time by automatically identifying the websites and apps they are accessing and reveals information about their digital habits. (Parsons. 2023)

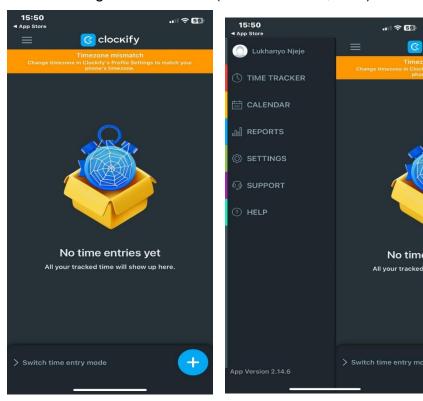
# 2. Clockify

# Overview:

Clockify is the software that was developed and released in Play Store back in 2018 for android, this software assists managers to keep track of the reports, timekeeping, the progress of the projects for teams as well as individuals(management). (Forbes advisor, 2023).

Clockify is composed of three features that have sub-features included, these features are:

- · Timekeeping feature
- Reporting Feature
- Management features (Forbes advisor, 2023).



# Timekeeping

Clockify's initial function upon login is its timer/Time tracker. used to quantify task time manually or automatically. Notifications prompt if the timer is not initiated, with options to auto-start/stop based on browser/computer activity. Offline work

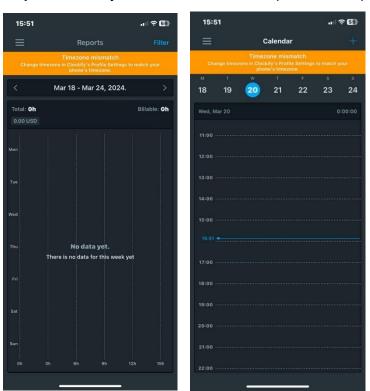
syncs with online data upon reconnection.

The Clock In/Out Kiosk feature is available, along with a calendar. (Forbes advisor, 2023).

# **Reporting Feature**

The reporting feature has a **dashboard**, this feature is composed of **project progress and forecasting** which allows you to track how far along you are with a project and anticipate upcoming milestones according to current progress. This helps you understand where your project stands and anticipates when it will be finished. (Forbes advisor,2023).

**Reports** show you the date and time spend for a specific project.



**Activity tracking** allows to keep track of the activities, cites visited and screenshots. (Forbesadvisor, 2023).

#### **Management Feature**

under this feature we have scheduling, this sub-feature allows managers to get an overview of the capacity of their team, check who handles what projects and scheduled vs the tracked time spent. It can be used to check who worked extra and that might be at risk of being burnt out. Time off

**management** allows the administrator to define types of expenses and what qualifies as an expense. Users can submit their expenses that attaching their receipts.

**Invoicing** generates bills for tracked time, expenses, and projects, streamlining client

payments and financial management. (Forbes advisor, 2023).

Advantages	Disadvantages
Free 7days trial using pro subscription	Features are limited for a free plan
Transparent pricing	Koisak feature is not user friendly
Unlimited users	Kiosk pricing can be confusing.
Automatic timer with idle detector. (Forbes	Find and correct time entry manually.
advisor,2023).	(Forbes advisor,2023).

# **Innovative features**

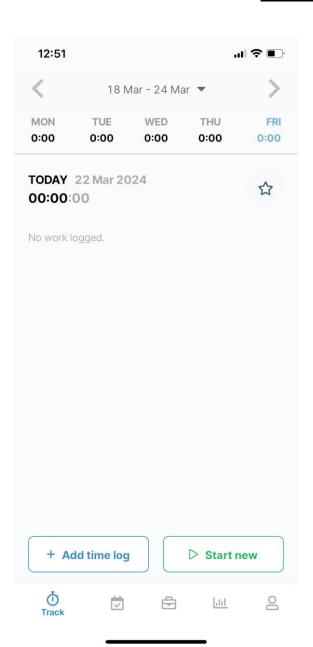
- **Flexible Time Tracking:** Easily track time across projects with manual or timer-based entries for customizable tracking.
- **Project and Task Management:** Efficiently organize work, assign tasks, set deadlines, and monitor progress in real-time.
- **Detailed Reporting and Analytics:** Gain insights with comprehensive timesheets and reports, analysing productivity and project profitability.
- **Integration Ecosystem:** Seamlessly integrate with popular tools like Trello and Slack, synchronizing data for streamlined workflows. (Forbes advisor, 2023).
- Customizable Features: Tailor Clockify to specific needs, adjusting billing rates, creating custom fields, and generating invoices.
- **Collaborative Features:** Foster team collaboration through shared projects, task assignments, comments, and notifications. (Forbes advisor, 2023).
- **Mobile Accessibility:** Access Clockify on-the-go with mobile apps for iOS and Android, ensuring convenience and productivity anywhere. (Forbes advisor,2023).

# 3. My Hours

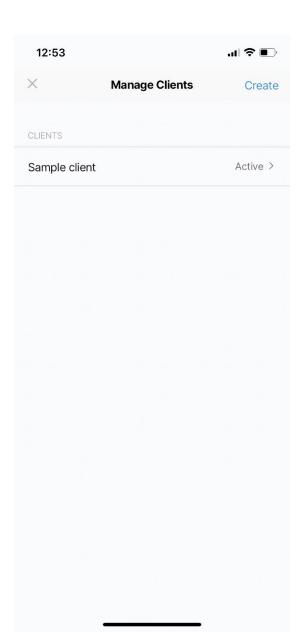
# Overview:

To efficiently manage work hours and projects, My Hours is a flexible time tracking application that can be used by individuals and teams. Users will be able to easily monitor their tasks and activities, ensuring that their working time is accurately recorded, thanks to intuitive time tracking features. Time sheets, which allow users to export or share a summary of their working time with clients and teams for review purposes, are automatically created from the tracking record. Robust reporting tools will make it easier for users to analyze time usage, project performance and team productivity. My Hours facilitates collaboration among team members, provides easy access to time on the move through a range of productivity tools and makes it possible for users to keep track of their times at work. (Qureshi, A, 2023)

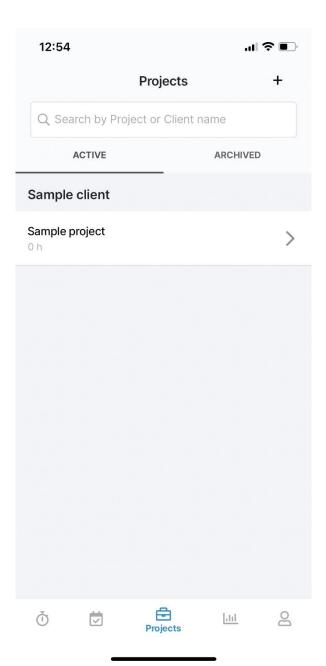
# **SCREENSHOTS:**



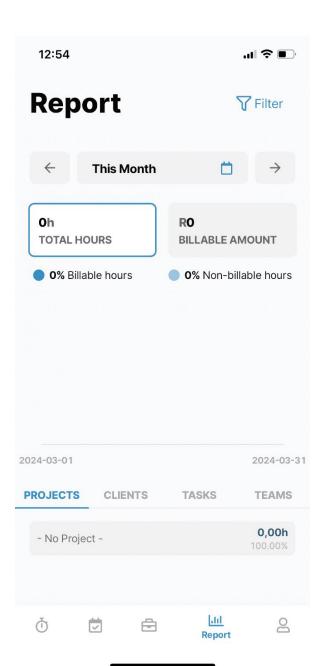
This is the homepage where the user is able to create new projects or add new clients. These projects can be done in teams and the picture below shows how a user is able to manage the teams that they are in. The total budget column will specify how much of the budget is left over for team members or even the personal user to use for the project.



The user is able to easily manage their clients between projects and the details so if need be they can easily contact them.



The dashboard allows a user to see the total hours they have worked and the number of hours they will get paid for. This allows for users to manage not only their time but also their expenditure by seeing their billable amount.



The project page will allow a user to manage the projects they are completing but also the ones they will do. It allows you to see how much income you are making, and the total hours spent on a project as well as to see if a project is completed or active.

## **Strengths:**

My Hours is an excellent user interface and time management tool that makes it easy for individuals and teams to keep track of their working hours accurately (Qureshi, A, 2023). Its strong project management features make it easy to organize tasks and projects, while automatic timesheet generation makes the administration process more efficient. To facilitate informed decision making and productivity optimization, the Platform's powerful reporting tools provide valuable information on time usage, progress of projects as well as team performance (Qureshi, A, 2023).

## Weaknesses:

While My Hours is a good tool, users should consider some of its shortcomings. The pricing structure, which may be difficult for small businesses or freelances with tight budgets and if they need more sophisticated features or support of larger teams, is one possible drawback. In addition, some users may find that the platform does not have compatibility with specific software or processes they use, even though it offers integration with different productivity tools. (Qureshi, A, 2023).

## Innovative features:

My Hours is offering several innovations. One such feature is that it seamlessly integrates with popular project management tools like Asana, Trello, and Slack to allow users to easily synchronize tasks and keep track of time on any platform. Its intelligent tagging system, which allows users to classify time entries according to custom tags for detailed analysis and reporting. In addition, advanced reporting tools, including real-time insights and visualizations, enabling users to make data driven decisions on their time use and project allocation, are integrated into My Hours (Qureshi, A, 2023).

# Infographic:

FEATURES	Clockify	2 My Hours	3 Toggl Track
Timekeeping 15	*Timer/Time tracker Manual or automatic time quantification *Notifications for timer initiation *Offline work sync *Timesheets *Clock In/Out Kiosk *Calendar	*Intuitive time tracking *Manual or timer-based entries *Timesheet creation *Clock In/Out Kiosk *Calendar	*Easy time tracking *Pomodoro timer *Autotracker
Reporting	*Project progress and forecasting * Date and time spend reports *Activity tracking (sites visited, screenshots)	*Detailed time reports * Project performance analysis *Team productivity insights	*In-depth time usage insights *Digital habits analysis
MANACEMENT MITTURES	*Scheduling * Time off *management *Invoicing *Project and task management	*Project and task organization *Client and team management *Budget management	*Limited free plan *Restrictions on offline mode
Advantages	*Free 7-day trial *Transparent pricing *Unlimited users * Automatic timer with idle detector	*Excellent user interface *Strong project management features *Robust reporting tools	*User-friendly interface *Cross-platform compatibility
Dis-Advantages	* Limited features for free plan * Koisak feature not user friendly * Confusing Kiosk pricing *Manual time entry correction	*Pricing structure may be challenging for small businesses *Compatibility issues with specific software *Limitations in flexibility and depth of information	*Limited free plan *Offline mode restrictions
Innovative Features  NESS 2446	*Flexible time tracking *Integration ecosystem *Customizable features *Collaborative features * Mobile accessibility	*Integration with popular project management tools *Intelligent tagging system *Advanced reporting tools *Geolocation tracker *Offline mode	* Pomodoro timing *Autotracker

## **List Of The Best Features:**

## • User-Friendly Interface:

Create a straightforward and unambiguous interface so that users can track their schedules, tasks, and tasks without difficulty.

# • Cross-Platform Compatibility:

To enable customers to switch between devices with ease, make sure your software is accessible on a variety of platforms, including web browsers, iOS, and Android.

# • Comprehensive Reporting and Analytics:

To assist users in evaluating their work and making decisions, provide comprehensive data and insights on productivity, time utilization, advancement of the project, and team performance.

#### • Pomodoro Timer:

Provide a Pomodoro timer feature to assist users in using time management strategies for higher output.

#### Autotracker:

For more effective tracking, include an Autotracker function that tracks users' online activities, pages visited, and apps used.

# • Flexible Time Tracking:

Allow for flexible tracking across jobs and projects by providing manually or timer-based time recording inputs.

#### Project and Task Management:

For successful project management, provide proper work structure, task assignments, time constraints, and real-time progress tracking.

#### Integration Ecosystem:

For coordinated workflows and task management, seamlessly interface with well-known productivity apps including Trello, Slack, Asana, etcetera.

#### Collaborative Features:

Facilitate group work by providing tasks, comments, notifications, shared projects, and team management tools.

#### • Mobile Accessibility:

Make sure customers can track time and handle work while on the go by providing apps specifically designed for the iOS and Android platforms.

#### **CONCLUSION:**

In conclusion, we have found a landscape full of features that are suited to meet the different needs of users from all sectors when examining existing time tracking apps for Android such as Toggl Track, Clockify and My Hours. These applications make it easy for users to monitor their schedules, tasks, and projects by providing intuitive interfaces, compatibility with other platforms as well as reliable reporting tools. The commitment to improving time management strategies and increasing productivity is underlined by innovative features such as Pomodoro Timers and Auto Tracker. Integrating ecosystems help to facilitate easy integration with common productivity tools, promoting cooperation and efficiency among teams. The future of time tracking applications promises to enable users to optimize their use, improve project management efficiency, and achieve their objectives with clarity of performance in today's fast paced work environment, thanks to mobile accessibility that ensures on-the-go project management

## Planning and Design:

## **Introduction**

Productivity improvement and efficiency has grown critically for both organisations and individuals. In today's rapidly changing landscape, digital evolution has become commonplace, permeating every aspect of our lives, and shaping the way we work, communicate, and interact with the world. The desire for creative and user-centric solutions tends to expand. In response, our team has started the process of planning developing an app that not merely provides its users' fundamental requirements but also includes unique features aimed at enhancing user experience along with engagement. **Overview** 

we are introducing a multipurpose platform that caters to the requirements of individuals seeking to improve productivity as well as encouraging personal growth, TIME WIZE SOLUTIONS. Our application aims to integrate simplicity along with creativity, offering users with simplified interface for accomplishing regular tasks as well as conducting self-improvement initiatives.



This initial Icon design reflects the core of creativity and advances. Incorporating dynamic visual elements that represents growth and development

#### Innovative features:

- **O** project and task management, this feature will assist individuals and organisations to stay organized, manage their workload efficiently, as well as optimize their productivity.
- O Cross platform compatibility, the purpose of this feature is to allow users to swich between devices easily, assuring that the software is accessible on different platforms.
- O Auto-tracker: this feature will track the user's online activities, the pages visited as well as the applications that are used.
- Our app incorporates **Task Rewards**, a gamification feature, to motivate users with badges, points, or incentives, enhancing work enjoyment and fostering a sense of achievement and progress
- Our app's Focus mode disables notifications and limits app access, aiding users in maintaining focus during tasks.

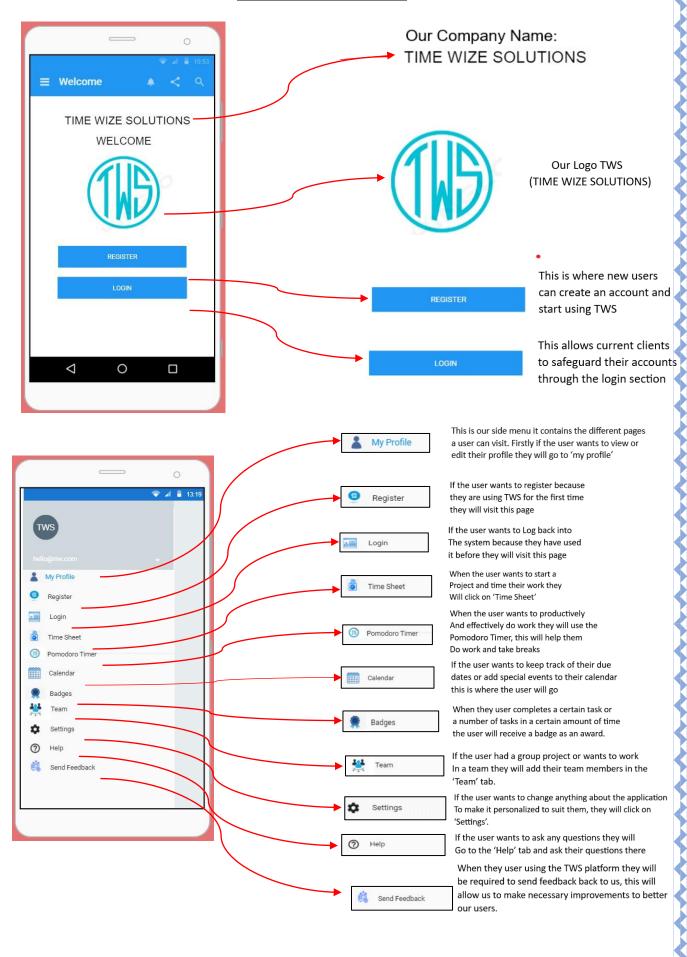
## **Detailed List of Requirements**

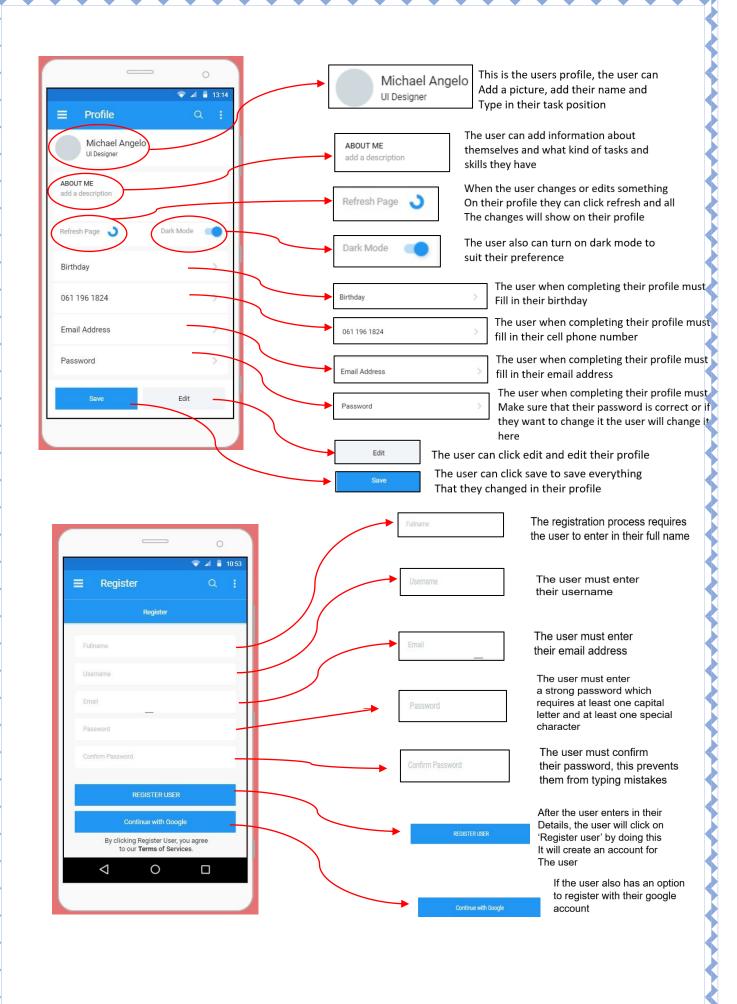
- O User Authentication/Log in this application will implement a log in system which will prompt the users for their registered username and password in order to get access to the mobile application.
- O The system shall allow Users to create categories that the timesheet entries will belong to once the user is logged in, they can now create these categories, users will be prompt for the category names as well as the description. Users will be able to add, edit and delete categories using buttons implemented for those actions.
- O The system shall allow user to create a timesheet entry This entry includes task date, start/end times chosen via datetime, category selection, and details input (description, project name, task) before submission via button for timesheet completion.
- O The system shall allow user to optionally add a photograph to each timesheet entry this requirement will be addressed by creating button to upload the photograph, there will be a file input field to select photographs from certain locations, then the uploaded photo will be saved to the database server, the uploaded photo with display next to the timesheet entry.
- O The system shall allow user to set a minimum daily goal for hours worked, as well as a maximum daily goal this feature will contain the date of the day, there will be text fields where users can provide with the minimum and maximum goal, there must be a button to save and update daily goal.
- The system enables users to view timesheets within a chosen period, sort by date range, and access entries with start/end times, descriptions, categories. Additionally, users can view associated photos via a dedicated button
- O The system shall allow user to view the total number of hours spent on each category during a user selectable period- users will have option to filter/sort the dates to view the total hours worked for each category, the hours spent on each category will be displayed in a form of a list.
- O The system shall allow users to view a graph showing the total hours worked each day over a user selectable period. The graph must also display the minimum and maximum goals users will be able to view a graph, (bar graph that will generate the minimum, maximum hours worked and the goals, the hours worked to show the flow and the progress.
- O The app must display in a visual format how well the user is doing with staying between their minimum and maximum hour goals over the past month a bar graph showing the hour goals for the month, colours to differentiate between days that meet, exceed, or fall short of the goals.

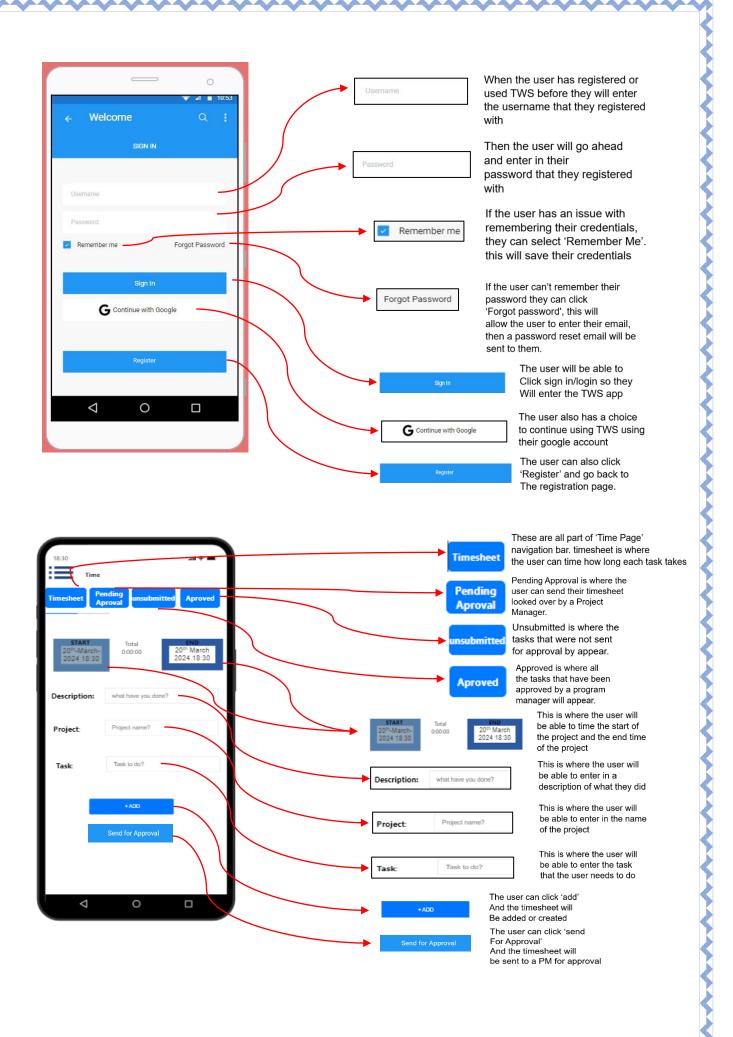


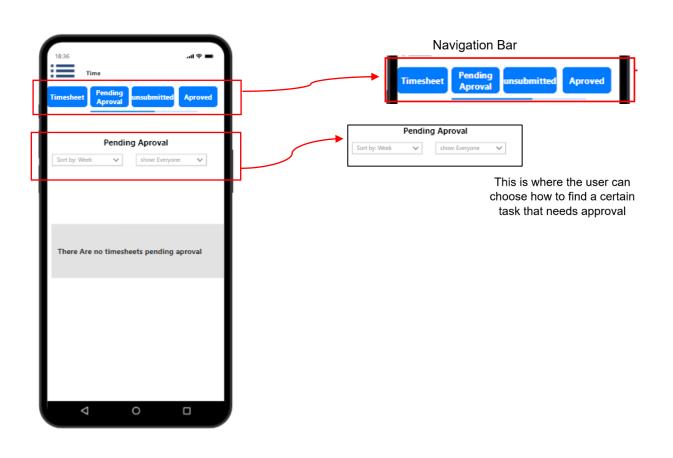
O Task Rewards – when the users reach a daily maximum hour worked, they will be gifted with rewards like coins gadget.

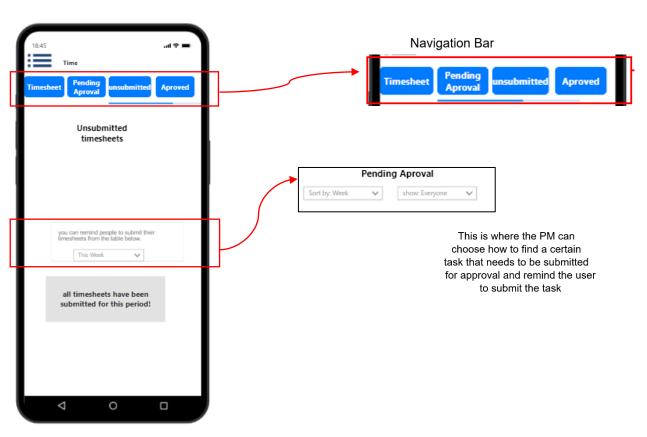
# **User Interface Design:**

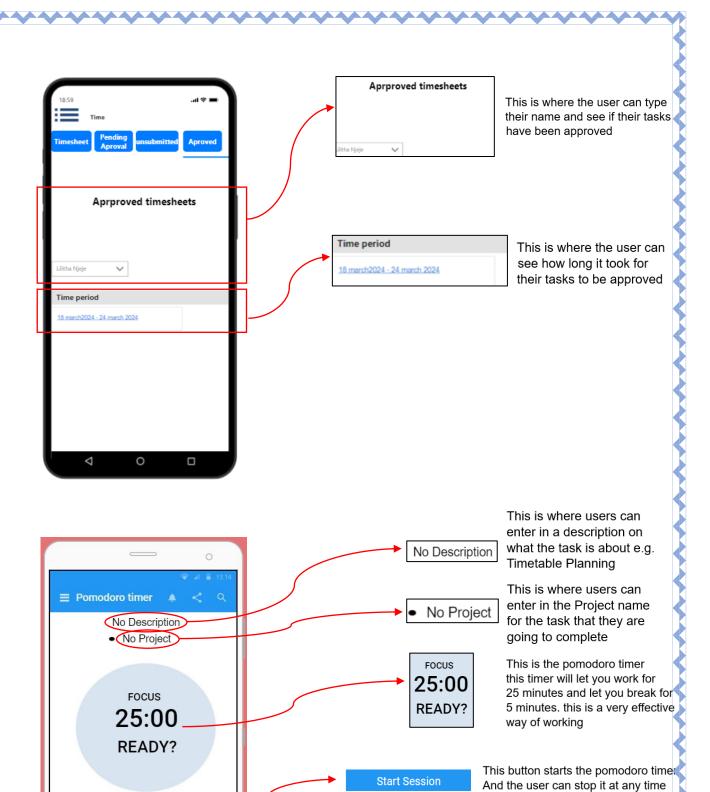












Pomodoro Settings

Pomodoro Settings

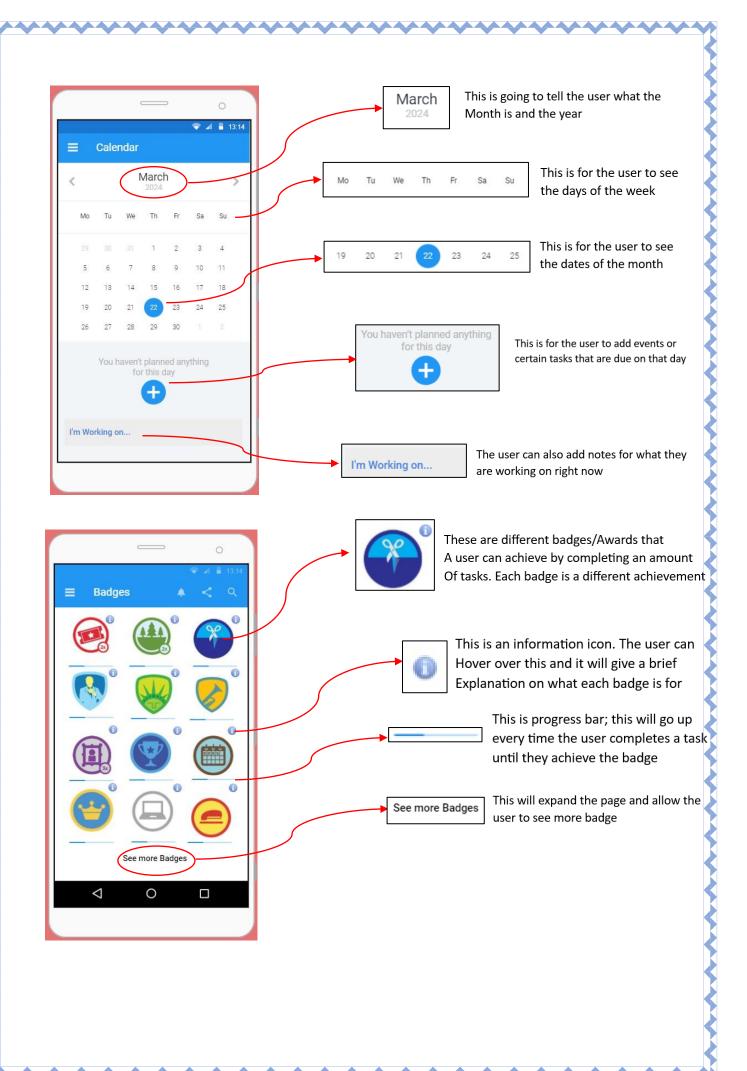
0

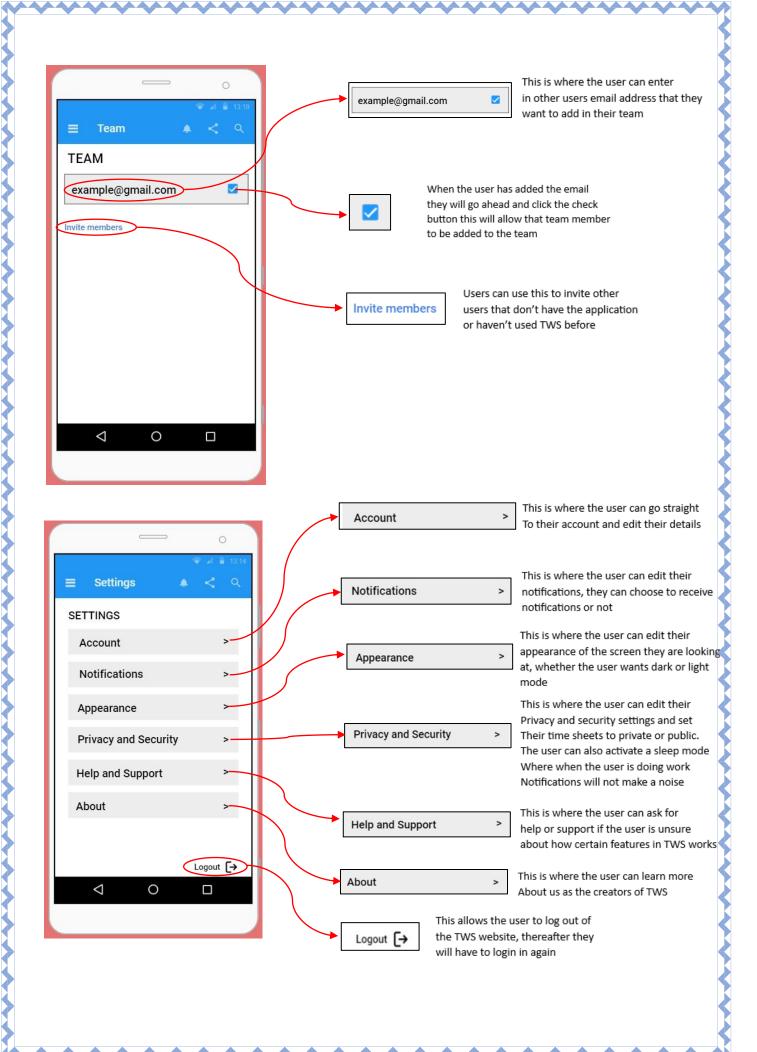
V

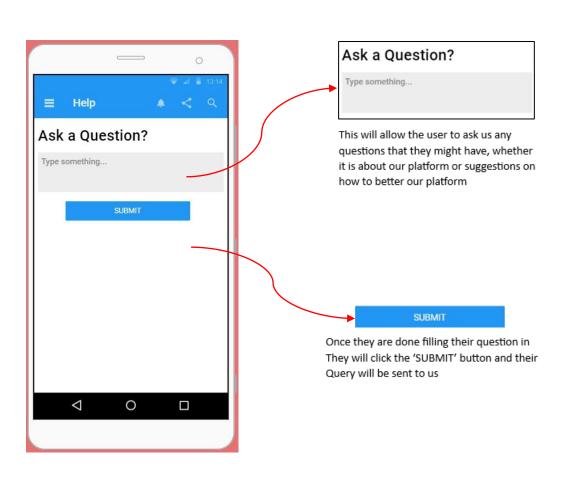
Pomodoro settings as where the

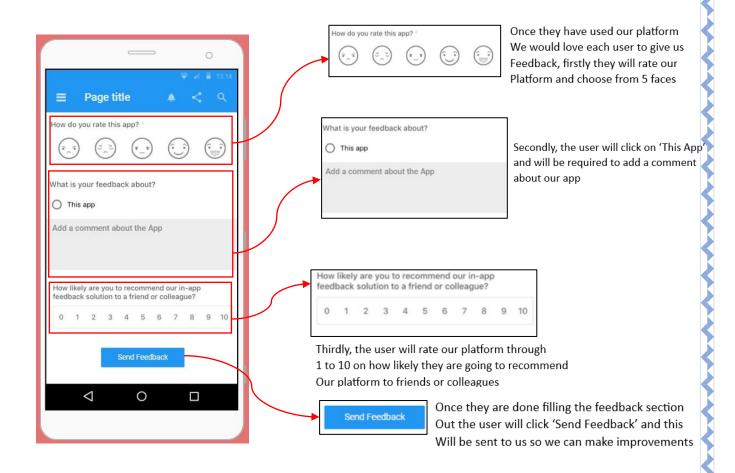
ringtone or take longer breaks

user can go and change the timers

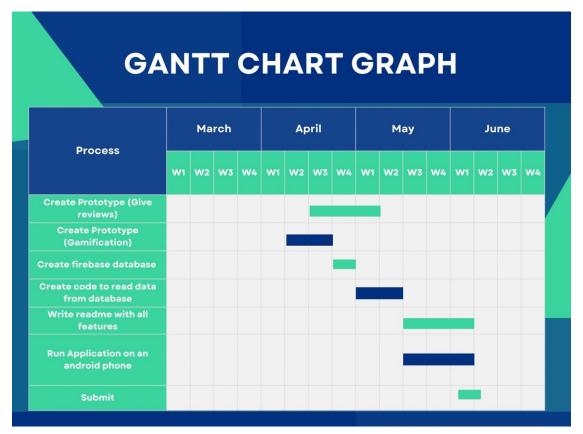








# **Project Timeline**



	March			April			May			June						
Process	Process W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
Research websites																
Complete Research Essay																
Complete Infographic																
Create prototype (Login, register and welcome)																
Create prototype (Timesheets)																
Create Prototype (Setting goals and iewing hours spent)																
Create prototype (Create graph)																

#### **CONCLUSION**

In conclusion, in the field of productivity and personal development, Time Wize Solutions emerges as a beacon of innovation. The application is trying to simplify daily tasks, while enhancing user engagement and progress by carefully planning a wide range of features including project and task management, cross platform compatibility, Auto Tracking, Task Rewards, and the Priority mode. In order to facilitate the user's tracking of their progress toward set targets, comprehensive requirements ensure a smooth navigation and efficient time management. Users can access their information anytime, anywhere and easily integrate it into their daily lives by securely storing the data in an online database. A layer of gamification, incentivizing users to achieve their goals and encouraging a sense of achievement, is added to the inclusion of task rewards. Time Wize Solutions offers a comprehensive solution, enabling users to realize their true potential and take advantage of the opportunities available in both Personal and Professional domains by driving efficiencies and growth within an increasingly fast technology environment.

# **Bibliography/Reference List:**

- Parsons, A. May 18, 2023. What Is Toggl Track, and How Does It Work?
   [Online] Available at; <a href="https://www.makeuseof.com/what-is-toggl-track/">https://www.makeuseof.com/what-is-toggl-track/</a>
   [Accessed 12 Mar. 24]
- Forbes Advisor, 2023. Clockify Review 2024: Features, Pros & Eamp; Cons, 29 November 2023. [online]. Available at; <a href="https://www.forbes.com/advisor/business/software/clockify-review/#:~:text=Clockify%20is%20a%20time%20tracking,spend%20on%20work%2Drelated%20tasks">https://www.forbes.com/advisor/business/software/clockify-review/#:~:text=Clockify%20is%20a%20time%20tracking,spend%20on%20work%2Drelated%20tasks</a> [Accessed 13 march 2024].
- Qureshi, A, 2023. Honest Review. My Hours, 9 December 2023.[Online].
   Available at: https://www.jibble.io/reviews/myhours [Accessed 13 march 2024]