Promodoro Mobile Application

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GitHub: `https://github.com/BonyGeorge/Pomodoro-Mobile-App`

Contents

1 Document Version

SRS Version	Date	Reason for Change
1.0	18-October-2020	SRS First version

Table 1: Document version history

2 Introduction

2.1 Purpose of this document

The point of this paper is to show full data about the task framework. The archive will depict the trademark focuses and portray the use of the Pomodoro. This archive will help the clients of the application how to utilize it and full data about the undertaking capacities and interfaces.

2.2 Scope

This mobile application for Pomodoro technique. The Pomodoro Technique is a profitability framework that encourages you take the correct number of breaks while as yet completing your work. Generally, it separates your day into 25-minute center meetings followed by five-minute breaks.[3] It's the ideal period of time for absorbing information and completing things—without wearing out.

A committed Pomodoro application eliminates the need to split your day physically—rather, it lets you know precisely when to work and when to take a brief break. Here's a short gander at how the procedure functions, alongside our picks for the 10 best Pomodoro clock applications. Therefore, it will be designed to help the users the best way to try to manage their time in the best way they can. We will use flutter to build this application.This application should be ready within the end of this semester.

2.3 Overview

This application aims to help and manage their users to try to make their best in the 25 minutes of studying without any disturb to their focus. Then, it will give them the appropriate break so they can rest. So by that they can use their time in the most usable way. [2]

General rules:

- In the event that an assignment takes more than 5–7 Pomodoros, separate it
- In the event that it takes short of what one Pomodoro, include it up, and consolidate it with another errand
- When a Pomodoro starts, it needs to ring
- The following of the Pomodoro will make the users to do better
- Login to the administration and keep tabs on your development

- The Pomodoro Technique shouldn't be utilized for exercises you do in your extra time. Appreciate leisure time!

3 General Description

3.1 Product Functions

The Pomodoro Technique will give a straightforward apparatus/measure for improving profitability (your own and that of your colleagues) which can do the accompanying[5]:

- Ease tension connected to starting
- Upgrade center and fixation by eliminating interference's
- Increment consciousness of your choices
- Lift inspiration and keep it consistent
- Support the assurance to accomplish your objectives
- Refine the assessment cycle, both in subjective and quantitative terms
- Improve your work or study measure
- Fortify your determination to continue putting forth a concentrated effort even with complex circumstances

3.2 Similar System Information

This application is a stand alone application. The user need internet only for the first time when he/she install it then they can use it offline. Toward the start of every day select the undertakings you have to finish and put them on the TODO list above[1].

Begin working:

1. Start the Pomodoro clock
2. Work until the Pomodoro rings
3. Enjoy a short reprieve (3-5 minutes)

Continue working, Pomodoro after Pomodoro, until the job that needs to be done is done. Each 4 Pomodoros enjoy a more drawn out reprieve, (15–30 minutes).

3.2.1 Previous systems

1. Pomodoro, a Mobile Robot Platform for Hand Motion Exercising [4]: Moderate or extreme Mobility handicaps adversely influence how individuals perform assignments consistently, accordingly, diminishing their personal satisfaction. So by using Pomodoro mobile robot system, whose objective is to energize clients languishing from decreased portability to participate in treatment by exploiting of their proxemics space. The framework is formed of a non-holonomic stage and a cell phone with a virtual framework, both controlled through hand movement following offering an intelligent answer for performing movements. Subsequently, while the client is diverted teleoperating the Pomodoro, the movement information is caught for later appraisal with a medical services proficient.

2. Cloud Based Algorithm for Task Management based on Pomodoro technique [1]: By using Pomodoro technique it helps the user to manage his/her time and achieve the tasks perfectly. This paper illustrate more details about pomodoro by using a task management solution called (PomaFocus). PomaFocus gives users the ability to: 1) manage and create all tasks you need. 2) Have their days scheduled automatically. 3) Send warning or notifications when a task should begin. 4) Track Pomodoro cycle with timer in application. 5) Automatic rescheduling of tasks if task has not been completed.

3. An implementation to reduce internal/external interruptions in Agile software development using pomodoro technique [6]: These days, to deliver the software product in order time.the Programmer needs to focus in on their work seriously. Despite the fact that, there are many interruptions happening during work time, the product must be delivered by the deadline. Designers may need to concentrate on the best way to improve their concentration and efficiency. This paper focuses on the usage of utilizing the Pomodoro technique.

4. Can work as alarm : that ask you any questions that already have it's answer to make sure that the user is awake.

3.3 User Characteristics

Anyone can download the application. As it's made with Flutter, they can find it in both App Store and Google play. The user need only to have task to do so that the application can manage it.Therefore , it will give the user track of the work that they completed and the work they need to finalize.

3.4 User Problem Statement

Everyone finds a lot of distractions in their daily routine. And do have a lot of deadlines for either assignments or work things that should be delivered in time, so that's when Pomodoro works come it will manage their time and it support for less distraction . Some people forget about it so that comes the work of the Pomodoro, it benefit them to remind their deadlines. Some people feel pessimistic when they plenty of things to do by their day and they end up doing nothing, Pomodoro is the solution because it will give hope when they find themselves finished what they needed of finish in a very organize time in the end of the day. Therefore, they don't feel overworked in the day , as it manage both their work and their break.

4 Functional Requirements

Here we describe every function the user can do it in the application and its criticality and dependencies.

1- Description to every function.
2- Criticality level:

Non-Critical	Non
Less Critical	Less
Critical	Normal
Very Critical	Very
Extremely Critical	Extreme

3-Dependencies: A dependent or subordinate thing.

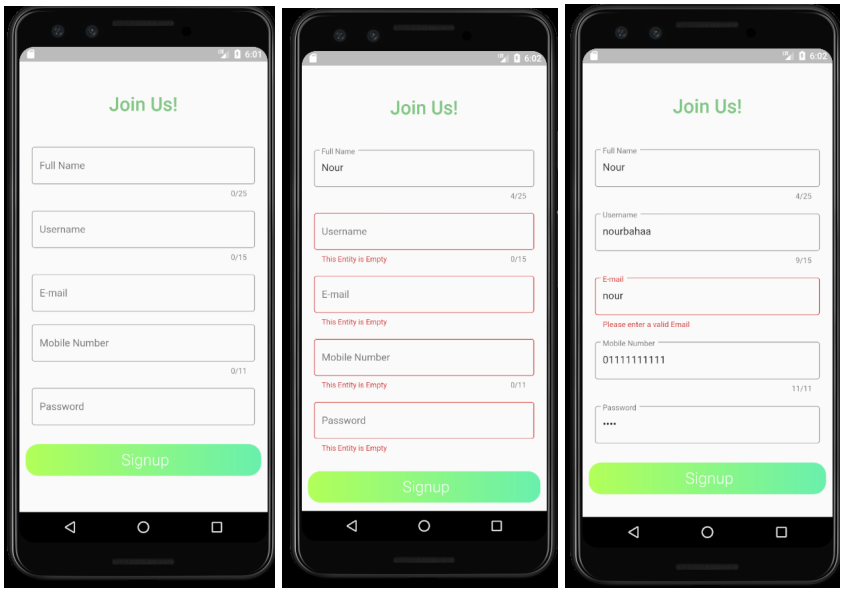
Function name	*Description*	*Critical-ity*	*Dependencies*
User can register and has a choice not to register	The system will obtain theuser's email, username and password.Once user is loggedin he will be able tosee all histasks and teams if there are any he belongs to, otherwise therewill be an option to create a new team.	Normal	None
User able to create a team and will be the admin	User is able to create a team and give it a name and can add people using username.	Normal	Register
User can to create a task	User is able to create a task and give it a name.	Very	None
User can to leave a team	User is able to leave a team so he doesn't see the tasks in the team.	Normal	Register/Log in
User can start a Pomodoro	User can start his Pomodoro (25 minutes long) and if he is in a team the other team members can see the count down ontheir team dashboard and if not he will bethe only one to see the count down of his Pomodoro.	Extreme	Create a task
User can pause Pomodoro	When user is in Pomodoro , he can pause , whenever it is needed. If he is in a team a pause will be visible to all the team members.	Extreme	Start Promodoro
User can reset Pomodoro	User can reset his Pomodoro to 25 minutes and if he is in a team all team members can see it.	Extreme	Pause Pomodoro
User can make a short break after each Pomodoro	User after finishing his Pomodoro (25 minutes), the system will show a short 5 minutes break. Other members will see the break count down.	Very	Finish Pomodoro
User can make a long break aftereach four Pomodoros	Instead of a short break the user can take a long 15 minutes break after finishing four Pomodoros. Other members will see the count down.	Very	Finish 4 Pomodoros
User can define a task in team	User can create a task for his team and give it a name.	Very	Create a team
User can define how many Pomodoros a task will take	User can control how many Pomodoros he wants to finish his task.	Very	None

5 Interface Requirements

5.1 User Interfaces

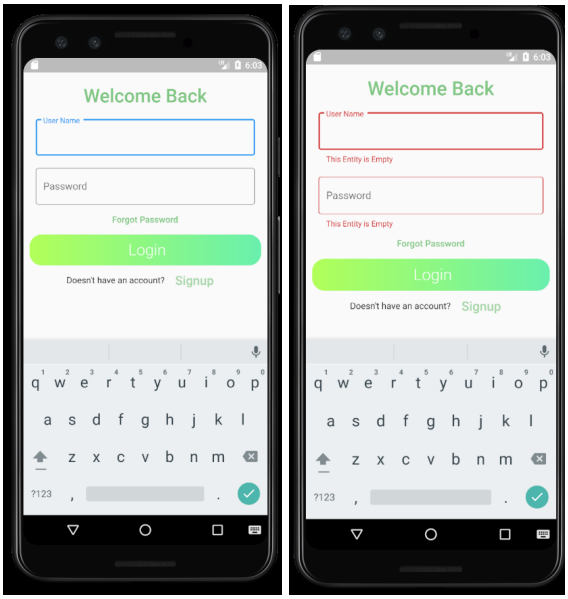
This application will have a great accommodating UI&UX by that they can both understand and use it in the easiest way.

Figure 1: Landing Frame of the application.



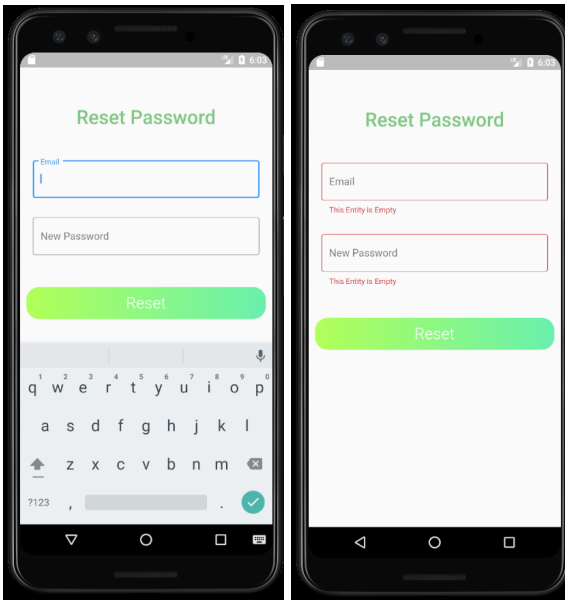
(a) Sign Up (b) Sign up Validation (c) Email Validation

Figure 2: User interface



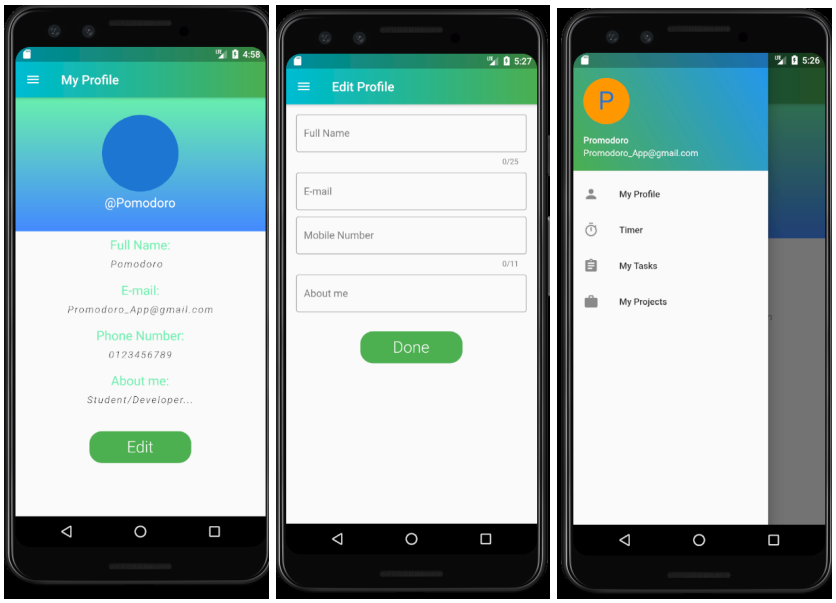
(a) Login (b) Login Validation

Figure 3: Login Pages



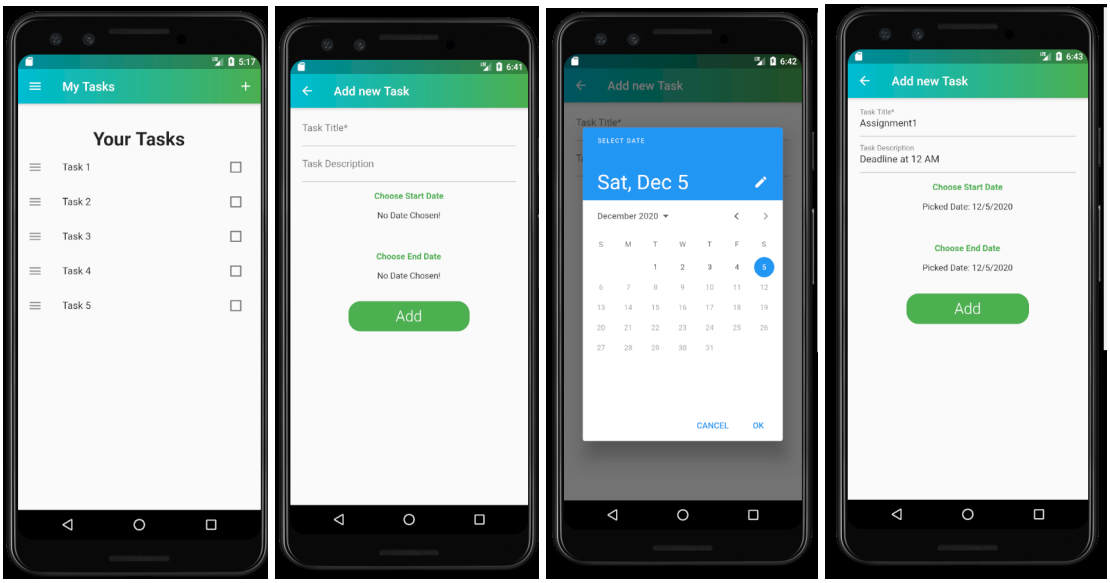
(a) Password (b) Validation

Figure 4: Reset Password Pages



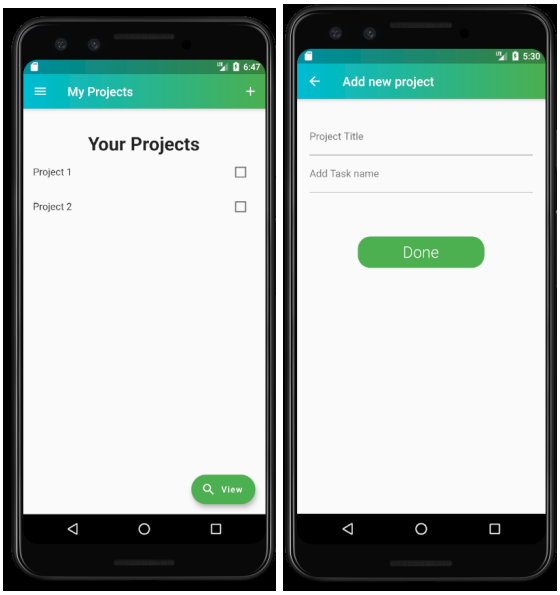
(a) Profile (b) Edit (c) Drawer

Figure 5: Profile Pages



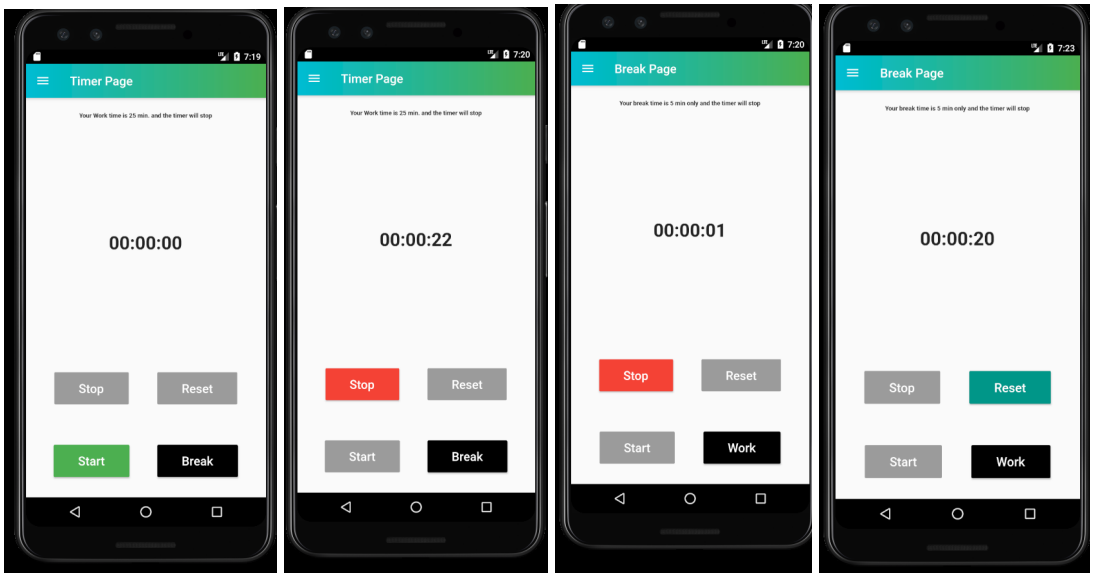
(a) Task (b) Add Task (c) Task Time (d) UI Task

Figure 6: Task Pages



(a) Project (b) Add Project

Figure 7: Project Pages



(a) Work (b) Stop Work (c) Stop Break (d) Reset Time

Figure 8: Task Pages

5.1.1 CLI

No Command Line Interface is used.

5.2 API

1. Google Calendar API.
2. Google OAuth API.
3. reCaptcha API.
4. Firebase.

6 Design Constraints

The mobile application should be accessible by any Android device we operating system (Jellybeans or higher) and on any IOS device.

7 Non functional requirements

7.1 Security

User's data could only be changed and accessed by him, information and each user must not access the database of any other user and each user shall access the system with his basic information his username and password.

7.2 Reliability

Our Pomodoro application depends on real-time database, the database update process must roll back all related updates when any update drops, because it should always be up to date.

7.3 Maintainability

Our Pomodoro application is maintained through using a list of design patterns and The system include records in the database, which includes many relations between the database tables to give the flex-ability to the application.

7.4 Portability

Our Pomodoro application should be working on cross-platforms devices such as Android, IOS but the user must download it first.

7.5 Scalability

Our Pomodoro application shall have high scalability and the attendancy that must be enough to support the large number of users at the same time.

7.6 Usability

Our Pomodoro application should be provide easy interface so anyone can use it and doesn't find any difficulty in it.

7.7 Performance

Our Pomodoro application should be always working properly and on it's highest performance because, we are using a real-time database such as the fire-base because, it's very efficient and it should also be accessible at anytime of the day and it will be affordable for any of the users at any time.

7.8 Availability

Our Pomodoro application shall be available at anytime and the database shall always be ready to be accessed at anytime of the day and to be secured.

8 Operational Scenarios

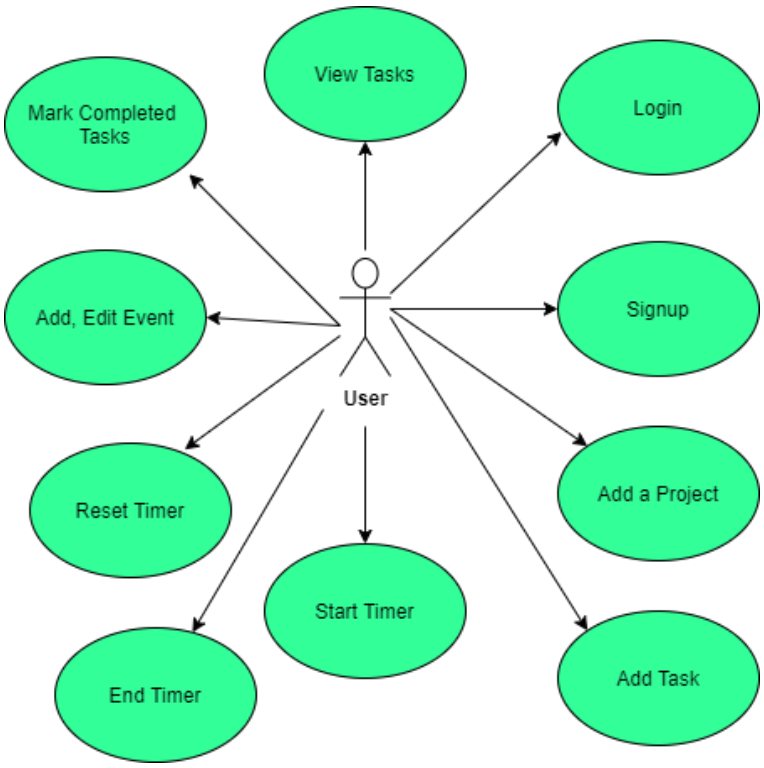


Figure 9: Our Scenario case.

1. The user can register by using email to see their task history.
2. User can create a team , add people using their username or can remove them by being the admin.
3. User can make tasks and set a deadline for it for the whole team to do it.
4. User can create a task in the team so all members can see it as well or can make it individually.
5. User can start , pause ,or reset the Pomodoros as he needs.
6. User can define how many Pomodoros in each task.

9 Github

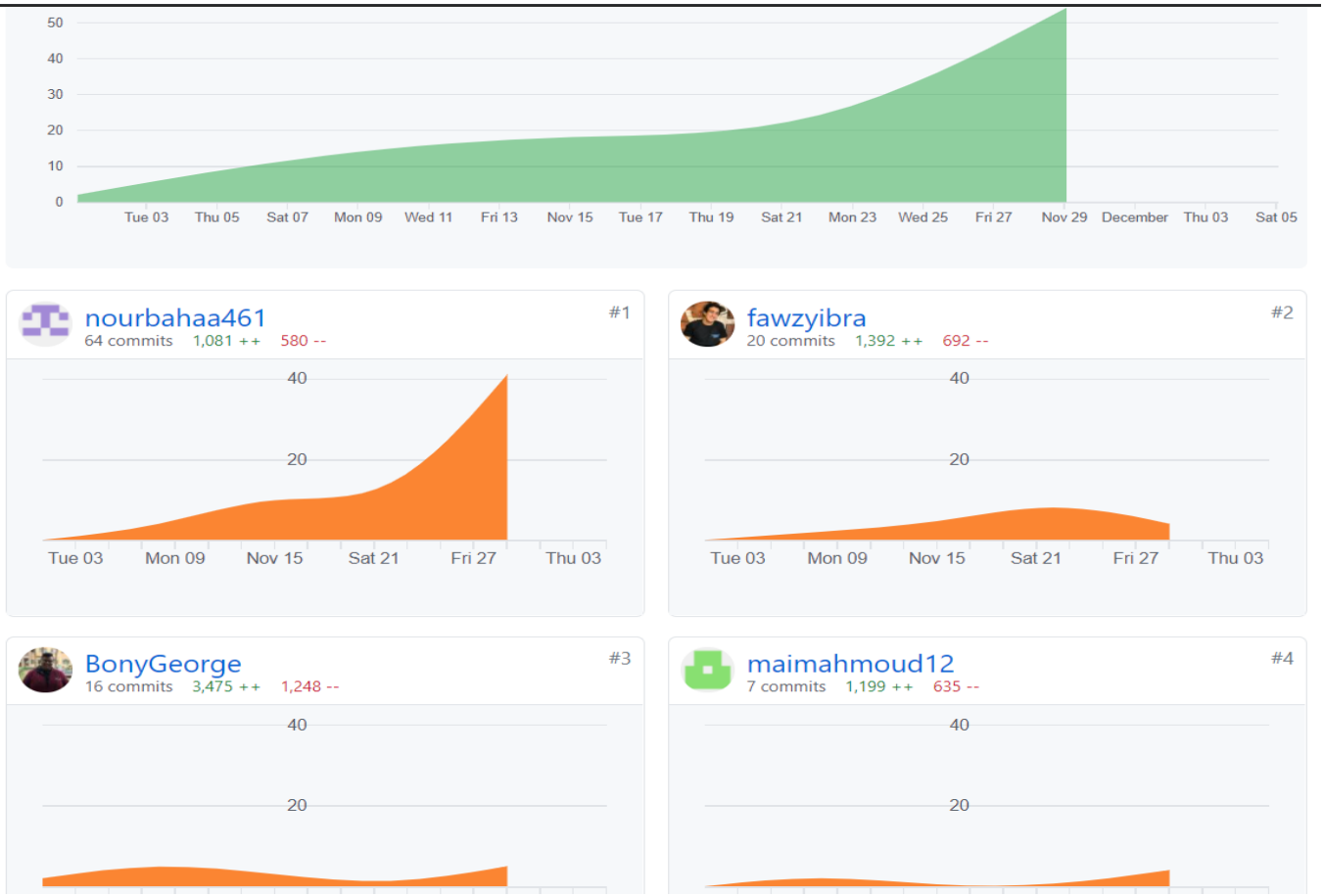


Figure 10: Conrtributors

10 Time Plan

Project Plan	
Task	Date
SRS Phase 1	18-October-2020
Project Phase 1	8-November-2020
Project Phase 2	Week 6
Project Phase 3	Week 12

References

[1] P. Aminov, N. Bola, D. Shiralkar, and M. Yoganarasimha. Cloud based algorithm for task management. In *2019 IEEE International Conference on Computational Science and Engineering (CSE) and IEEE International Conference on Embedded and Ubiquitous Computing (EUC)*, pages 249–253, 2019.

[2] Francesco Cirillo. The pomodoro technique (the pomodoro). *Agile Processes in Software Engineering and*, 54(2):35, 2006.

[3] Francesco Cirillo. *The pomodoro technique*. Lulu. com, 2009.

[4] S. F. dos Reis Alves, A. J. Uribe-Quevedo, I. Nunes da Silva, and H. F. Filho. Pomodoro, a mobile robot platform for hand motion exercising. In *5th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics*, pages 970–974, 2014.

[5] Federico Gobbo and Matteo Vaccari. The pomodoro technique for sustainable pace in extreme programming teams. In *International Conference on Agile Processes and Extreme Programming in Software Engineering*, pages 180–184. Springer, 2008.

[6] M. Ruensuk. An implementation to reduce internal/external interruptions in agile software development using pomodoro technique. In *2016 IEEE/ACIS 15th International Conference on Computer and Information Science (ICIS)*, pages 1–4, 2016.