**San Francisco State University**

**SW Engineering CSC 648/848**

**Milestone 1**

**Section 04 Team 05**

# Project title

Priority Hub (Code: PH)

# Team members

* Luis Aguilar (Team Lead)
* Tyler Tam (Scrum Master)
* Trevor Eichler (GitHub Master)
* Andy Li (Front Lead)
* Lam Tran (Back Lead)

# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Comments** |
| 1.0 | Monday, September 25th, 2023 | Team 05 | First version |
|  |  |  |  |

September 27th, 2023

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# Content and structure for Milestone 1 document for review

## Executive Summary

In recent years, some people have expressed the need for a better way to organize themselves, either with their activities as a student or as an employee of a big company. To best help these people, we need to develop a solution in which every user can map all their work. So, they can feel more in control of their time.

With the help of our application, the users will be able to create their tasks, categorize them, keep track of them, gain insights from their time spent through dashboards, and get a summary of their day. We can provide them a solution that could enhance their way of managing themselves.

Priority Hub’s team is encouraged to develop a proper application for our users, since we identify with them. All the team have been through the complex situation of not knowing how to manage their time. Thus, we believe that by solving this problem, more people will be able to not only enhance their productivity, but their lifestyle as well.

## Personas and User Stories

### Personas

#### Persona 1

|  |  |
| --- | --- |
| **Persona 1** | |
| **Name** | Terrence Hale |
| **Location** | San Francisco, California, USA |
| **Occupation** | High school Student (15 years old) |
| **Bio** | |
| Terrence was born and raised in San Francisco. He went to a lower tier elementary school and middle school. This resulted in him breezing through both schools, never really having to study or prepare during school. Once he got into a high school with a high reputation, he struggled throughout freshman and sophomore year. He also wants to join the basketball team but is not allowed to due to his grades. Terrence is now looking for a helpful way to help him get back on track and thinks a productivity app will be the right way to start. | |
| **Skills** | |
| Basketball, chess | |
| **Interests** | |
| Playing any sports, playing chess against others online, going out with friends | |
| **Relevant patterns of behavior/habits** | |
| * Is always focused on basketball, playing whenever he can * When not focused on basketball, he is playing chess instead | |
| **Goals and needs** | |
| * An app that will help organize and keep track of his assignments * A feature to help keep him focused on important tasks | |
| **Frustrations/Pain points** | |
| * Procrastination * Often forgets about assignments | |

#### Persona 2

|  |  |
| --- | --- |
| **Persona 2** | |
| **Name** | Emily Parker |
| **Location** | Santa Barbara, California, USA |
| **Occupation** | Undergraduate/Graduate student (19 years old) |
| **Bio** | |
| Emily is a 2nd year undergraduate student at Santa Barbara City College. She just completed her 1st year of college and is gearing up for the start of her 2nd year. Last year she did well, but not as well as she would have liked to and felt unorganized throughout the year. Her parents are also giving her less money and are expecting her to earn some money on her own this year. She is feeling stressed about all of this and so she decides to search for a productivity app this is going to help her manage this year of college with the addition of a job. | |
| **Skills** | |
| Crochet, organization (Clothes + Belongings), time management | |
| **Interests** | |
| Hiking, arts and crafts, go to the beach | |
| **Relevant patterns of behavior/habits** | |
| • Tendency to procrastinate occasionally  • Has a daily routine to follow by | |
| **Goals and needs** | |
| • Organize all her different tasks (school and work) in one space  • Track the amount of time that she is spending on each individual task  • Receiving daily updates to plan for the next coming day | |
| **Frustrations/Pain points** | |
| • The feeling of anxiety from information or task overload  • Easily interrupted and/or distracted by notification on her mobile device  • Has a lack of flexibility and panics in time of need for flexibility | |

#### Persona 3

|  |  |
| --- | --- |
| **Persona 3** | |
| **Name** | Carl Hayden |
| **Location** | Berkeley |
| **Occupation** | University student + employee of a company (22 years old) |
| **Bio** | |
| Carl is a 4th year university student who’s also working an internship at a nearby company. Since he is attending school while working at the same time, he has been struggling to keep track of his assignments and having trouble finishing them on time which is starting to affect his productivity at work. Carl believes that having an app to help him manage and keep track of his many different tasks will help him get his assignments done on time and help increase his productivity at work at the same time. In his free time, he enjoys watching sports epically football. | |
| **Skills** | |
| Computer proficient, spreadsheets, file management | |
| **Interests** | |
| Video games, watching sports in person, fantasy football, working out | |
| **Relevant patterns of behavior/habits** | |
| * Often forgets about assignment due dates causing assignments to be turned in late * Struggles with multitasking can only focus on one item at a time. * Keeps getting distracted by other things going on around him. | |
| **Goals and needs** | |
| * An app to help keep track of his assignments and work tasks * A way to distinguish tasks created for school and task created for his job | |
| **Frustrations/Pain points** | |
| * Keeping track of his school assignments and work tasks at the same time * Often forgets about upcoming deadlines * Handling Multiple tasks at once. | |

#### Persona 4

|  |  |
| --- | --- |
| **Persona 4** | |
| **Name** | Bianca Roselli |
| **Location** | San Francisco, California, USA |
| **Occupation** | Employee of a company (29 years old) |
| **Bio** | |
| Lives in a rented apartment of 2 rooms with her boyfriend who is a software developer in a US bank. She likes going out with her friends to restaurants to try new food. After a long day of work, she likes to play videogames with her boyfriend and watch any new series. | |
| **Skills** | |
| Proficient in product design related tasks, creative when drawing characters by hand, proficient when using Adobe stack. | |
| **Interests** | |
| Playing videogames, listening to podcasts, visit new restaurants and try foreign food, travel to different cities, indoor amateur gardening | |
| **Relevant patterns of behavior/habits** | |
| * She is with her laptop most of the time. She is normally working, listening to podcasts, or texting her friends. She feels comfortable using the laptop for job-related tasks and for reading websites. * If she is not in her laptop, she is using her iPhone (latest) to browse through the social media apps or check the news. Especially before going to sleep. * Since she is applying to do a master’s degree, she often checks her email and keeps track of her progress (documentation, exams, etc.). | |
| **Goals and needs** | |
| * She wants to use productivity apps since she thinks her situation is suitable for that. * She would like to stick to only one application, since she’s experienced troubles when trying to switch to another app. * She would like to see some type of metric of how much she has done for the day, so she can manage herself better. | |
| **Frustrations/Pain points** | |
| * Nowadays, she is always working and studying, so she feels overwhelmed with all the things she needs to finish. * She struggles using complex apps with too many features. She wants to do something, but she cannot find the proper way to do it in the sea of functionalities. | |

### User Stories

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Constraints** | **Priority\*** |
| PH-001 | As a registered user, I want to sign to my account, so that I can view all my tasks. | * The application should allow the user to login to its account. | [1] |
| PH-002 | As a user, I want to see a message if I enter wrong credentials, so that I know when my sign in attempt failed. | * The application should provide help messages if the user entered incorrect credentials. | [1] |
| PH-003 | As a user, I want to be able to reset my password if I forget it, so that I can regain access to my account. | * The application should provide an easy-to-use process to reset passwords. * The application should provide help messages if the user is stuck. | [1] |
| PH-004 | As a new user, I want to choose my own username and password when signing up, so that I can customize my sign-in credentials. | * The application should provide an easy-to-follow process when registering a user. | [1] |
| PH-005 | As a new user, I want to set my own basic information (name, birthday, etc.), so that I can personalize my profile. | * The application should provide simple steps when allowing a user to enter their basic information. | [2] |
| PH-006 | As an employee, I want to organize my work, so I can feel more in control. | * The application should have easy steps to register all required tasks. * The application should have a centralized view for all user’s work. | [1] |
| PH-007 | As a student, I want to view my progress, so I can measure my performance. | * The application should be easy to use when the user wants to track the progress of a specific task. * The application should display a dashboard with useful metrics. | [1] |
| PH-008 | As a student/employee, I want to map all my work, so I can check if I'm missing something. | * The application should allow a fast way to register tasks. * The application should provide a centralized view for all the user’s work. | [1] |

\* Priority: [1] High, [2] Medium, [3] Low

## Data Definitions

|  |  |
| --- | --- |
| **Entity** | **Description** |
| User | This table will store all the users that registered for the application. |
| Login/Logout | This table will store the login/logout attempts of all users |
| Task | This table will store all the tasks created in the app by users. |
| Category | This table will store all the categories that you can assign to your created tasks. Some values could be “work”, “study”, “personal”, etc. |
| Roles | This table will store all the roles for the users of the app. The two main roles will be “administrator” and “client”. |
| Search | The table will store any searchable functions of the app. |
| ActivityTracker | This table will store the activity tracker records of all users. Every user can create multiple records in this table. They will track the time of every task. |
| EODSummary | This table will store “End of Day” summary records of all users. |

## Functional requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Description** | **Priority\*** | **User Story** |
| 1 | User should be able to sign-up | [1] | PH-004 |
| 2 | User should be able to log into the system using their email address and password. | [1] | PH-001 |
| 3 | The system should be able to show an error message box when the user is not able to access its account | [2] | PH-002 |
| 4 | The system should be able to validate that the email address provided by user is syntax valid. (Must have @, a domain, etc.) | [1] | PH-004 |
| 5 | The system should be able to validate that the credentials provided by the user exists in the application’s database. | [1] | PH-001 |
| 7 | User should be able to reset their password. | [1] | PH-003 |
| 8 | The system should be able to show a confirmation/error message box when the password was/wasn’t reset successfully. | [2] | PH-003 |
| 9 | User should be able to set its profile (name, birthday, etc.) | [2] | PH-005 |
| 12 | User should be able to create a task including name, due date, priority, category, and notes. | [1] | PH-006 |
| 13 | The system should be able to show a confirmation/error message box when a task is/isn’t successfully created. | [2] | PH-006 |
| 15 | User should be able to edit a task. | [1] | PH-006 |
| 16 | The system should be able to show a confirmation/error message box when a task is/isn’t successfully edited. | [2] | PH-006 |
| 18 | User should be able to delete a task | [1] | PH-006 |
| 19 | The system should be able to show a confirmation/error message box when a task is/isn’t successfully deleted. | [2] | PH-006 |
| 21 | User should be able to see all tasks created in a table. | [1] | PH-008 |
| 22 | User should be able to browse the tasks by category. | [1] | PH-008 |
| 23 | User should be able to search a task by its name or code. | [2] | PH-008 |
| 25 | User should be able to keep track of the time spent in a task. | [1] | PH-007 |
| 26 | User should be able to start/stop a timer when keeping track of a specific task. | [1] | PH-007 |
| 28 | User should be able to check all time spent on specific tasks through multiple charts. | [1] | PH-007 |
| 29 | The system should be able to send/display the user an “End of the day” (EOD) summary including the tasks and time they spent. | [1] | PH-007 |

\* Priority: [1] High, [2] Medium, [3] Low

## Non-functional requirements

|  |  |  |
| --- | --- | --- |
| **Id** | **Category** | **Description** |
| 1 | Compatibility | The web application will work across different desktop browsers and is scalable on mobile browser |
| 2 | Development | Data will be stored in MySQL on our AWS deployment server. |
| 3 | Usability | The web application will have a clean and easy-to-use UI allowing users to easily find what they need. |
| 4 | Availability | Web applications pages should quickly render and have a quick response time to user actions |
| 5 | Performance | Web application server will be available to users about 98% of the time every day, there is at most 30 minutes of downtown per day. |
| 6 | Security | Data from web application will be securely sent to the server using HTTPS. |
| 7 | Fault tolerance | Web application can handle substantial amounts of traffic at any time. |
| 8 | Storage space | Web Applications will have the storage capacity to handle a substantial number of different user accounts and the capacity to handle substantial amounts of different tasks from each user account. |

## Competitive analysis

|  |  |  |  |
| --- | --- | --- | --- |
| **Features** | **Priority Hub** | **Microsoft To Do** | **TickTick** |
| To Do List | * Create Tasks * Set Due Date * Set Reminder * Timer | * Create Tasks * Due Date * Reminder * Steps * Share List * Groups | * Create Tasks * Reminder * Due Date * Folders * Share List * Calendar |
| Daily Summary | * Summary of work done that day * User can set time when summary is created | None | None |
| Price | Free | Free | * Free * Premium Upgrade |
| Dashboard view | Yes | No | Yes |
| Web App | Yes | Yes | Yes |
| Mobile App | No | Yes | No |

Our proposal is focused on individual tasks and studying. We found two apps that are like our app. Microsoft To-Do and TickTick are two apps we are basing our app on. We want to build off these two apps by adding features inspired by them and adding features they do not have. We want our app to be more focused for students or for any that needs a tool to help them study or work efficiently. Therefore, the features of an activity tracker and a daily summary will be essential to accomplish this.

## High-level system requirements

|  |  |  |
| --- | --- | --- |
| **Category** | **Type** | **Tool** |
| Cloud infrastructure | Cloud Server | AWS EC2 |
| Operating System and Version | Ubuntu Server 22.04 LTS |
| Database and Version Number | MySQL 8.0.33 |
| Web Server | Nginx 1.24.0 |
| Front-end technology | React |
| Libraries | Bootstrap, SweetAlert2 |
| Backend | Server-side language | NodeJS |
| Web application framework | Express |
| Project Management | Messaging/meeting application | Discord |
| PM application | Jira |
| Collaboration application | Confluence |
| File management | GitHub/OneDrive |
| IDEs | Code | VSCode |
| Database | MySQL Workbench |
| Other | Supported browsers | MS Edge (chromium), Google Chrome, Firefox, and Safari. |

## Team

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Role** | **Name** | **Study plan** |
| 1 | Team Lead | Luis Aguilar | * Complete application that supports basic CRUD operations and Bootstrap library * Configure cloud resources (EC2, DB, Web server) |
| 2 | Scrum Master | Tyler Tam | * Configure cloud resources (EC2, deployments) |
| 3 | GitHub Master | Trevor Eichler | * Complete REST API that supports CRUD operations * Configure data scheme in DB Server (main entities) |
| 4 | Front Lead | Andy Li | * Complete application that supports basic CRUD operations and Bootstrap library |
| 5 | Back Lead | Lam Tran | * Complete application that supports basic CRUD operations and Bootstrap library * Complete REST API that supports CRUD operations |

## Checklist

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Description** | **Status** | **Comments** |
| 1 | The team found a time slot to meet outside of the class. | DONE | Every Friday at 1pm through Discord. |
| 2 | Scrum Master shares meeting minutes with everyone after each meeting. | DONE |  |
| 3 | GitHub Master chosen | DONE | Trevor is the team’s GitHub Master. |
| 4 | Everyone sets up their local development environment from the team’s git repo. | DONE |  |
| 5 | The team decided and agreed together on using the listed SW tools and deployment server. | DONE |  |
| 6 | Team ready and able to use the chosen back/front-end frameworks. | DONE |  |
| 7 | Team lead ensured that all team members read the final M1 and agree/understand it before submission. | DONE | All team read the document. |