# Project Plan

## Team organization

| Name | Roles | Contact |
| --- | --- | --- |
| Hew Hao Yee | Programmer | 012-3369821 |
| HuangGuoYueYang | Front-end developer, Programmer | 011-36252865 |
| Rivaldi Purnama | UX Specialist, Technical writer | 011-54280401 |
| Chua Jun Jie | Programmer, Database Administrator | 017-7338896 |

Team members’ information

| Roles | Description and Responsibilities | |
| --- | --- | --- |
| Programmer | This role is responsible for the structure of coding, and documentation as well. For example, the programmer may insist that all the functions should be placed in one file instead of separating them.  Besides that, the programmer also checks the general cleanliness of the code of all members, and makes changes to the code if necessary. | |
| Front-end developer | The front-end developer has the final say on the design of the web application, such as UI design.  This role is in charge of the general flow of designing the web application among the team members, such as discussions will be held with the client, then discussion with team members, discussions of the difficulty of the tasks, and negotiations with the client again until a middle ground between the client and the team members is achieved. | |
| Technical writer | Technical writer is to take the technical instructions and word it in a simpler and a more user friendly manner, such as guides and instructions to use software for the client. | |
| UX Specialist | UX specialist focuses mainly on the user experience of the software. If anything, this role communicates more with the client about the flow when using the application. Then, the feedback is relayed to the front-end developer and programmer to see if such features and requirements are achievable. | |
| Database Administrator | Database administrator handles the structure and environment for storing the necessary files, such as product backlog, user stories, and more.  Typically, the database administrator has the final say on how and where to store the files so that it is efficient when accessing such files, and to maintain the cleanliness of the workspace. | |

Description of each roles and responsibilities

Team’s Process Model

Scrum is an agile methodology in project management. In scrum, there are three main phases: planning, sprints, and at last sprint review and retrospective.

For the planning phase, the team is gathered together to create user stories based on the requirements given by the client and product backlog to store the tasks created for each user story. Each user story can contain multiple tasks, varying in difficulties and priorities. Then, before a sprint starts, a sprint backlog is created to store all the tasks chosen to be completed during the sprint iself. When the sprint starts, no tasks can be added or be removed from the sprint backlog until the sprint ends. Each task is handled by one member of the team.

A sprint has a variety of durations, depending on the team. Usually, a sprint duration ranges from 1 week to 4 weeks. When the sprint is ongoing, a daily standup meeting is conducted every day to have a progress checkup among the team members. The meeting is short and direct, each member reports what they have done, and voice out any misunderstandings or difficulties found when implementing the tasks. Besides that, each team member has to log the time they spend on the task to keep track of the productivity of each member.

After the sprint ends, sprint review and retrospective are conducted. This is to look back at the performance of each team member during the sprints, and suggest improvements to it.

For our team, we decided to run a variant of Scrum. Instead of having daily standup meetings, we would have weekly online meetings, on Sunday 9pm. Not only that, we would have weekly Wednesdays physical meetings as well. This is to ensure everyone is on the same page, and has good communication with each other. Other than that, everything remains the same.

## Time and task tracking

Task allocation will be done on Asana. It has multiple features which allows us to easily create tasks and allocate them to members of the team. So we will be using Asana as our product backlog and team management. In assigning tasks, we will be looking at the strengths of each member and assign tasks according to their abilities and the projects’ needs by putting the members’ names on the tasks. After this, we will immediately set the priorities of each task and deadlines which would help us be more organized. Tasks with higher priorities will definitely be done first. Time Tracking will also be done via Asana because it offers multiple features that are easy to use which can help us manage our time carefully. We can do this by applying a time tracking extension. Time tracking on Asana allows each team member to be able to gauge their time and to know how long they have been working on a task, as they show us the length of the time that has passed since we started doing the specific task.

Git is a great convenience for our team. For example, if we commit a piece of code to the repository, and then commit another piece of code to the repository, we can do this locally if we want to go back to the previous version of the code. Moreover, git is a good tool to discuss the code. For each member of the team, there is a branch that belongs to ourselves, which we can edit, discuss and change the code in our own branch without messing up the code in the master branch. When we receive a new task and start a sprint, we will create a new branch from our own branch to do the task, by doing so, all team members can start their work at the first time. There is no need to wait for one member to finish his work before another team member starts, which greatly saves time and improves teamwork efficiency. Other than that, when the sprint ends, a meeting will be held for all members to merge the changes to git, this greatly reduces the probability of error and conflicts. In addition, we can make better improvements or changes to our work through discussion in the meeting, so as to produce a relatively perfect work.

## Definition of done

* Everyone in the team will do their respective tasks.
* Once they have done their work, every team member will upload their work to Git and have other members check.
* Everyone will check for requirements, whether it has fulfilled all requirements for a task and there are no missing features.
* Once we have ensured that everything works as intended on the web and the code runs without error, and we can then change the status of the task to “Done” on Asana.com
* “Done” is when the task is complete, as in there is no more missing requirement for each task, and no more changes are expected in the planning.

## Vision statement

For team management developers,

Who need to track the team’s progression on their projects,

AZUNYAN is a project management application that allows users to create and track each designated task in a project with ease.

Unlike mobile applications that have similar features, our product is a web based application that brings teams together in creating and managing product developments anywhere and in real time.

# Analysis of Alternatives

| **Programming Language** | **Familiarity** | **Experience** | **Compatibility with Web application** |
| --- | --- | --- | --- |
| Python | Hew Hao Yee  Chua Jun Jie  HuangGuoYueYang  Rivaldi Purnama | Hew Hao Yee  Chua Jun Jie  HuangGuoYueYang  Rivaldi Purnama | Hard to implement to a web application |
| JavaScript, HTML, CSS | Hew Hao Yee  Chua Jun Jie  HuangGuoYueYang | Hew Hao Yee  Chua Jun Jie  HuangGuoYueYang | Yes |
| Java | Hew Hao Yee  Chua Jun Jie  HuangGuoYueYang  Rivaldi Purnama | Hew Hao Yee  Chua Jun Jie  HuangGuoYueYang  Rivaldi Purnama | Hard to implement to a web application |

Comparison between programming languages

| **Factors** | **Web application** | **Mobile Application** | **Hybrid Application** |
| --- | --- | --- | --- |
| Users Access | Application will be able to be access by anyone that has an internet connection | Developed for only one single platform and can only be access on selected platform | Similar to developing a mobile application, the code to develop an application on Android and on iOS is different. |
| Performance | Performance will based solely on the internet connection and browser | Performance will based solely on the user’s mobile phone | Performance is better compared to performance on mobile applications, as the application contains a lightweight of native shell, the rest is on the web. |
| Code Maintenance | Code will be able to use in a wide range of browser | Common code will not be able to be used between different types of mobile (Android/IOS) | Common code will not be able to be used between different types of mobile (Android/IOS) |
| User interface | Web application will have to be design accurately due to the different aspect ratio its has to display on | There will be restriction as many mobile have different aspect ratio and is less standard, hence more issue will arise | There will be restriction as many mobile have different aspect ratio and is less standard, hence more issue will arise |

Comparison between platforms for applications

# For this project, we as a team of four must produce a project management software for our client. We have decided to use JavaScript as our main programming language, as most of us are familiar with the language and have experience working with it on previous projects. Other than that, through multiple client interviews, we found out that our client would mostly be working on a laptop and have constant access to an internet connection, but at times may want access to the software through a mobile phone, hence we have concluded that creating a web application would best suit the criteria given by our client.

# This played a part in our decision making for the programming language to use, as JavaScript allows you to build a highly interactive web app while helping its speed, functionality, user experience and many more. All these benefits of using JavaScript would be helpful in creating a better work management software app, as compared to Python and Java. Furthermore, JavaScript has more complete libraries for building web applications, and has more available resources online that are easily accessible.

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# Risk Register

| Risk Description | Impact | Likelihood | Strategies for monitoring | Owner | Strategies for mitigation |
| --- | --- | --- | --- | --- | --- |
| Team members suffering from severe illness/injury | Disrupt the overall workflow of the project | Low | Be cautious of our health and overall surroundings | Hew Hao Yee or Chua Jun Jie or Rivaldi Purnama or HuangGuoYueYang | The team should help in completing the tasks of that team member |
| Client dissatisfaction with the product | Any progress made up to that point will need to be amended | High | Have frequent meetings to check with one another about the clients preferences | Chua Jun Jie | Have constant client interviews with the client to have them check up on the progress |
| Team member’s device failing, resulting in lost of files | Sets back the overall progression of the team | Low | Remind other team members to push their progress in git | HuangGuoYueYang | Use git branching and constantly push updates to git to |
| Server failing | Web application will not be accessible during that time | Medium | Have frequent server maintenance | Hew Hao Yee | One of the team member’s device will be used to host the web application temporarily |
| Git server crashed unexpectedly | Each of team members’ progress cannot be updated to the server | Low | Look out for announcements regarding the git servers | Hew Hao Yee, Chua Jun Jie, Rivaldi Purnama, and HuangGuoYueYang | Each members has a updated copy of the master code stored locally |
| Power cut across whole nation | No progress can be made | Very unlikely | See if your fan is spinning in your place, wifi is down | Hew Hao Yee | Pay taxes |
| Legal pursuit for copyright infringement of code | Entire project will be compromised | Very unlikely | Check for plagiarism of the code once in a while | Rivaldi Purnama | Paraphrase the code, cross referencing the codes found online |