



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IBM NALAIYA THIRAN PROJECT

Project Planning Phase

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|---------------|--|
| Date | 21 October 2022 |
| Team ID | PNT2022TMID03479 |
| Project Name | IoT Based Smart Crop Protection System for Agriculture |
| Maximum Marks | 8 Marks |

Project Planning (Product Backlog, Sprint Planning, Stories, story points)

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points (40) | Priority (Low to High) | Team Members |
|----------|-------------------------------|-------------------|---|-------------------|------------------------|--------------------|
| Sprint-1 | Registration | USN-1 | As a user, I can register for the required dataset by entering my email, password, and confirming my password. | 3 | High | R Bhargavi |
| Sprint-1 | | USN-2 | As a user, I will receive confirmation email and the SMS once I have registered for the application | 2 | High | R Bhargavi |
| Sprint-2 | Cloud services | USN-3 | As a user, I can register for the application through Facebook or any social media | 1 | Low | S Meghana |
| Sprint-4 | | USN-4 | As a user, I can register for the application through Gmail/web service | 2 | Medium | Abhishek |
| Sprint-3 | Login | USN-5 | As a user, I can log into the application network by entering email & password | 4 | High | Aakash V |
| Sprint-2 | Pre processing | USN-6 | As a farmer, the user must be able to find the system easy to access so pre-processes and other task must be perfect. | 3 | High | S Meghana |
| Sprint-1 | Collecting Dataset | USN-7 | To collect various sources of animal threats and keep developing a dataset. | 3 | Medium | R Bhargavi |
| Sprint-4 | Integrating | USN-8 | To integrate the available dataset and keep improving the accuracy of finding animals | 2 | High | Abhishek |
| Sprint-3 | | USN-9 | To find and use appropriate compiler to run and test the data so that we can implement our program | 1 | Low | Aakash V |
| Sprint-2 | | USN-10 | Request Saveetha Engineering College to deploy the project in our campus and test | 1 | Low | S Meghana |
| Sprint-1 | Training | USN-11 | As programmer, we need to train our data perfectly so that the program runs smoothly | 3 | High | R Bhargavi |
| Sprint-3 | | USN-12 | Train the data using out available services and IBM dataset from server and improve that | 2 | Medium | Aakash |
| Sprint-4 | Coding | USN-13 | To modify the code according to our program and improve the efficiency of that code | 4 | High | Abhishek |
| Sprint-2 | | USN-13 | To improve performance | 1 | Low | S Meghana |
| Sprint-2 | Record | USN-5 | To record the data and plot the graph to show the characteristics officially | 4 | High | S Meghana |
| Sprint-1 | Planning | USN-4 | Plan the programming language and feasibility | 3 | Medium | Bhargavi, Abhishek |
| Sprint-4 | | USN-14 | Demonstrate the working and improve accuracy overall | 2 | Low | Abhishek |

Project Tracker, Velocity & Burndown Chart: (4 Marks)

| Sprint | Total Story Points | Duration | Sprint Start Date | Sprint End Date (Planned) | Story Points Completed (as on Planned End Date) | Sprint Release Date (Actual) |
|----------|--------------------|----------|-------------------|---------------------------|---|------------------------------|
| Sprint-1 | 20 | 5 Days | 20 Oct 2022 | 24 Oct 2022 | 20 | 21 Oct 2022 |
| Sprint-2 | 20 | 5 Days | 25 Oct 2022 | 29 Oct 2022 | 20 | 27 Oct 2022 |
| Sprint-3 | 20 | 5 Days | 31 Oct 2022 | 4 Nov 2022 | 20 | 2 Nov 2022 |
| Sprint-4 | 20 | 7 Days | 5 Nov 2022 | 11 Nov 2022 | 20 | 8 Nov 2022 |

Velocity:

We have a 23-day sprint duration, and the velocity of the team is 20 (points per sprint).

To Find: Calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{23}{20} = 1.15$$

Burndown Chart:

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

Project: IoT Based Smart Crop Protection System for Agriculture

