

PROJECT PLANNING PHASE

PROJECT PLANNING TEMPLATE (PRODUCT BACKLOG, SPRINT PLANNING, STORIES, STORY POINTS)

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| TEAM ID | PNT2022TMID44357 |
| PROJECT DOMAIN | INTERNET OF THINGS |
| PROJECT TITLE | IoT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE |
| DATE | 20 OCTOBER 2022 |
| MAXIMUM MARKS | 8 MARKS |

PRODUCT BACKLOG, SPRINT SCHEDULE, AND ESTIMATION (4 MARKS)

Use the below template to create product backlog and sprint schedule

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|-------------------------------|-------------------|---|--------------|----------|---------------|
| Sprint-1 | IBM Cloud Services | USN-1 | Create a Cloud Account in IBM | 10 | High | Whole Team |
| | Software | USN-2 | Install the Python IDE | 5 | Medium | A Deepika |
| | Clarifai | USN-3 | Create an Account in Clarifai (To detect the animals and birds we are using an open-source platform Clarifai.) | 5 | High | N L Pooja |
| Sprint-2 | IBM Watson Platform | USN-4 | Create IBM Watson IoT Platform and Device (It acts as the mediator to connect the web application to IoT device) | 5 | High | S Sakthi |
| | Node Red Services | USN-5 | Create Node Red Services (To Create a Web Application) | 5 | High | M S Swasthika |
| | Cloudant DB | USN-6 | Create a Database in Cloudant DB (To Store the Image URL, Launch the Cloudant DB) | 5 | High | A Deepika |
| | Cloud Object Storage | USN-7 | Create a Cloud Object Storage Service | 5 | High | N L Pooja |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|-------------------------------|-------------------|--|--------------|----------|---------------------------|
| Sprint-3 | Python Code | USN-8 | Develop a Python Script | 20 | High | S Sakthi M S Swasthika |
| Sprint-4 | Web UI(User Interface) | USN-9 | Develop a Web Application using Node-RED Service. (Display the image in the Node-RED web UI and also display the temperature, humidity, and soil moisture levels.) | 20 | High | M S Swasthika |

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 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 20 | 29 Oct 2022 |
| Sprint-2 | 20 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 20 | 05 Nov 2022 |
| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 20 | 12 Nov 2022 |
| Sprint-4 | 20 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 20 | 19 Nov 2022 |

VELOCITY:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \text{Sprint Duration} / \text{Velocity} = 24/20 = 1.2$$

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.

