

Project Planning Phase

Project Planning Template (Product Backlog, Sprint Planning, Stories, Storypoints)

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| Date | 06 November 2022 |
| Team ID | PNT2022TMID01100 |
| Project Name | Project –Signs with smart connectivity for better road safety. |
| 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 | Creating resources | USN-1 | Keep the resources ready in order to start the project. Resources like crating account in IBM cloud and open weather API etc.... | 1 | Low | 1.Pappu venkatasai kumar 2.Praneesh 3.Prathiyunan 4.Ragavan |
| Sprint-1 | Simulation Creation | USN-2 | Connect sensors to the Arduino or esp. in orderto create simulation | 2 | Medium | 1.Pappu venkatasai kumar 2.Praneesh 3.Prathiyunan 4.Ragavan |
| Sprint-1 | Code Script | USN-3 | Write python script to get values from Arduino oresp. | 2 | High | 1.Pappu venkatasai kumar 2.Praneesh 3.Prathiyunan 4.Ragavan |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|---------------|--------------------------------------|--------------------------|---|---------------------|-----------------|--|
| Sprint-2 | Cloud | USN-4 | Create a cloud account . open account in IBM Watson IoT platform, and create node red services . | 2 | Medium | 1.Pappu venkatasai kumar 2.Praneesh 3.Prathiyunan 4.Ragavan |
| Sprint-2 | Connect IBM cloudand python script. | USN-5 | Connect connection between python script and IBM Watson IoT platform. Publish and subscribe the data between script and IoT platform. | 2 | High | 1.Pappu venkatasai kumar 2.Praneesh 3.Prathiyunan 4.Ragavan |
| Sprint-3 | MIT app inventor | USN-6 | Using MIT app inventor developing the application. | 2 | High | 1.Pappu venkatasai kumar 2.Praneesh 3.Prathiyunan 4.Ragavan |
| Sprint-3 | Testing | USN-7 | Testing the Application | 2 | Medium | 1.Pappu venkatasai kumar 2.Praneesh 3.Prathiyunan 4.Ragavan |
| Sprint-4 | Web ui | USN-8 | User interface with the software. | 2 | High | 1.Pappu venkatasai kumar 2.Praneesh 3.Prathiyunan 4.Ragavan |

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 | 15 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 15 | 29 Oct 2022 |
| Sprint-2 | 15 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 15 | 05 Nov 2022 |
| Sprint-3 | 15 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 15 | 12 Nov 2022 |
| Sprint-4 | 15 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 15 | 19 Nov 2022 |
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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)

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

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.

<https://www.visual-paradigm.com/scrum/scrum-burndown-chart/>

<https://www.atlassian.com/agile/tutorials/burndown-charts>

Reference:

<https://www.atlassian.com/agile/project-management>

<https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software>

<https://www.atlassian.com/agile/tutorials/epics>

<https://www.atlassian.com/agile/tutorials/sprints>

<https://www.atlassian.com/agile/project-management/estimation>

<https://www.atlassian.com/agile/tutorials/burndown-charts>