

Project Planning Phase

Project Planning

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| Domain | IOT |
| Team ID | PNT2022TMID51070 |
| Project Name | Project - INDUSTRY-SPECIFIC INTELLIGENT FIRE MANAGEMENT SYSTEM |
| Maximum Marks | 8 Marks |

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

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|---|-------------------|--|--------------|----------|---|
| Sprint-1 | Sensing | USN-1 | Use the sensors to sense the surroundings. | 3 | High | Giritharan Aravind Chidambaranathan Arumugaviswanathan |
| | Operating | USN-2 | Activating the fire sprinkler system and exhaust fan in case of a fire | 3 | Medium | Giritharan Aravind Chidambaranathan Arumugaviswanathan |
| Sprint-2 | Sending collected data to the IBM Watson platform | USN-3 | Sending IBM Watson the data from the sensors. | 3 | High | Giritharan Aravind Chidambaranathan Arumugaviswanathan |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|-------------------------------|-------------------|---|--------------|----------|---|
| | Node red | USN-4 | Data transmission from IBM Watson to Node Red. | 3 | High | Giritharan Aravind Chidambaranathan Arumugaviswanathan |
| Sprint-3 | Storing of sensor data | USN-5 | Keeping data in a Cloudant database. | 2 | Medium | Giritharan Aravind Chidambaranathan Arumugaviswanathan |
| | Registration | USN-6 | My email and password are being entered to confirm the authentication process. | 1 | Medium | Giritharan Aravind Chidambaranathan Arumugaviswanathan |
| | Web UI | USN-7 | Keeps track of environmental conditions and presents sensor data. | 3 | High | Giritharan Aravind Chidambaranathan Arumugaviswanathan |
| Sprint-4 | Fast SMS Service | USN-8 | When parameters like temperature, flame, and gas sensor readings exceed the threshold value, use Fast SMS to send an alarm message. | 3 | High | Giritharan Aravind Chidambaranathan Arumugaviswanathan |
| | Turn ON/OFF the actuators | USN-9 | In that case, the user has the option to turn off both the sprinkler system and the exhaust fan. | 2 | Medium | Giritharan Aravind Chidambaranathan Arumugaviswanathan |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|--------|-------------------------------|-------------------|---|--------------|----------|---|
| | Testing | USN-10 | Project and final deliverables testing. | 1 | Low | Giritharan Aravind Chidambaranathan Arumugaviswanathan |

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 | 6 | 6 Days | 13 NOV 2022 | 19 NOV 2022 | 6 | 19 Oct 2022 |
| Sprint-2 | 6 | 6 Days | 13 NOV 2022 | 19 NOV 2022 | 6 | 19 NOV 2022 |
| Sprint-3 | 6 | 6 Days | 13 NOV 2022 | 19 NOV 2022 | 6 | 19 NOV 2022 |

| 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-4 | 6 | 6 Days | 13 NOV 2022 | 19 NOV 2022 | 6 | 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)

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

