**Project Planning Phase**
**Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)**

| | |
|---|---|
| Date | 18 October 2022 |
| Team ID | **PNT2022TMID13407** |
| Project Name | Real Time River Water Quality Monitoring and Control 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 | Registration | USN-1 | As a user, I can register for the application by entering my email, password, and confirming my password. | 2 | High | Kaviya<br>Gobika |
| Sprint-1 | | USN-2 | As a user, I will receive confirmation email once I have registered for the application | 1 | High | Kavipriya<br>Brundhalakshmi |
| Sprint-1 | | USN-3 | As a user, I can register for the application through Facebook | 2 | Low | Kaviya<br>Brundhalakshmi |
| Sprint-1 | | USN-4 | As a user, I can register for the application through Gmail | 2 | Medium | Gobika<br>Kavipriya |
| Sprint-1 | Login | USN-5 | As a user, I can log into the application by entering email & password | 1 | High | Kaviya<br>Brundhalakshmi |
| | Dashboard | | | | High | |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|---|---|---|---|---|---|---|
| Sprint -2 | User interface experience | USN-6 | As a user I need a proper user interface for the project which was contain the graphical representation of received data from the sensors | 2 | High | Kavipriya<br>Kaviya |
| Sprint -2 | | USN-7 | As a user, I can create a IBM cloud account for the data base which should able to store the data and gather the data from the sensors | 1 | Medium | Gobika<br>Brundhalakshmi |
| Sprint -2 | | USN-8 | As I a user I can create node-red app for providing commands to the sensors in the IBM cloud | 2 | Medium | Brundhalakshmi<br>Kaviya<br>Gobika |
| Sprint -2 | | USN-9 | As a user, I can create IOT Watson assistant for converting the sensors data to the digital data | 2 | Low | Gobika<br>Kavipriya<br>Kaviya |
| Sprint -2 | | USN-10 | As a user, I can create a fast to SMS app For providing alert the user which consuming water was not have the quality of consumable | 1 | High | Kaviya<br>Brundhalakshmi |
| Sprint -2 | | USN-11 | As I a user, I can make cloudant data base in the IBM cloud for storing the data from the sensors for future references | 2 | High | Gobika<br>Kaviya |
| Sprint -3 | App interface creation | USN-12 | As I a user, I can use the MIT APP INVERTER for creating the user interface which contains interface between of IBM cloud | 1 | Medium | Kavipriya<br>Gobika<br>Brundhalakshmi |
| Sprint -3 | | USN-13 | As I am a user, I can create a dashboard which was containing graphical representing the sensors measurements | 1 | Medium | Brundhalakshmi<br>Gobika |
| Sprint -3 | | USN-14 | As I am a user, I can save or delete the previous measurements which was contain the sensor measurements | 2 | High | Kavipriya<br>Kaviya |
| Sprint -3 | | USN-15 | As I am a user, I need the devices was properly insulated and the devices was must be a water resistant | 2 | High | Gobika<br>Kavipriya |
| Sprint -3 | | USN-16 | As I am a user, I can create the devices which was implemented in the project should be | 1 | Low | Brundhalakshmi<br>Kaviya |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|---|---|---|---|---|---|---|
| | | | maintain properly with the particular interval of time | | | |
| Sprint -3 | | USN-17 | As I am a user, I need a simultaneous data collecting data from the sensors and also save the received data to the cloudant /cloud dashboard | 2 | Low | Kaviya<br>Kavipriya |
| Sprint -3 | | USN-18 | As a user, I can manage the devices which was implemented in the project | 1 | High | Kaviya<br>Gobika |
| Sprint -3 | User development | USN-19 | As a admin, I can manage all the devices and find the drawbacks and also rectify that | 1 | High | Brundhalakshmi<br>Kaviya |
| Sprint -3 | | USN-20 | As a admin, I can manage the devices which was not working not properly I should replace that device | 1 | Medium | Gobika<br>Kavipriya |
| Sprint -3 | | USN-21 | As a admin, I can monitor the devices which was sending the correct data or not | 1 | Low | Gobika<br>Kaviya |
| Sprint -3 | | USN-22 | As a admin, I can make changes in the user interface which was able to understand the measurements was easily understandable by user/industry person | 2 | High | Gobika<br>Brundhalakshmi |
| Sprint -4 | User command centre | USN-23 | As a admin, I can create the command option in the user interface and able to perform the devices based on the commands | 2 | High | Kavipriya<br>Kaviya |
| Sprint -4 | | USN-24 | As a user, I can give the command to the device which was already able understand the command and also perform the function which was mention in the command | 2 | Medium | Kavipriya<br>Gobika |
| Sprint -4 | | USN-25 | As a user, I can need user interface was always be an eco-friendly which was designed in the user interface | 2 | Medium | Kavipriya<br>Brundhalakshmi |
| Sprint -4 | | USN-26 | As a user, I need a user interface which was contains HTTP command format and also should contain the web page interface | 1 | High | Kavipriya<br>Kaviya |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|---|---|---|---|---|---|---|
| Sprint -4 | | USN-27 | As a user, I can make the measurements was also capable to know the web interface | 1 | Low | Brundhalakshmi Kavipriya |
| Sprint -4 | | USN-28 | As a user, I need a proper statement of the measurements of the data and also | 1 | Low | Brundhalakshmi Kaviya |

**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:**

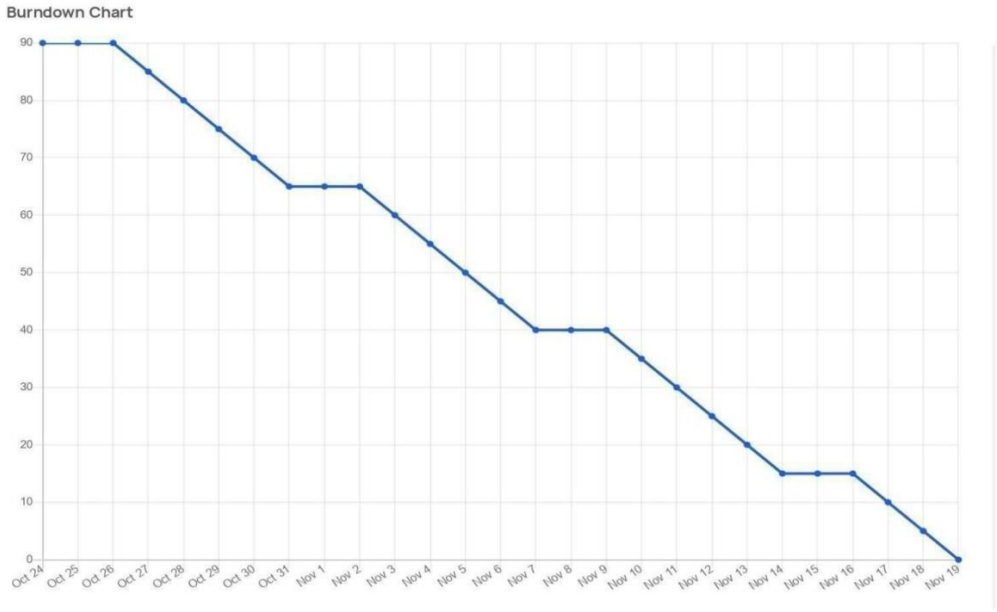
Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

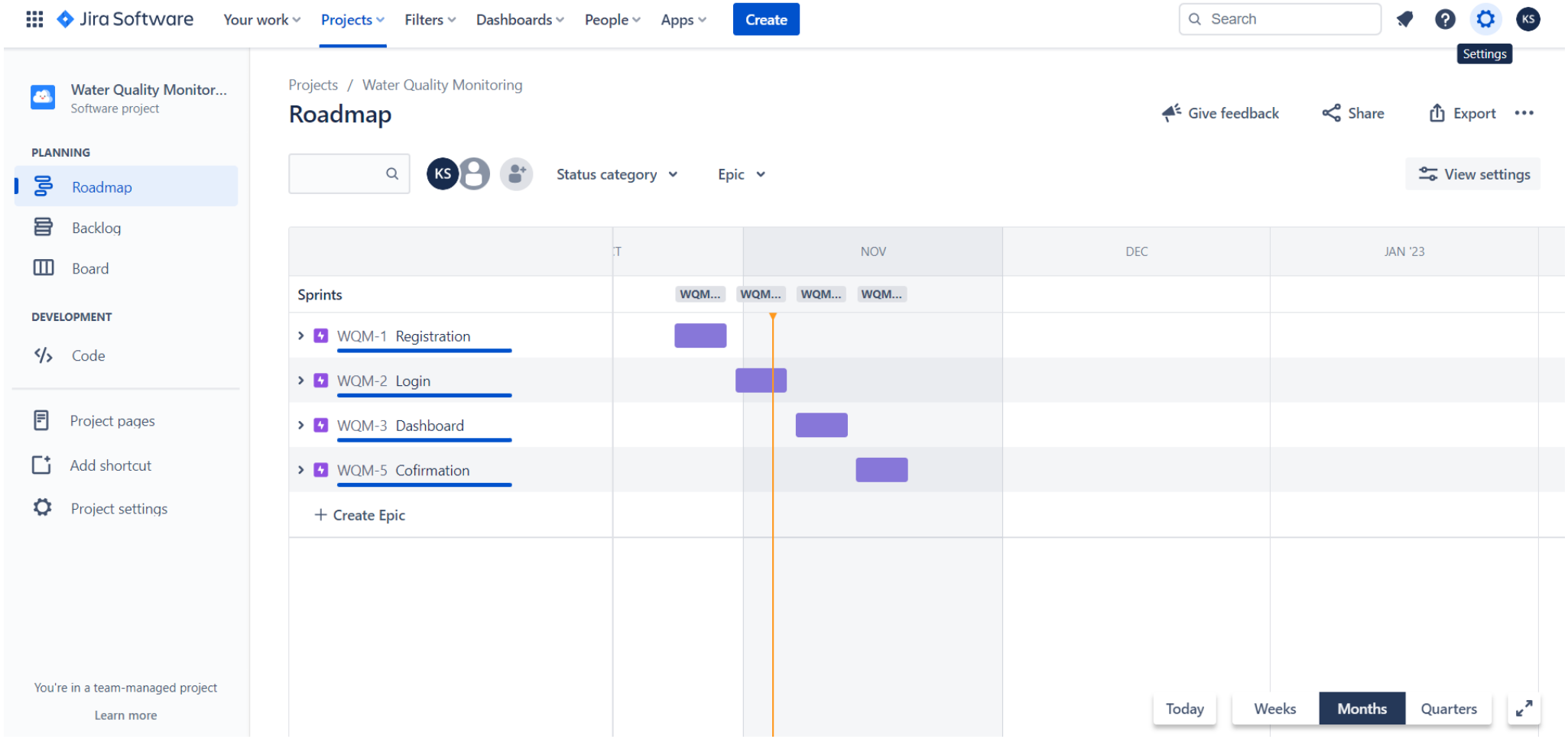
$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

**The average velocity (AV) per iteration unit =3.33**

**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.




Jira Software
Your work
Projects
Filters
Dashboards
People
Apps
Create
Search
Settings
KS
Water Quality Monitor...
Software project
PLANNING
Roadmap
Backlog
Board
DEVELOPMENT
Code
Project pages
Add shortcut
Project settings
You're in a team-managed project
Learn more
Projects / Water Quality Monitoring
Roadmap
Give feedback
Share
Export
Status category
Epic
View settings
NOV
DEC
JAN '23
Sprints
WQM...
WQM...
WQM...
WQM...
WQM-1 Registration
WQM-2 Login
WQM-3 Dashboard
WQM-5 Cofirmation
Create Epic
Today
Weeks
Months
Quarters