

## Project Planning Phase

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

|               |   |
|---------------|---|
| Date          | 27 October 2022   |
| Team ID       | PNT2022TMID026770   |
| Project Name  | Natural disasters intensity analysis and classification using artificial intelligence |
| 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 that.   | 2            | Low      | Mageswari     |
| Sprint-1 |                                 | USN-2             | As a user, I will receive confirmation email once I have registered for the application.             | 3            | High     | Manimegalai   |
| Sprint-1 | Login                           | USN-3             | As a user, I adapt to logging into the system with credentials.                                      | 2            | Low      | Lakshmi priya |
| Sprint-1 | Designation of Region           | USN-4             | As a user, I can collect the dataset and select the region of interest to be monitored and analyzed. | 5            | Medium   | Jeevitha      |
| Sprint-1 | Analysis of required phenomenon | USN-5             | As a user, I can regulate certain factors influencing the action and report on past event analysis.  | 4            | High     | Mageswari     |
| Sprint-1 | Algorithm selection             | USN-6             | As a user, I can choose the required algorithm for specific analysis.                                | 4            | Medium   | Manimegalai   |
| Sprint-1 | Training and Testing            | USN-7             | As a user, I can train and test the model using the algorithm.                                       | 4            | High     | Lakshmi priya |
| Sprint-1 | Detection and analysis of data  | USN-8             | As a user, I can detect and visualize the data effectively.  | 4            | High     | Jeevitha      |

|          |   |        |   |   |        |               |
|----------|---|--------|---|---|--------|---------------|
| Sprint 2 | Create and configure IBM cloud services   | USN-9  | As a user I need to enroll the cloud registration   | 3 | Medium | Mageswari     |
| Sprint 2 |   | USN-10 | As a user, I will create IBM cloud Account Watson AI platform by accessing cloud account            | 7 | High   | Manimegalai   |
| Sprint 2 |   | USN-11 | After creating node get device type and id  | 1 | Low    | Lakshmi priya |
| Sprint 2 |   | USN-12 | Simulate the node created   | 3 | Medium | Jeevitha      |
| Sprint 3 | Create a database in Cloud DB             | USN-13 | Launch the cloud DB and create database to store the location data                                  | 4 | High   | Mageswari     |
| Sprint 3 | Develop the Python script                 | USN-14 | Install the python software   | 2 | Low    | Manimegalai   |
| Sprint 3 |   | USN-15 | Develop the python flask to publish details to IBM AI platform                                      | 6 | High   | Lakshmi priya |
| Sprint 3 |   | USN-16 | Integrate the device ID , authentication token in python flask                                      | 2 | Low    | Jeevitha      |
| Sprint 3 |   | USN-17 | Develop the python code for publishing the location (latitude & longitude) to IBM AI platform       | 8 | High   | Mageswari     |
| Sprint 4 | Create the Web application using node Red | USN-18 | As a user, I can build with the web application.  | 5 | High   | Manimegalai   |
| Sprint 4 |   | USN-19 | Connect the IBM AI platform and get the location and store the data in the cloud                    | 2 | Medium | Lakshmi priya |
| Sprint 4 |   | USN-20 | Create the multilayered deep convolution neural network mode that tells the intensity of disaster a | 8 | High   | Jeevitha      |

|          |  |        |   |   |      |           |
|----------|--|--------|---|---|------|-----------|
| Sprint 4 |  | USN-21 | Send the notification is the web cam to capture the video frame | 4 | High | Mageswari |
|----------|--|--------|---|---|------|-----------|

### 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       | 31 Oct 2022               | 20  | 31 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)

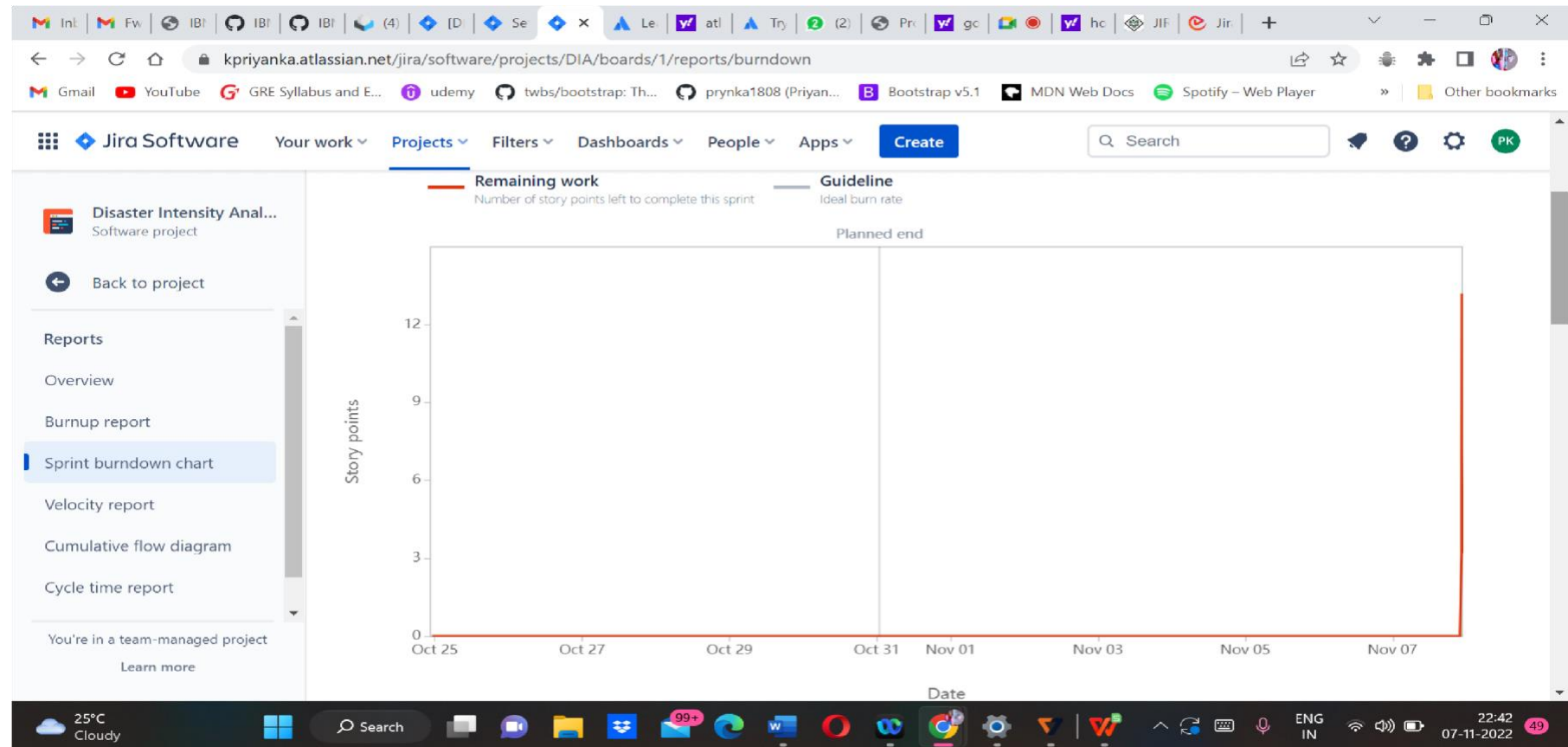
$$\text{Average velocity} = \text{Sprint duration} / \text{velocity} = 20/6 = 3$$

| Sprint       | Total Story Points | Duration | Average Velocity |
|--------------|--------------------|----------|------------------|
| Sprint-1     | 28                 | 6        | 4.6              |
| Sprint-2     | 14                 | 6        | 2.3              |
| Sprint-3     | 22                 | 6        | 3.6              |
| Sprint-4     | 19                 | 6        | 3.1              |
| Total Sprint | 83                 | 24       | 3.4              |

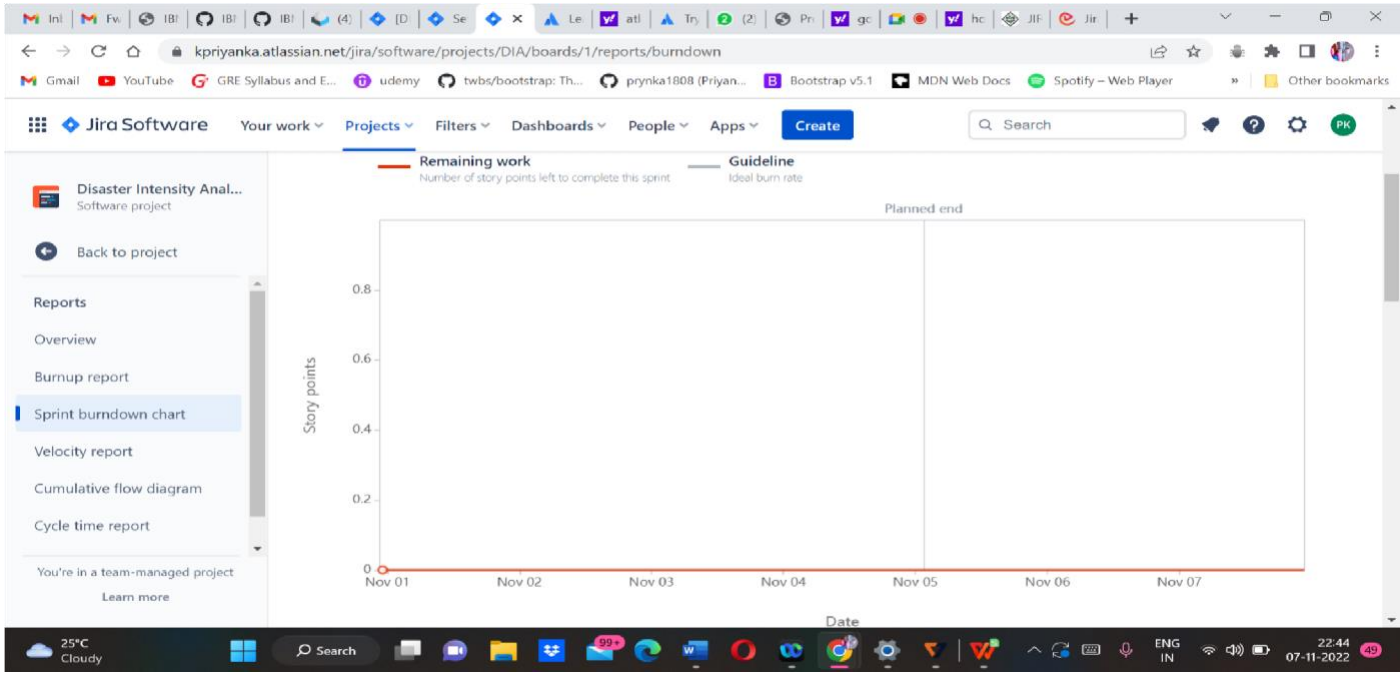
## Burndown Chart:

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.

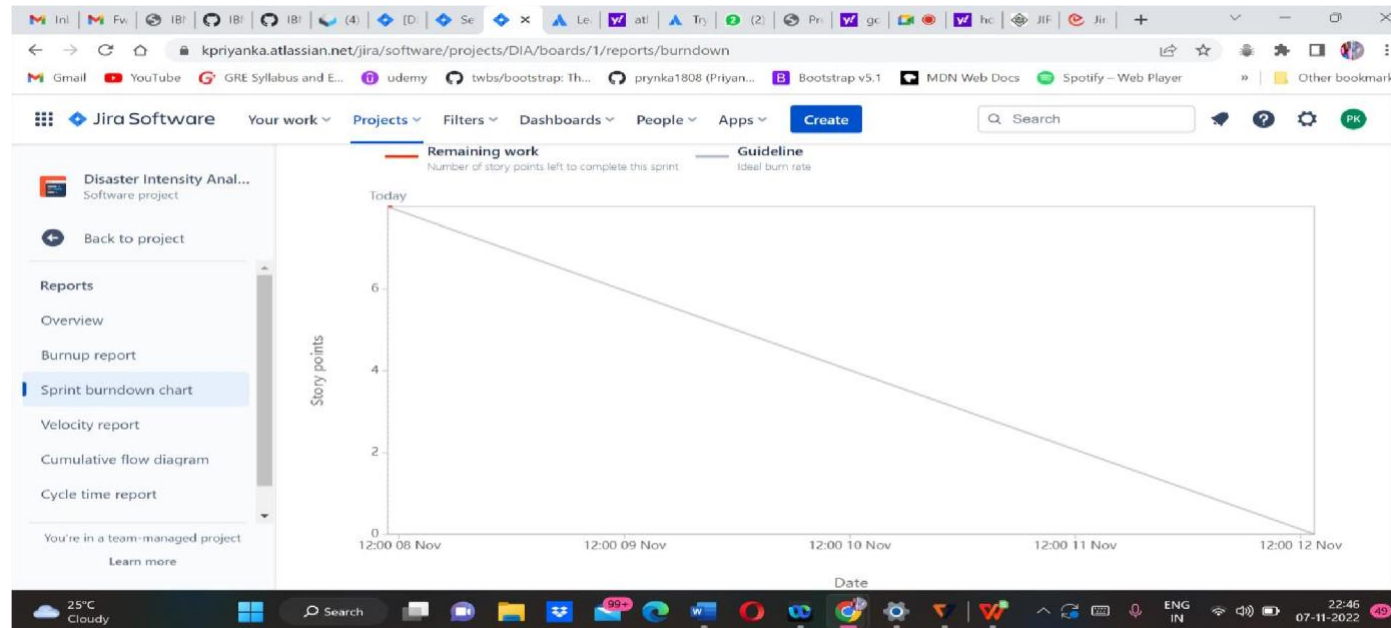
### Sprint-1:



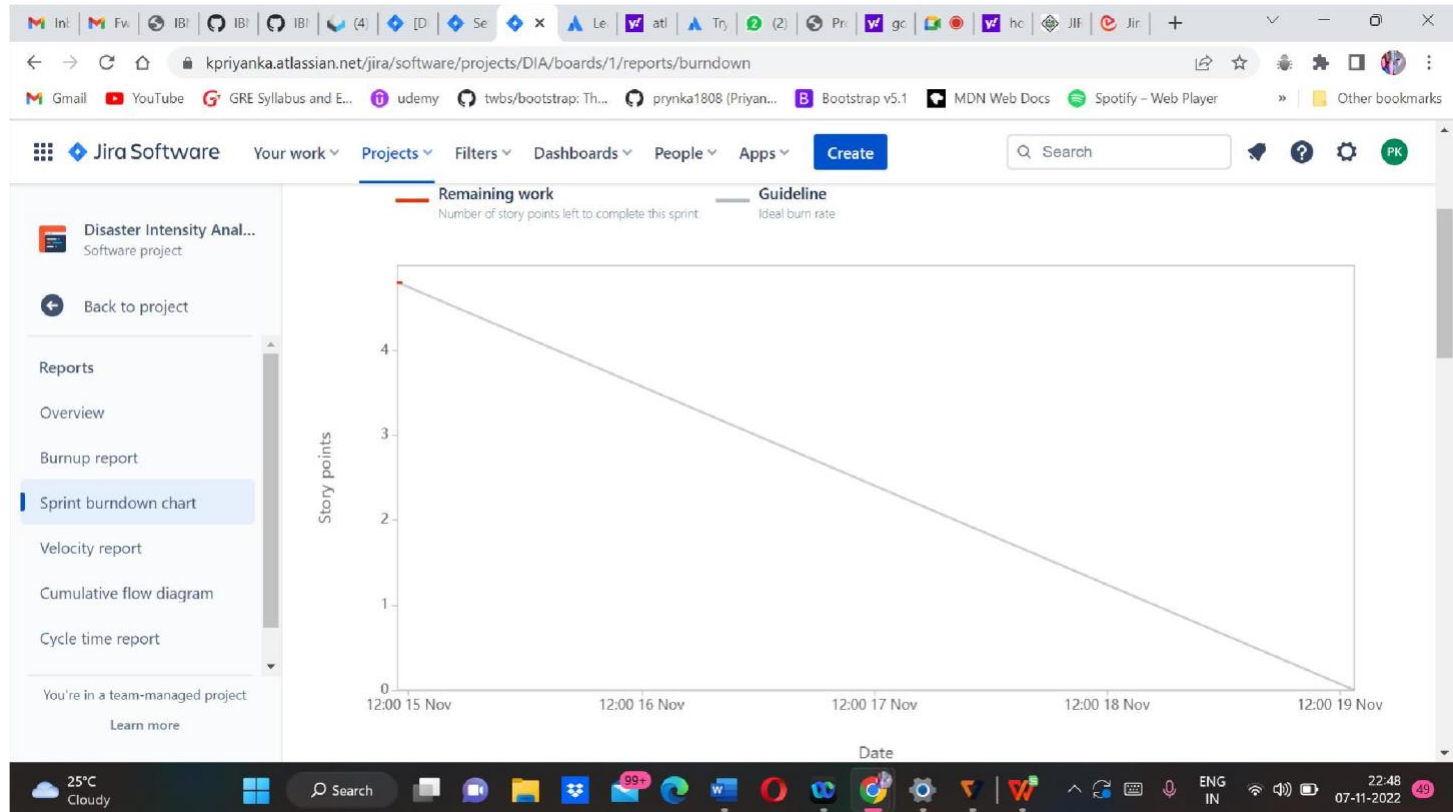
Sprint-2:



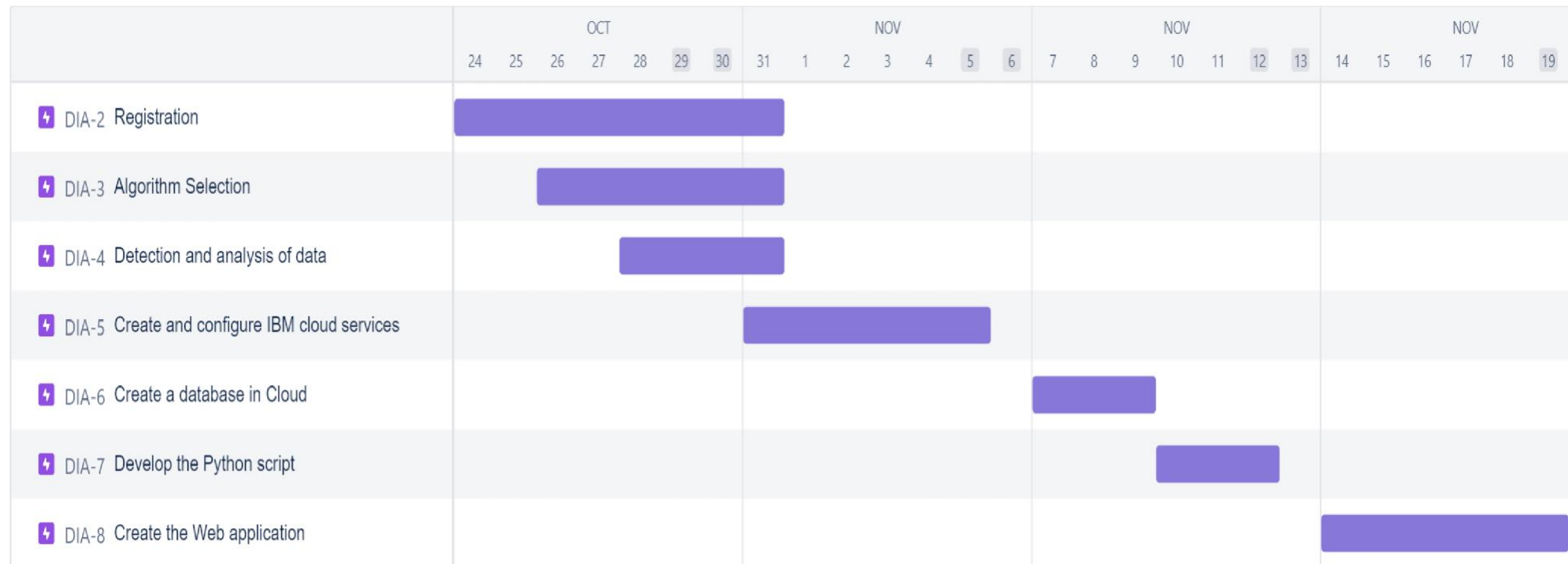
Sprint-3:



Sprint-4:



RoadMap:



Back Log:

Sprint-1:



PK

P

Epic

Insights

▼ DIA Sprint 1 24 Oct – 31 Oct (3 issues)

03.28

Complete sprint

...

☒ DIA-9 Registration REGISTRATION3.2IN PROGRESS▼P

☒ DIA-11 Detection and analysis of data DETECTION AND ANALYSIS OF DATA4DONE▼PK

☒ DIA-13 Algorithm Selection ALGORITHM SELECTION4DONE▼

+ Create issue

### Sprint-2:

PK

P

Epic

Insights

▼ DIA Sprint 2 31 Oct – 5 Nov (1 issue)

004

Complete sprint

...

☒ DIA-14 Create and configure IBM cloud services CREATE AND CONFIGURE IBM CLO...4DONE▼

+ Create issue

### Sprint-3:

PK

P

Epic ▾

Insights

▼ DIA Sprint 3 7 Nov – 12 Nov (2 issues)

080 Complete sprint ⋮

☒ DIA-16 Create a database in Cloud 

CREATE A DATABASE IN CLOUD

4 IN PROGRESS ▾ PK

☒ DIA-17 Develop python script 

DEVELOP THE PYTHON SCRIPT

4 IN PROGRESS ▾

+ Create issue

#### Sprint-4:

PK

P

Epic ▾

Insights

▼ DIA Sprint 4 14 Nov – 19 Nov (1 issue)

4.800 Complete sprint ⋮

☒ DIA-18 Create the Web application using node Red 

CREATE THE WEB APPLICATION

4.8 TO DO ▾

+ Create issue

#### Board:

| TO DO 1 ISSUE   | IN PROGRESS 3 ISSUES   | DONE 3 ISSUES ✓   | + |
|---|--|---|---|
| <div>Create the Web application using node Red</div> <div>CREATE THE WEB APPLICATION</div> <div><input checked="" type="checkbox"/> DIA-18 4.8 </div> | <div>Registration</div> <div>REGISTRATION</div> <div><input checked="" type="checkbox"/> DIA-9 3.2 </div> <div>Create a database in Cloud</div> <div>CREATE A DATABASE IN CLOUD</div> <div><input checked="" type="checkbox"/> DIA-16 4 </div> | <div>Detection and analysis of data</div> <div>DETECTION AND ANALYSIS OF DATA</div> <div><input checked="" type="checkbox"/> DIA-11 ✓ 4 </div> <div>Algorithm Selection</div> <div>ALGORITHM SELECTION</div> <div><input checked="" type="checkbox"/> DIA-13 ✓ 4 </div> |   |



Epic ▾

Sprint ▾

GROUP BY

None ▾

Insights

TO DO 1 ISSUE

IN PROGRESS 3 ISSUES

CREATE A DATABASE IN CLOUD

✓ DIA-16

4



Develop python script

DEVELOP THE PYTHON SCRIPT

✓ DIA-17

4



DONE 3 ISSUES ✓



ALGORITHM SELECTION

✓ DIA-13

✓

4



Create and configure IBM cloud services

CREATE AND CONFIGURE IBM CLO...

✓ DIA-14

✓

4

