

## Project Planning Phase

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

|               |  |
|---------------|--|
| Date          | 22 October 2022  |
| Team ID       | PNT2022TMID12535   |
| Project Name  | Project - Early Detection of Chronic Kidney Disease using Machine Learning |
| 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 | Homepage                      | USN-1             | As a user, I can see the homepage of the application   | 4            | Medium   | Darwin Debbarma, Swetha               |
| Sprint-2 | Dashboard                     | USN-2             | As a user, I must enter the required parameters required to make the prediction  | 7            | High     | Darwin Debbarma, Anita Priyadharshini |
| Sprint-3 | Result                        | USN-3             | As a user, I can view the report generated by the tool (Prediction result – Positive/Negative)   | 8            | High     | Anita Priyadharshini, Swetha          |
| Sprint-2 |                               | USN-4             | As an administrator, I should identify the most significant factors that lead to CKD based on the present trend and come up with the input parameter that should be given by the user for CKD prediction | 5            | High     | Pavithra, Anita Priyadharshini        |
| Sprint-3 | Prediction                    | USN-5             | As an administrator, I must use the most suitable ML model for detection of CKD  | 4            | High     | Pavithra, Swetha                      |
| Sprint-4 |                               | USN-6             | As an administrator, I must ensure that the web application is live and is accessible on any device with internet connectivity   | 7            | High     | Darwin Debbarma, Pavithra             |

**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  | 14 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)

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