

## Project Planning Phase

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

|               |   |
|---------------|---|
| Date          | 31 October 2022   |
| Team ID       | PNT2022TMID53276  |
| Project Name  | Project - Early Detection of Chronic Kidney Diseases using Machine Learning |
| 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 | Home Page Development         | USN-1             | Creation of Home page with Description given about the fatality of chronic kidney diseases and statistics provided on the same | 8            | High     | Sri Kavya Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |
| Sprint-1 |                               | USN-2             | Information about various kidney diseases and most common symptoms   | 4            | Medium   | Sri Kavya Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |
| Sprint-1 |                               | USN-3             | Rundown on the steps and procedure to be followed by the user before they begin the process                                    | 4            | Medium   | Sri Kavya Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |
| Sprint-1 |                               | USN-4             | About the model, accuracy, predictions made etc  | 4            | Medium   | Sri Kavya Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |

| <b>Sprint</b> | <b>Functional Requirement (Epic)</b> | <b>User Story Number</b> | <b>User Story / Task</b>  | <b>Story Points</b> | <b>Priority</b> | <b>Team Members</b>  |
|---------------|--------------------------------------|--------------------------|---|---------------------|-----------------|--|
| Sprint-2      | User Registration                    | USN-5                    | As a user, I can register for the application by entering my email, password, and confirming my password. | 10                  | High            | Sri Kavya<br>Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |
| Sprint-2      | User Login                           | USN-6                    | As a user, I can log into the application by entering email & password                                    | 10                  | High            | Sri Kavya<br>Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |
| Sprint-4      | Data Collection                      | USN-7                    | As a user, I can input details about my health for disease prediction                                     | 5                   | High            | Sri Kavya<br>Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |
| Sprint-4      | Output Prediction                    | USN-8                    | As a user, I can view results   | 5                   | High            | Sri Kavya<br>Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |
| Sprint-4      | Further Steps                        | USN-12                   | As a user, i can get guidance from experts based on my need   | 5                   | Medium          | Sri Kavya<br>Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |
| Sprint-4      |                                      | USN-13                   | As a developer, i should record the results of the user for future requirements                           | 5                   | Medium          | Sri Kavya<br>Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |
| Sprint-3      | Model Building                       | USN-9                    | As a developer, need to find out the right machine learning algorithm to make accurate predictions        | 10                  | High            | Sri Kavya<br>Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |

| Sprint   | Functional Requirement (Epic) | User Story Number | User Story / Task   | Story Points | Priority | Team Members   |
|----------|-------------------------------|-------------------|---|--------------|----------|--|
| Sprint-3 | Model Training                | USN-10            | As a developer, need to train and test the model with the available dataset               | 5            | High     | Sri Kavya<br>Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |
| Sprint-3 | Model Integration             | USN-11            | As a developer, need to integrate the model to the website to present results to the user | 5            | High     | Sri Kavya<br>Hariharan<br>Yuvan Arvind<br>Vibha V K<br>Shalini P |

**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               |   |                              |
| Sprint-3 | 20                 | 6 Days   | 07 Nov 2022       | 12 Nov 2022               |   |                              |
| Sprint-4 | 20                 | 6 Days   | 14 Nov 2022       | 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)

$$AV = \text{SPRINT DURATION} / \text{VELOCITY} = 20 / 6 = 3.33$$

**Burndown Chart:**

A burndown 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.

Oct / Nov 2022

October

November

10/23 - 10/29

10/30 - 11/05

11/06 - 11/12

11/13 - 11/18

Ideal timeline

Actual timeline

Home page  
development

User  
registration  
and user  
login

Model building,  
model training and  
model integration.

Data  
collection,  
output  
prediction and  
further steps.

