Project Planning Phase

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

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| --- | --- |
| Date | 18 October 2022 |
| Team ID | PNT2022TMID36002 |
| Project Name | Early Detection of Chronic Kidney Disease 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

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| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-1 | Data Collection | Task-1 | To build the machine learning model, we begin with the process of downloading the dataset  and then perform data analysis | 4 | Low | Sandhya S |
| Sprint-1 | Data Analysis | Task-2 | We import the required libraries and then perform data analysis on the given dataset. | 3 | Medium | Nithyakamal Ilamurugu |
| Sprint-1 | Data Pre-processing | Task-3 | Data cleaning, handling missing values and performing label encoding. | 8 | Medium | Gnanavarshini M |
| Sprint-1 | Building Login Page | USN-1 | As a user, I can log into the application through a mail and password | 5 | High | Pooja Balasubramanian |
| Sprint-2 | Register Page | USN-2 | As a new user, I can register for the application through email. | 5 | High | Sanjay Kannan M |
| Sprint-2 | Splitting the dataset | Task-4 | Splitting dataset into train and test split. | 3 | Medium | Gnanavarshini M |
| Sprint-2 | Building the Model | Task-5 | Build three different ML models for classification and prediction. | 12 | High | Sandhya S  Nithyakamal Ilamurugu |
| Sprint-3 | Home Page | USN-3 | As a user, I can view the symptoms of CKD and test vitals required for its prediction. | 5 | Medium | Gnanavarshini M |
| Sprint-3 | Comparing different ML Models | Task-6 | Evaluating each model and choosing the one with better accuracy. | 3 | Low | Pooja Balasubramanian |

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| **Sprint** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-3 | Creating User Database | Task-7 | Storing the user login details in the database. | 12 | High | Sandhya S Sanjay Kannan M |
| Sprint-4 | Prediction Page | USN-4 | As a user, I can view the test results. | 5 | Low | Sanjay Kannan M |
| Sprint-4 | Train model on IBM Cloud | Task-8 | Train the ML model on IBM Watson. | 7 | Medium | Nithyakamal Ilamurugu |
| Sprint-4 | Flask Integration | Task-9 | Integrating the HTML files with the ML model. | 8 | High | Pooja Balasubramanian |

# Project Tracker, Velocity & Burndown Chart: (4 Marks)

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| --- | --- | --- | --- | --- | --- | --- |
| **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 | 7 Days | 24 Oct 2022 | 29 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)

