

## Project Planning Phase

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

|               |   |
|---------------|---|
| Date          | 06 NOVEMBER 2022                                      |
| Team ID       | PNT2022TMID29438                                      |
| Project Name  | AI-Powered Nutrition Analyzer For Fitness Enthusiasts |
| Maximum Marks | 8 Marks   |

### Product Backlog, Sprint Schedule, and Estimation

| Sprint   | Functional Requirement (Epic) | User Story Number | User Story / Task  | Story Points | Priority | Team Members       |
|----------|-------------------------------|-------------------|--|--------------|----------|--------------------|
| Sprint-1 | Data Collection               | USN-1             | Dataset - Collecting images of food items apples , banana, orange, pineapple, watermelon for analysis    | 5            | High     | Harsha.M, Arthi.S  |
| Sprint-1 | Image Preprocessing           | USN-2             | Image data augmentation - Increasing the amount of data by generating new data points from existing data | 5            | Medium   | Harsha.M, Oviya.M  |
| Sprint-1 |                               | USN-3             | Image Data Generator Class - Used for getting the input of the original data                             | 5            | Medium   | Arthi.S, Nikitha.S |

|          |                |        |   |   |        |                        |
|----------|----------------|--------|---|---|--------|------------------------|
| Sprint-1 |                | USN-4  | Applying image data generator functionality to train set and test set                                   | 5 | Medium | Oviya.M,<br>Arthi.S    |
| Sprint-2 | Modeling Phase | USN-5  | Defining the model architecture - Building the model using deep learning approach and adding CNN layers | 4 | High   | Oviya.M,<br>Nikitha.S  |
| Sprint-2 |                | USN -6 | Training , saving, testing and predicting the model   | 5 | High   | Arthi.S,<br>Nikitha.S  |
| Sprint-2 |                | USN- 7 | Database creation for the input classes   | 4 | High   | Harsha.M,<br>Nikitha.S |

| <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     | Development phase                    | USN- 8                   | User database creation - It contains the details of users   | 3                   | Medium          | Harsha.M,<br>Oviya.M  |
| Sprint-2      |                                      | USN- 9                   | Home page creation - It shows options of the application  | 2                   | Low             | Arthi.S,<br>Nikitha.S |
| Sprint-2      |                                      | USN- 10                  | Login and registration page creation - User can register and login through g-mail with Id and password  | 2                   | Low             | Arthi.S,<br>Harsha.M  |
| Sprint-3      |                                      | USN- 11                  | Dashboard creation – Dashboard contains the information of user profile and features of the application | 2                   | Low             | Oviya.M,<br>Nikitha.S |
| Sprint-3      |                                      | USN- 12                  | User Input Page Creation - It is for the user to feed the input images                                  | 4                   | Medium          | Arthi.S,<br>Oviya.M   |

|          |                   |         |   |   |        |                     |
|----------|-------------------|---------|---|---|--------|---------------------|
| Sprint-3 |                   | USN- 13 | Analysis and prediction page creation - It shows the prediction of given user input                       | 4 | Medium | Harsha.M, Nikitha.S |
| Sprint-3 |                   | USN- 14 | Creation of about us , feedback and rating page – It shows application history and feedback page to users | 4 | Medium | Oviya.M, Harsha.M   |
| Sprint-3 | Application Phase | USN- 15 | Building the python code and importing the flask module into the Project                                  | 6 | High   | Harsha.M, Oviya.M   |
| Sprint-4 |                   | USN- 16 | Create the Flask application and loading the model  | 5 | High   | Oviya.M, Nikitha.S  |
| Sprint-4 |                   | USN- 17 | API integration - Connecting front end and back end and perform routing and run the application           | 5 | High   | Arthi.S, Harsha.M   |
| Sprint-4 | Deployment Phase  | USN-18  | Cloud deployment – Deployment of application by using IBM cloud   | 4 | High   | Arthi.S, Nikitha.S  |

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|----------|-------------------------------|-------------------|--|--------------|----------|---------------------|
| Sprint-4 | Testing Phase                 | USN-19            | Functional testing – Checking usability and accessibility                        | 3            | Medium   | Oviya.M, Arthi.S    |
|          |                               | USN-20            | Non Functional testing – Checking scalability and performance of the application | 3            | Medium   | Harsha.M, Nikitha.S |

### Project Tracker, Velocity & Burn down 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  | 06 Nov 2022                  |
| Sprint-2 | 20                 | 6 Days   | 31 Oct 2022       | 05 Nov 2022               | 20  | 10 Nov 2022                  |
| Sprint-3 | 20                 | 6 Days   | 07 Nov 2022       | 12 Nov 2022               | 20  | 14 Nov 2022                  |
| Sprint-4 | 20                 | 6 Days   | 14 Nov 2022       | 19 Nov 2022               | 20  | 18 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)

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