

Project Planning Phase

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

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| Date | 18 October 2022 |
| Team ID | PNT2022TMID07703 |
| 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 | Dharanidharan.K Harinisree.S Viswanathan S Elakkiya D |
| Sprint-1 | Image Preprocessing | USN-2 | Image data augmentation - Increasing the amount of data by generating new data points from existing data | 4 | Medium | Dharanidharan.K Harinisree.S |
| Sprint-1 | | USN-3 | Image Data Generator Class - Used for getting the input of the original data | 4 | Medium | Dharanidharan.K Harinisree.S Viswanathan S Elakkiya D |
| Sprint-1 | | USN-4 | Applying image data generator functionality to train set and test set | 4 | Medium | Viswanathan S Elakkiya D |
| Sprint-2 | Modeling Phase | USN-5 | Defining the model architecture - Building the model using deep learning approach and adding CNN layers | 4 | High | Dharanidharan.K Harinisree.S |
| Sprint-2 | | USN -6 | Training , saving, testing and predicting the model | 5 | High | Viswanathan S Elakkiya D |
| Sprint-2 | | USN- 7 | Database creation for the input classes | 4 | High | Dharanidharan.K Harinisree.S |

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|-----------|-------------------------------|-------------------|---|--------------|----------|--|
| Sprint- 2 | Development phase | USN- 8 | User database creation - It contains the details of users | 3 | Medium | Dharanidharan.K Harinisree.S Viswanathan S Elakkiya D |
| Sprint-2 | | USN- 9 | Home page creation - It shows options of the application | 2 | Low | Viswanathan S Elakkiya D |
| Sprint-2 | | USN- 10 | Login and registration page creation - User can register and login through gmail with Id and password | 2 | Low | Viswanathan S Elakkiya D |
| Sprint-3 | | USN- 11 | Dashboard creation – Dashboard contains the information of user profile and features of the application | 2 | Low | Dharanidharan.K Harinisree.S Viswanathan S Elakkiya D |
| Sprint-3 | | USN- 12 | User Input Page Creation - It is for the user to feed the input images | 4 | Medium | Dharanidharan.K Harinisree.S |
| Sprint-3 | | USN- 13 | Analysis and prediction page creation - It shows the prediction of given user input | 4 | Medium | Dharanidharan.K Harinisree.S |
| Sprint-3 | | USN- 14 | Creation of about us , feedback and rating page – It shows application history and feedback page to users | 4 | Medium | Viswanathan S Elakkiya D |
| Sprint-3 | Application Phase | USN- 15 | Building the python code and importing the flask module into the Project | 6 | High | Viswanathan S Elakkiya D |
| Sprint-4 | | USN- 16 | Create the Flask application and loading the model | 5 | High | Dharanidharan.K Harinisree.S |
| Sprint-4 | | USN- 17 | API integration - Connecting front end and back end and perform routing and run the application | 5 | High | Dharanidharan.K Harinisree.S Viswanathan S Elakkiya D |
| Sprint-4 | Deployment Phase | USN-18 | Cloud deployment – Deployment of application by using IBM cloud | 4 | High | Dharanidharan.K Harinisree.S |

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| Sprint-4 | Testing Phase | USN-19 | Functional testing – Checking usability and accessibility | 3 | Medium | Dharanidharan.K Harinisree.S Viswanathan S Elakkiya D |
| | | USN-20 | Non Functional testing – Checking scalability and performance of the application | 3 | Medium | Dharanidharan.K Harinisree.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 | 08 | 5 Days | 29 Oct 2022 | 02 Nov 2022 | 20 | 3 Nov 2022 |
| Sprint-2 | 15 | 5 Days | 03 Oct 2022 | 07 Nov 2022 | 20 | 8 Nov 2022 |
| Sprint-3 | 15 | 5 Days | 08 Nov 2022 | 12 Nov 2022 | 20 | 11 Nov 2022 |
| Sprint-4 | 25 | 5 Days | 13 Nov 2022 | 17 Nov 2022 | 20 | 16 Nov 2022 |

| Sprint | Total Story Points | Duration | Sprint Start Date | Sprint End Date (Planned) | Story Points Completed (as on Planned End Date) |
|--------|--------------------|----------|-------------------|---------------------------|---|
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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)

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

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 suchas Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

Sprint planning

