# Project Planning Phase

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

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| Date | 1 November 2023 |
| Team ID | Team-592942 |
| Project Name | Detecting COVID-19 From Chest X-Rays Using Deep Learning Techniques |
| 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 | Establish the project's foundation | USN-1 | -Collect diverse chest X-ray datasets: Research and collect COVID-19 and normal chest X-ray datasets. Preprocess and clean the data: Organize and store data, resize, normalize, handle missing data. - Design a CNN architecture: Choose an appropriate architecture, split data into train, validation, and test sets, implement data augmentation.. | 10 | High | |

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| Sprint-2 | Develop and train the initial CNN model | USN-2 | - Train the CNN model: Configure model architecture, train on training set, implement early stopping and model checkpointing. - Evaluate model performance: Use validation set, implement evaluation metrics, identify areas for improvement. | 10 | High | |
| Sprint-3 | Optimize the model's performance and prepare for deployment | USN-3 | - Fine-tune model hyperparameters: Perform hyperparameter tuning based on validation results, document the best hyperparameters. - Prepare for deployment: Export the trained model in a suitable format (e.g., TensorFlow SavedModel, ONNX), create a simple user interface for testing. | 10 | High | |
| Sprint-4 | Finalize the project, conduct testing, and document | USN-4 | - Conduct testing and debugging: Test the model with COVID-19 and normal chest X-ray images, address and fix issues, ensure a functional user interface. - Document the project: Create project documentation, prepare a presentation or report for stakeholders. | 10 | High | |
| Sprint-1 | Deploy the model On flask. | USN-5 | - Set up Flask application: Establish a Flask application for deploying the model. - Model Integration: Integrate the trained model into the Flask application. - Create RESTful API: Develop a RESTful API endpoint for model | 10 | High | |

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| | | | inference. - Test Flask Deployment: Conduct testing and debugging for the Flask deployment. - Document Flask Deployment: Create documentation for the Flask deployment, including setup instructions and API documentation. | | | |
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**Project Trackert: (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 | 4 Days | 2 Nov 2023 | 5 Nov 2023 | 10 | 1 November 2023 |
| Sprint-2 | 20 | 4 Days | 6 Nov 2023 | 9 Nov 2023 | 10 | 1 November 2023 |
| Sprint-3 | 20 | 4 Days | 10 Nov 2023 | 13 Nov 2023 | 10 | 1 November 2023 |
| Sprint-4 | 20 | 4 Days | 14 Nov 2023 | 17 Nov 2023 | 10 | 1 November 2023 |