# Initial Project Planning Template

| Date | 5 Feb 2026 |
|---|---|
| Student Name | Rounak Pratap Gajbar |
| Project Name | greenclassify: deep learning-based approach for vegetable image |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members | Sprint Start Date | Sprint End Date (Planned) |
|---|---|---|---|---|---|---|---|---|
| Sprint 1 | Data Acquisition & Preprocessing | USN-1 | Gather a diverse dataset of vegetable images from various sources (online datasets, personal photography). | 5 | High | Data Scientist, Engineer | 2024-11-25 | 2024-11-29 |
| Sprint 1 | Data Acquisition & Preprocessing | USN-2 | Clean and label the dataset, ensuring consistency and accuracy in labeling. | 8 | High | Data Scientist | 2024-11-25 | 2024-11-29 |
| Sprint 1 | Data Acquisition & Preprocessing | USN-3 | Resize and normalize images to a standard size and format for CNN input. | 3 | High | Engineer | 2024-11-25 | 2024-11-29 |
| Sprint 1 | Model Development | USN-4 | Select appropriate CNN architecture (e.g., ResNet, Inception) based on literature review and dataset characteristics. | 5 | High | Data Scientist | 2024-11-25 | 2024-11-29 |

| Sprint 1 | Model Development | USN-5 | Implement the chosen CNN model using TensorFlow/Keras. | 7 | High | Data Scientist, Engineer | 2024-11-25 | 2024-11-29 |
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| Sprint 1 | Model Development | USN-6 | Train the initial model using the preprocessed dataset. | 8 | High | Data Scientist | 2024-11-25 | 2024-11-29 |
| Sprint 2 | Model Evaluation & Optimization | USN-7 | Evaluate model performance using appropriate metrics (accuracy, precision, recall, F1-score). | 5 | High | Data Scientist | 2024-12-02 | 2024-12-06 |
| Sprint 2 | Model Evaluation & Optimization | USN-8 | Tune hyperparameters (learning rate, batch size, number of epochs) to optimize model performance. | 7 | High | Data Scientist | 2024-12-02 | 2024-12-06 |
| Sprint 2 | Model Evaluation & Optimization | USN-9 | Perform cross-validation to assess model generalization ability. | 4 | High | Data Scientist | 2024-12-02 | 2024-12-06 |
| Sprint 2 | Deployment & UI Development | USN-10 | Develop a Flask web application for image upload and prediction. | 8 | High | Engineer | 2024-12-02 | 2024-12-06 |
| Sprint 2 | Deployment & UI Development | USN-11 | Integrate the trained model into the Flask application. | 5 | High | Engineer | 2024-12-02 | 2024-12-06 |
| Sprint 3 | Testing and Documentation | USN-12 | Conduct thorough testing of the application, including edge case scenarios. | 3 | High | QA Tester, Engineer | 2024-12-09 | 2024-12-13 |
| Sprint 3 | Testing and Documentation | USN-13 | Write comprehensive project documentation (report, code comments). | 5 | High | All Team Members | 2024-12-09 | 2024-04-13 |