**Initial Project Planning Template**

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| Date | 15 June 2025 |
| Team ID | SWTID1750006853 |
| Project Name | ASL- Alphabet image Recognition |
| Maximum Marks | 4 Marks |

**Product Backlog, Sprint Schedule, and Estimation (4 Marks)**

Use the below template to create a product backlog and sprint schedule

| **Sprint** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Assigned To** | **Sprint Start Date** | **Sprint End Date (Planned)** |
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| Sprint-1 | Dataset Acquisition & Preparation | USN-1 | As a data engineer, I want to collect and organize ASL alphabet image datasets. | 3 | High | T R Anusithara | 2025-06-15 | 2025-06-17 |
| Sprint-1 | Data Preprocessing | USN-2 | As a data engineer, I want to clean and normalize the dataset for training. | 2 | High | T R Anusithara | 2025-06-15 | 2025-06-17 |
| Sprint-1 | Image Preprocessing Pipeline | USN-3 | As a developer, I want to implement image augmentation and resizing techniques. | 3 | Medium | T R Anusithara | 2025-06-15 | 2025-06-17 |
| Sprint-2 | Model Building | USN-4 | As a ML engineer, I want to build a CNN model (VGG16-based) for ASL classification. | 5 | High | Mohamed Ashiq | 2025-06-17 | 2025-07-19 |
| Sprint-2 | Model Training & Tuning | USN-5 | As a ML engineer, I want to train and optimize the model using the preprocessed data. | 5 | High | Mohamed Ashiq | 2025-06-17 | 2025-07-19 |
| Sprint-2 | Model Evaluation & Export | USN-6 | As a ML engineer, I want to evaluate model performance and export it for deployment. | 3 | High | Mohamed Ashiq | 2025-06-17 | 2025-07-19 |
| Sprint-3 | Web App UI (Homepage & Upload) | USN-7 | As a user, I can view the homepage and upload an image for prediction. | 3 | High | Gurkirat Singh | 2025-07-19 | 2025-07-20 |
| Sprint-3 | Result Display Page | USN-8 | As a user, I can view the predicted alphabet after uploading an image. | 2 | High | Gurkirat Singh | 2025-07-19 | 2025-07-20 |
| Sprint-3 | Navigation & Routing | USN-9 | As a user, I can navigate between Home, Prediction, and Result pages. | 1 | Medium | Gurkirat Singh | 2025-07-19 | 2025-07-20 |
| Sprint-3 | Model Integration (Flask Backend) | USN-10 | As a developer, I want to integrate the trained model into the Flask backend. | 4 | High | Gurkirat Singh | 2025-07-19 | 2025-07-20 |
| Sprint-4 | Real-Time Prediction Optimization | USN-11 | As a user, I want near-instant prediction after image submission. | 5 | High | Gurkirat Singh | 2025-07-19 | 2025-07-20 |