

Project Planning Phase

Project Planning

(Product Backlog, Sprint Planning, Stories, Story Points)

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| Date | 07 June 2025 |
| Team ID | LTVIP2025TMID30991 |
| Project Name | Sustainable Smart City Assistant Using IBM Granite LLM |
| Maximum Marks | 5 Marks |

Product Backlog & Sprint Schedule (4 Marks)

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Member |
|----------|-------------------------------|-------------------|--|--------------|----------|-------------------|
| Sprint-1 | Data Collection | USN-01 | As a developer, I can collect and organize smart city-related data from diverse sources to use in the AI assistant | 2 | High | Madduru Mani Teja |
| Sprint-1 | Data Collection | USN-02 | As a developer, I can load the data into my processing pipeline for initial use | 1 | High | Madduru Mani Teja |
| Sprint-1 | Data Preprocessing | USN-03 | As a developer, I can handle missing values in the dataset to improve data quality | 3 | High | Madduru Mani Teja |
| Sprint-1 | Data Preprocessing | USN-04 | As a developer, I can convert categorical data into usable numerical formats | 2 | Medium | Madduru Mani Teja |

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|-----------------|----------------------|--------|--|---|------|-------------------|
| Sprint-2 | Model Building | USN-05 | As a developer, I can build an AI model using IBM Granite LLM to generate text-based responses | 5 | High | Madduru Mani Teja |
| Sprint-2 | Model Evaluation | USN-06 | As a developer, I can test the AI model for its accuracy and relevance | 3 | High | Madduru Mani Teja |
| Sprint-2 | Frontend Development | USN-07 | As a user, I can interact with the Gradio-based interface with labeled tabs and input fields | 3 | High | Madduru Mani Teja |
| Sprint-2 | Deployment | USN-08 | As a developer, I can deploy the assistant using Google Colab and Pyngrok for public access | 5 | High | Madduru Mani Teja |

Project Tracker, Velocity & Burn-down (4 Marks)

Sprint Tracking Table

| Sprint | Total Story Points | Duration | Sprint Start Date | Sprint End Date (Planned) | Story Points Completed (on Planned End Date) | Sprint Release Date (Actual) |
|-----------------|--------------------|----------|-------------------|---------------------------|--|------------------------------|
| Sprint-1 | 8 | 5 Days | 26 May 2025 | 30 May 2025 | 8 | 30 May 2025 |
| Sprint-2 | 16 | 5 Days | 01 June 2025 | 05 June 2025 | 16 | 05 June 2025 |

Velocity Calculation

| Metric | Value |
|--------------------|------------------|
| Total Story Points | 24 (8 + 16) |
| Total Sprints | 2 |
| Velocity | 12 points/sprint |

- Velocity per Day (avg) = $12 / 5 = 2.4$ Story Points per Day

