

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

Date	15 February 2025
Team ID	PNT2025TMID02533
Project Name	Global Food Production trends and Analysis:A Comprehensive Study from 1961 to 2023 Using Power BI
Maximum Marks	5 Marks

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

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Crop Monitoring	USN-1	As a farmer, I can monitor crop growth using IoT sensors to analyze soil moisture and temperature.	3	High	
Sprint-1	Yield Prediction	USN-2	As an analyst, I can predict crop yield based on historical data and weather patterns.	2	Medium	
Sprint-2	Distribution Tracking	USN-3	As a distributor, I can track the transportation and storage conditions of food products	2	Low	
Sprint-2	Resource Optimization	USN-4	As an administrator, I can optimize the allocation of resources based on production data	3	High	

Sprint-3	Quality Assurance	USN-5	As a quality inspector, I can assess the quality of crops using automated analysis techniques	2	Medium	
Sprint-3	Visualization & Analysis	USN-6	As a Power BI user, I want to visualize food production trends across regions.	5	High	
Sprint-4	Insights & Reporting	USN-7	As a researcher, I want to generate insights on production efficiency and yield variation	4	Medium	
Sprint-5	Reporting & Recommendations	USN-8	As a policy advisor, I want to provide recommendations for improving global food production	3	High	

#### Project Tracker, Velocity & Burndown 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	5	7 Days	11 Feb 2025	17Feb 2025	5	17Feb 2025
Sprint-2	6	7 Days	18 Feb 2025	25 Feb 2025	6	25 Feb 2025
Sprint-3	9	7 Days	25 Feb 2025	2 Mar 2025	9	2 Mar 2025
Sprint-4	7	7 Days	5 Mar 2025	11 Mar 2025	7	11 Mar 2025

## Velocity:

- **Sprint Duration** = 7 Days
- **Total Story Point Completed** =  $(5 + 6 + 9 + 7) = 27$
- **Total Sprints** = 4

### Average Velocity Per Iteration Unit :

**AV** = Total Story Points / Sprint Duration

**AV** =  $27 / (7 + 7 + 7 + 7)$

**AV** = 0.96 Story Points Per Day

## Burndown Chart :

The Burndown Chart below visualizes the remaining story points across sprints:



