

Agile Sprint Planning – Rotten Fruits & Vegetables Identification Project

Story Point Scale (Fibonacci)

- **1** – Very Easy task
 - **2** – Normal task
 - **3** – Moderate task
 - **5** – Difficult task
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Sprint 1: Dataset Collection & Preparation

Epic 1: Data Collection

- Dataset identification & selection (USN1) – **2**
- Image gathering (fresh & rotten) (USN2) – **3**
- Dataset organization into folders (USN3) – **2**

Epic 2: Data Preparation

- Image resizing & normalization (USN4) – **3**
- Data augmentation (rotation, flip, zoom) (USN5) – **5**
- Handling class imbalance (USN6) – **3**

Total Story Points in Sprint 1

$$2 + 3 + 2 + 3 + 5 + 3 = 18$$

Sprint 2: Model Development Using Transfer Learning

Epic 3: Model Selection & Design

- Selecting pre-trained CNN model (USN7) – **2**
- Model architecture customization (USN8) – **3**

Epic 4: Model Training

- Training base transfer learning model (USN9) – **5**
- Fine-tuning top layers (USN10) – **5**

Total Story Points in Sprint 2

$$2 + 3 + 5 + 5 = 15$$

Sprint 3: Model Evaluation & Optimization

Epic 5: Model Evaluation

- Accuracy and loss analysis (USN11) – 2
- Confusion matrix & performance metrics (USN12) – 3

Epic 6: Model Optimization

- Hyperparameter tuning (USN13) – 5
- Overfitting reduction (USN14) – 3

Total Story Points in Sprint 3

$$2 + 3 + 5 + 3 = 13$$

Sprint 4: Application Integration & Deployment

Epic 7: Application Development

- Image upload & validation module (USN15) – 3
- Result display with confidence score (USN16) – 2

Epic 8: Deployment

- Model integration with application (USN17) – 5
- Testing & deployment (USN18) – 3

Total Story Points in Sprint 4

$$3 + 2 + 5 + 3 = 13$$

Overall Sprint Summary

Sprint	Focus Area	Total Story Points
Sprint 1	Data Collection & Preparation	18
Sprint 2	Model Development	15
Sprint 3	Evaluation & Optimization	13
Sprint 4	Integration & Deployment	13

✓ **Why this fits your project**

- Aligns with **Agile methodology**
- Uses **transfer learning workflow**
- Balanced sprint workload
- Perfect for **final-year project / viva / report**