

## Project Design Phase-II

### Data Flow Diagram & User Stories

Date	31 January 2025
Team ID	LTVIP2025TMID35093
Project Name	Smart Sorting & Transfer Learning for Identifying Rotten Fruits and Vegetables
Maximum Marks	4 Marks

#### Data Flow Diagrams:

#### Level-1 Data Flow Diagram (DFD) Description

##### Entities:

- User (Vendor/Admin)
- Camera Module
- Edge Device (Raspberry Pi + AI Model)
- Sorting Unit
- Database
- Dashboard Interface

##### Data Flow:

```
css
CopyEdit
User
↓
[Image Input via Camera]
↓
[Edge Device: AI Model Inference]
↓           ↘
[Prediction: Fresh/Rotten] [Logs to Database]
↓
[Sorting Mechanism]
↓
```

[Bin A: Fresh]      [Bin B: Rotten]



[Dashboard Display]

📌 You can visualize this using any DFD tool (like draw.io or Lucidchart).

### User Stories Table

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Vendor (Mobile)	Image Upload	USN-1	As a vendor, I can upload images of fruits/vegetables to classify them.	Uploads are accepted; model returns result.	High	Sprint - 1
Vendor (Mobile)	Prediction Feedback	USN-2	As a vendor, I can view if the produce is fresh or rotten.	Prediction result is visible with confidence level.	High	Sprint - 1

<b>Admin (Web)</b>	Dashboard	USN-3	As an admin, I can view total produce processed, and accuracy of predictions.	Real-time data shown on dashboard.	H i g h	S p r i n t - 2
<b>Vendor (Mobile)</b>	Registration	USN-4	As a vendor, I can register with email and password.	Can log in and access sorting results.	H i g h	S p r i n t - 1
<b>Vendor (Mobile)</b>	Login	USN-5	As a vendor, I can log in with email and password.	Login success redirects to home page.	H i g h	S p r i n t - 1
<b>Admin (Web)</b>	Sorting Logs	USN-6	As an admin, I can view logs of sorted items.	Logs are timestamped and filterable.	M e d i u m	S p r i n t - 2
<b>System</b>	Smart Sorting	USN-7	As a system, I must control the motor to sort items based on classification.	Items are moved to correct bin.	H i g h	S p r i n

						t - 1
<b>Custo mer Care Exec</b>	Report Issue	USN- 8	As a support staff, I can log vendor issues manually.	Issues are stored with vendor ID and timestamp.	M e d i u m	S p r i n t - 2