

PHASE-3: PROJECT DESIGN

OBJECTIVE

- Create the overall design for the Smart Sorting system.
- Visualize and describe how components interact with each other.
- Plan user interaction and user experience flow from end to end.

SYSTEM ARCHITECTURE DESIGN

- Design a high-level architecture diagram showing core components.
- Include modules like: Input Camera → Image Processing → Model Inference → Sorting Mechanism.
- Highlight connections between components such as hardware, model API, and UI.
- Ensure modular design to make future upgrades and debugging easier.

USER FLOW

- Describe the complete journey of the user from system entry to final result.
- Include steps like: Open interface → Upload/Scan produce → View classification → View suggestions or sorting result.
- Map touchpoints where users interact with UI or hardware (if used).
- Ensure intuitive navigation and minimize user confusion through clear indicators.

UI/UX CONSIDERATIONS

- Use a minimal, clean layout that highlights input and results prominently.
- Icons and color-coded labels (e.g., green for fresh, red for rotten) should be used for better visual communication.
- Ensure accessibility – large buttons, readable fonts, mobile-friendly if needed.
- If sorting is automated via a machine, the UI should reflect system status clearly (e.g., running, error, complete).
- Wireframes or basic mockups should be created using tools like Figma or even sketches for visual guidance before implementation.