

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

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| Date | 17 june 2025 |
| Team ID | LTVIP2025TMID48487 |
| Project Name | ToyCraft Tales: Tableau's Vision into Toy Manufacturer Data |
| Maximum Marks | 4 Marks |

Functional Requirements:

Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|---|
| FR-1 | User Registration | <ul style="list-style-type: none">- Registration through Form- Registration via Gmail- Registration via LinkedIn |
| FR-2 | User Confirmation | <ul style="list-style-type: none">- Confirmation via Email- Confirmation via OTP |
| FR-3 | Data Integration | <ul style="list-style-type: none">- Connect Tableau to Manufacturer Database- Integrate with Excel, ERP Systems- API Support |
| FR-4 | Data Cleaning & Preparation | <ul style="list-style-type: none">- Handle missing/null values- Standardize dates and times- Categorize product data |
| FR-5 | Dashboard Development | <ul style="list-style-type: none">- Sales Performance Dashboard- Inventory Tracking Dashboard- Regional Performance Dashboard |
| FR-6 | User Role Management | <ul style="list-style-type: none">- Define Admin, Analyst, and Viewer roles- Control access to dashboards based on roles |
| FR-7 | Export and Sharing Features | <ul style="list-style-type: none">- Export dashboards as PDF/PNG- Share dashboards via secure links or email |
| FR-8 | Feedback Collection | <ul style="list-style-type: none">- User feedback forms for dashboard usability- Rating system for visualizations |
| FR-9 | Real-Time Data Refresh | <ul style="list-style-type: none">- Support scheduled refreshes- Allow manual data refresh options |
| FR-10 | Security & Compliance | <ul style="list-style-type: none">- Data encryption during transmission- Ensure GDPR/industry compliance |

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| NFR-1 | Usability | The system should provide an intuitive and user-friendly interface that allows users (e.g., manufacturers, analysts) to navigate dashboards and retrieve insights without prior technical training. |
| NFR-2 | Security | Data must be secured through role-based access controls, encryption in transit and at rest, and integration with secure authentication mechanisms (e.g., OAuth for Gmail/LinkedIn logins). |
| NFR-3 | Reliability | The solution should ensure consistent performance with minimal errors or crashes, including error-handling and data recovery mechanisms. |
| NFR-4 | Performance | Dashboards and visualizations should load within 3 seconds for optimal user experience, even with large datasets. Backend processes (ETL, data refresh) must complete within defined SLAs. |
| NFR-5 | Availability | The application should be available at least 99.5% of the time, excluding planned maintenance, to ensure continuous access for stakeholders. |
| NFR-6 | Scalability | The system must support growth in data volume, user traffic, and dashboard complexity without degradation in performance or reliability. It should be deployable in scalable environments (e.g., cloud-based Tableau Server). |