

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

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|---------------|---|
| Date          | 27 june 2025  |
| Team ID       | LTVIP2025TMID49260  |
| 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   | Data Visualization            | - Display interactive heatmap of U.S. toy manufacturers (2005-2016) by state                            |
|        |                               | - Enable year-range filtering (e.g., 2005-2010 vs. 2011-2016)   |
|        |                               | - Implement drill-down to view manufacturer count trends for individual states                          |
| FR-2   | Predictive Analytics          | - Generate decline-risk scores (1-10 scale) for each state based on historical trends                   |
|        |                               | - Highlight "at-risk" states (score $\geq 7$ ) with warning indicators                                  |
| FR-3   | Policy Impact Simulation      | - Allow users to simulate tax incentive effects on manufacturer retention (e.g., +5% growth projection) |

**Non-functional Requirements:**

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

| FR No. | Non-Functional Requirement | Description   |
|--------|----------------------------|---|
| NFR-1  | <b>Usability</b>           | - Dashboard must be navigable by non-technical users (tooltips, guided tours) |
|        |                            | - Mobile-responsive design (Tableau Mobile compatibility)                     |
| NFR-2  | <b>Security</b>            | - AWS encryption for data at rest (S3) and in transit (SSL)                   |
|        |                            | - Role-based access control (RBAC) for admin vs. public users                 |
| NFR-3  | <b>Reliability</b>         | - 99.5% uptime SLA for AWS-hosted Tableau Server                              |

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|  |  | - Automated backups (daily snapshots of PostgreSQL DB) |
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