Enterprise Architecture Capture Tool - Requirements Document

# 1. Core Enterprise Architecture Domains

## 1.1 Business Architecture

* Business capability modeling (with heatmaps)
* Value stream mapping
* Organizational charts & roles/responsibilities
* Business process modeling (BPMN-style diagrams)
* Business goals, drivers, and KPIs tracking

## 1.2 Application Architecture

* Application inventory with metadata (ownership, lifecycle, tech stack)
* Application dependency mapping
* Application to capability mapping
* Interface/API cataloging
* Technology stack mapping

## 1.3 Data Architecture

* Data entity modeling
* Data lineage and flow diagrams
* Master and reference data definitions
* Data governance rules
* Integration with ER tools (via import/export or APIs)

## 1.4 Technology Architecture

* Technology catalog (hardware, platforms, OS, middleware)
* Infrastructure topology diagrams
* Cloud service inventories (Azure, AWS, GCP)
* Network diagrams

## 1.5 Security Architecture

* Identity and access modeling (RBAC, ABAC)
* Zero trust architecture maps
* Threat modeling (STRIDE, MITRE ATT&CK)
* Regulatory compliance tracking (GDPR, HIPAA)

# 2. Design and Assessment Tools

* Architecture maturity model assessment (e.g., TOGAF, Zachman)
* SWOT analysis tool per architecture layer
* Heatmap generator for applications, tech, capabilities
* Capability maturity and risk heatmaps
* Architecture principles and decision log
* Architecture trade-off analysis method (ATAM) module

# 3. Visual & Diagramming Support

* Drag-and-drop diagram canvas (business flows, tech topology, etc.)
* Predefined templates for each architecture layer
* Auto-layout and zoom/pan support
* Export to PDF/Image/PPT
* Integration with diagrams.net or Mermaid for flexibility

# 4. Repository and Traceability

* Architecture repository (local storage or cloud sync)
* Version control for architecture models
* Traceability between artifacts (e.g., process → app → data → infra)
* Change impact analysis

# 5. Integration & Interoperability

* Import/export from tools like Excel, Visio, Sparx EA, ArchiMate models, BPMN/DMN standards
* API integration with Azure DevOps / Jira (for capability-to-project mapping)
* CMDB (ServiceNow)
* Cloud Providers (for live inventory)

# 6. AI and Analytics

* AI-based recommendation engine (modernization targets, improvements)
* Architecture compliance checker
* Cost estimation for cloud migration
* Technical debt analysis

# 7. User and Collaboration Features

* Multi-user support (if connected via cloud or shared repo)
* Role-based access control (RBAC)
* Commenting, approvals, and review workflows
* Chat or notes per artifact
* Collaboration mode with version history

# 8. MAUI-Specific Capabilities

* Cross-platform (Windows, Android, iOS, Mac)
* Offline-first capability with sync
* Diagram editing on touch devices
* Local SQLite or cloud backend (Azure Cosmos DB, Firebase)
* Notifications for reviews or changes

# 9. Deployment and Extensibility

* Plugin architecture for new modules
* Template engine for architecture decks
* App store or private module publishing (within enterprise)

# 10. Governance and Strategy Alignment

* Link architectures to strategic initiatives, OKRs / KPIs, and business roadmaps
* Architecture governance workflow builder
* Lifecycle management of architecture artifacts

# Optional Advanced Modules

* Digital Twin of the Organization (DTO) integration
* Simulation of scenarios (cloud migration, org restructuring)
* EA scorecard generator
* Risk heatmaps and control framework builder