Generative AI Project: Design and Architecture Blueprint

# 1. Project Overview

* \*\*Project Name:\*\*
* \*\*Prepared By:\*\*
* \*\*Date:\*\*
* \*\*Version:\*\*
* \*\*Executive Summary\*\*
* Brief description of the problem being solved, objectives of the generative AI system, target stakeholders, and intended outcomes.

# 2. Conceptual Design

* \*\*2.1 High-Level Vision\*\*
* Outline of the overall system goals, use cases, and the value it brings.
* \*\*2.2 Agent Ecosystem\*\*
* Describe the types of AI agents and their roles.
* \*\*2.3 Autonomy Layers\*\*
* Break down the system into autonomy levels and describe responsibilities.

# 3. Logical Architecture

* \*\*3.1 System Modules\*\*
* List and describe key modules such as Data Ingestion, Preprocessing, etc.
* \*\*3.2 Workflows & Pipelines\*\*
* Detail typical workflows like prompt generation, retrieval, agent communication.

# 4. Databricks Platform Architecture

* \*\*4.1 Core Databricks Services Utilized\*\*
* Include a table with services and their purposes.

# 5. Technical Architecture

* \*\*5.1 Infrastructure Overview\*\*
* Include deployment topology diagrams and environment details.
* \*\*5.2 Security and Access Control\*\*
* Outline data governance, access roles, and PII handling.
* \*\*5.3 Monitoring and Logging\*\*
* Detail metrics, tools, and alerting strategies.

# 6. Agent Design & Workflows

* \*\*6.1 Agent Definitions\*\*
* Provide detailed description and table for each agent.
* \*\*6.2 Prompt Engineering\*\*
* Describe prompt templates, chaining logic, etc.

# 7. Modularity and Extensibility

* \*\*7.1 Plug-and-Play Modules\*\*
* Define boundaries and upgrade interfaces.
* \*\*7.2 Customization Points\*\*
* Specify areas open to customization.

# 8. Risks and Mitigations

* Include a table with Risk, Likelihood, Impact, and Mitigation strategies.

# 9. Implementation Roadmap

* \*\*9.1 Phases\*\*
* Break the implementation into milestones.
* \*\*9.2 Dependencies\*\*
* List required assets, stakeholders, integrations.

# 10. Appendix

* Glossary, references, additional diagrams, sample prompts.