

Work Breakdown Structure

RAG-LLM MVP Implementation Project

Introduction

This Work Breakdown Structure (WBS) defines the scope of work for the “MVP Implementation of a Local LLM with Retrieval-Augmented Generation (RAG)” project. The WBS decomposes the project into manageable work packages, assigns each package with a unique WBS code, and describes the schedule, estimated effort and primary role responsible. By outlining the work across the five project phases (initiation, planning, execution, control and closeout) the WBS supports development of the project schedule, resource requirements and cost estimates. It also provides a common framework for communicating responsibilities and progress with stakeholders. The total estimated effort for the project is 79 person hours, calculated from the sum of all work packages in this WBS.

Tabular View

The tabular view provides a structured representation of the WBS showing how the top-level project (Level 1) decomposes into phases (Level 2) and individual work packages (Level 3). Blank cells in the columns indicate that the value is the same as in the row above.

Level 1	Level 2	Level 3
1	1.1 Initiation	1.1.1 Approve Project Charter
		1.1.2 Define Project Purpose & Justification
		1.1.3 Define Business Need
		1.1.4 Identify Stakeholders
	1.2 Planning	1.2.1 Create Preliminary Scope Statement
		1.2.2 Determine Project Team
		1.2.3 Develop Project Management Plan
		1.2.4 Security and Compliance Submissions
		1.2.5 Cyber Review & QA/SQA Planning
		1.2.6 Project Team Kickoff
		1.2.7 Procurement
	1.3 Execution	1.3.1 Hardware Setup & Environment Config
		1.3.2 Deploy LLM + RAG Architecture
		1.3.3 Document Ingestion & Indexing Pipeline
		1.3.4 Web UI Deployment
		1.3.5 UAT Execution
		1.3.6 Executive Demonstration
	1.4 Control	1.4.1 Project Management & Governance
		1.4.2 Status Meetings
		1.4.3 Risk Management

1.5 Closeout	1.4.4 Update Project Plan
	1.5.1 Lessons Learned
	1.5.2 Final Documentation
	1.5.3 Go/No-Go Review
	1.5.4 Archive Project Files

WBS Dictionary

The WBS dictionary details each work package, including its definition. This information provides clarity to team members on the scope of each task and supports planning, estimating, and the assignment of responsibilities.

WBS Code	Element Name	Definition
1.1.1	Approve Project Charter	Approval of the formal project charter to authorize work. This task ensures foundational clarity and authorization for project initiation.
1.1.2	Define Project Purpose and Justification	Definition of the project's purpose and justification. This task ensures foundational clarity and authorization for project initiation.
1.1.3	Define Business Need	Clarifying the business need driving the MVP implementation. This task ensures foundational clarity and authorization for project initiation.
1.1.4	Identify Stakeholders	Identifying stakeholders for planning and communication. This task ensures foundational clarity and authorization for project initiation.
1.2.1	Create Preliminary Scope Statement	Creation of the preliminary project scope. These planning activities establish scope, team structure, and governance for successful execution.
1.2.2	Determine Project Team	Identification and confirmation of project team members. These planning activities establish scope, team structure, and governance for successful execution.
1.2.3	Develop Project Management Plan	Development of a comprehensive project management plan. These planning activities establish scope, team structure, and governance for successful execution.
1.2.4	Security and Compliance Submission	Submit a Ticket to cover Project; submit completed Cyber Security Review Request; Submit Endpoint Management Exemption Request form; ensure Privileged User Agreement is on file for System Administrators.
1.2.5	Cyber Review and QA/SQA Planning	Cybersecurity, QA, and SQA review and planning activities. These planning activities establish scope, team structure, and governance for successful execution.

1.2.6	Project Team Kickoff	Kickoff meeting to initiate project activities. These planning activities establish scope, team structure, and governance for successful execution.
1.2.7	Procurement	Hardware/software purchase.
1.3.1	Hardware Setup and Environment Configuration	Setup and configuration of hardware and runtime environments. Executing work packages involve hands-on development, deployment, and testing to deliver the MVP.
1.3.2	Deploy LLM + RAG Architecture	Deployment of local LLM and Retrieval-Augmented Generation architecture. Execution of work packages involves hands-on development, deployment, and testing required to deliver the MVP.
1.3.3	Document Ingestion and Indexing Pipeline	Creation of ingestion and indexing pipelines for documents. Execution work packages involve hands-on development, deployment, and testing required to deliver the MVP.
1.3.4	Web UI Deployment	Deployment of the web-based user interface. Execution work packages involve hands-on development, deployment, and testing required to deliver the MVP.
1.3.5	UAT Execution	User acceptance testing execution. Execution work packages involve hands-on development, deployment, and testing required to deliver the MVP.
1.3.6	Executive Demonstration	Demonstration to executive stakeholders. Execution of work packages involves hands-on development, deployment, and testing required to deliver the MVP.
1.4.1	Project Management and Governance	Ongoing project governance and oversight. Control activities monitor progress, ensure quality, and manage change throughout the project.
1.4.2	Status Meetings	Recurring status meetings with team and stakeholders. Control activities monitor progress, ensure quality, and manage change throughout the project.
1.4.3	Risk Management	Active management and mitigation of project risks. Control activities monitor progress, ensure quality, and manage change throughout the project.
1.4.4	Update Project Plan	Updates to the formal project plan as work progresses. Control activities monitor progress, ensure quality, and manage change throughout the project.
1.5.1	Lessons Learned	Documentation and analysis of lessons learned. Closeout ensures formal completion, documentation, and organizational learning.
1.5.2	Final Documentation	Creation of final project documentation. Closeout ensures formal completion, documentation, and organizational learning.

1.5.3	Go/No-Go Review	Go/No-Go decision review. Closeout ensures formal completion, documentation, and organizational learning.
1.5.4	Archive Project Files	Formal archiving of all project files. Closeout ensures formal completion, documentation, and organizational learning.

WBS Code	Element Name	Responsible (R)
1.1.1	Approve Project Charter	Project Sponsor
1.1.2	Define Project Purpose & Justification	Project Manager
1.1.3	Define Business Need	Project Manager
1.1.4	Identify Stakeholders	Project Manager
1.2.1	Create Preliminary Scope Statement	Project Manager
1.2.2	Determine Project Team	Project Manager
1.2.3	Develop Project Management Plan	Project Manager
1.2.4	Security and Compliance Submissions	Security Officer
1.2.5	Cyber Review & QA/SQA Planning	Cyber Lead
1.2.6	Project Team Kickoff	Project Manager
1.2.7	Procurement	Procurement Lead
1.3.1	Hardware Setup & Environment Config	Technical Lead
1.3.2	Deploy LLM + RAG Architecture	Technical Lead
1.3.3	Document Ingestion & Indexing Pipeline	Technical Lead
1.3.4	Web UI Deployment	Technical Lead
1.3.5	UAT Execution	End Users
1.3.6	Executive Demonstration	Project Manager
1.4.1	Project Management & Governance	Project Manager
1.4.2	Status Meetings	Project Manager
1.4.3	Risk Management	Project Manager
1.4.4	Update Project Plan	Project Manager
1.5.1	Lessons Learned	Project Manager
1.5.2	Final Documentation	SQA Lead
1.5.3	Go/No-Go Review	Project Sponsor
1.5.4	Archive Project Files	Project Manager

Glossary of Terms

Term	Definition
WBS Code	A hierarchical numerical identifier used to uniquely reference a work package within the work breakdown structure.
MVP	Minimum Viable Product: a product with just enough features to satisfy early users and provide feedback for future development.
LLM	Large Language Model: an advanced AI model capable of understanding and generating natural language.
RAG	Retrieval Augmented Generation: a technique that combines information retrieval with language generation to provide context-aware responses.
UAT	User Acceptance Testing: formal testing by end users to verify that a solution meets requirements and is ready for production.
QA/SQA	Quality Assurance / Software Quality Assurance: processes that ensure the quality of the software product.
Initiation	Phase that authorizes the project and identifies stakeholders, objectives, and constraints.
Planning	Phase where scope, schedule, budget, resources, and risk management plans are developed.
Execution	Phase during which the project deliverables are developed and completed.
Control	Phase where performance is monitored and changes are managed to ensure that project objectives are met.
Closeout	Final phase which ensures deliverables are accepted; documentation is complete, and lessons learned are captured.