

Build a RAG System with AI

Execution Path

A structured route from idea to working output - the steps, outcomes, workflows, resources, and tools, in order.

Category: AI Systems Steps: 5 Phases: 3

Exported: 2026-07-21 (UTC)

Source: <https://newprompt.net/blueprints/build-rag-system-with-ai/execution-map>

PATH SUMMARY

5 steps across 3 phases.

Use this document as a portable execution guide. Each step lists the expected outcome and the workflow, resource, and tool used in NewPrompt.

PHASE 1 · Define & Scope

Clarify what you're building and for whom.

Step 1 · Understand the source corpus

Before indexing anything, get a handle on what's actually in the documents - the structure, the formats, the parts that matter - so the chunking and grounding decisions later are informed instead of arbitrary.

OUTCOME

A clear picture of what's in the corpus you'll index.

USED IN THIS STEP

Workflow AI Long Document Analysis Workflow
Resource Plan Large Document Analysis - When It Will Not Fit
Tool Long Input Formatter

PHASE 2 · Design

Design the right solution before building.

Step 2 · Chunk and ground the documents

Prepare the documents for retrieval - budget chunk size to the model, ground each source so the model answers from it instead of inventing, and split on clean boundaries so a retrieved piece still makes sense out of order.

OUTCOME

Chunked, grounded documents that hold meaning in retrieval.

USED IN THIS STEP

Workflow AI RAG Context Workflow
Resource Context Window Planning for RAG - Budget the Retrieved Docs
Tool Context Window Estimator

PHASE 3 · Build & Refine

Build, test, secure, and make it production-ready.

Step 3 · Extract the retrieval metadata

Pull the structured metadata each document carries - dates, authors, categories, identifiers - so retrieval can filter and rank on real attributes instead of similarity alone.

OUTCOME

Structured metadata extracted to make retrieval filterable.

USED IN THIS STEP

Workflow	AI Data Extraction Workflow
Resource	Extract Data From Text with AI
Tool	Extraction Prompt Generator

Step 4 · Classify and organize the content

Tag the documents by type, topic, or sensitivity so retrieval can route to the right subset - the difference between searching everything and searching the part that can actually answer.

OUTCOME

Documents classified so retrieval searches the right subset.

USED IN THIS STEP

Workflow	AI Classification Workflow
Resource	Text Classification Prompt - the Anatomy
Tool	Data Classification Prompt

Step 5 · Evaluate retrieval quality

The step most RAG builds skip: test that retrieval returns the right material and the answers stay grounded. Build evaluation scenarios with expected results, catch the misses and hallucinations, and set a regression guard.

OUTCOME

Retrieval tested for accuracy and grounding, with a regression guard.

USED IN THIS STEP

Workflow	AI Agent Evaluation Workflow
Resource	Hallucination Detection Prompt
Tool	Test Case Prompt Generator

This PDF is a static export of the NewPrompt execution path. It does not include workspace progress, personal notes, saved outputs, or project state.