

Pro.wiz AI Project Plan

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Section 1

Overview

Background

- We are building an AI-powered Project Management & ERP solution designed for Design & Engineering businesses.
- The solution, Pro.wiz, will leverage AI from the beginning to solve common issues in project execution.
- It will be a cloud-based service, billed based on the data volume processed.

Target Audience

- Design & Engineering businesses in sectors such as:
 - Oil & Gas
 - Infrastructure Development
 - Chemical & Process Industries
 - Power Generation
 - Water & Effluent Treatment
 - Aviation, Food & Beverage, Marine & Shipbuilding
- Ideal fit: Businesses with annual billing between \$50M and \$150M.
- These companies handle multiple projects, generate and revise numerous documents, and require compliance and safety verification.

AI Integration & Requirements

- Our in-house team will build the ERP system, but we require AI expertise to accelerate implementation.
- A specialized team is needed to:
 - Evaluate AI models and select the most appropriate one.
 - Train an SLM model on business-specific data.
 - Automate time-consuming engineering tasks.
 - Ensure seamless integration via API endpoints using JSON.
- Data sources include historical contracts, drawings, standards, QC procedures, and business process documentation.

Section 2

Usecases

Usecase 1: Preparation of Equipment List & Datasheets

Input Documents	Output Documents
P&IDs Mechanical Design Basis Project specifications Piping Material Specifications Valve Material Specifications Painting Specifications Insulation Specifications Pressure Vessel Specifications Material Specifications	Equipment List Manual Control Valve List Mechanical Datasheets

Table: Input and Output Documents for Equipment List & Datasheets

Usecase 2: Input and Output Documents for Instrument Index and I/O List

Input Documents	Output Documents
Piping and Instrumentation Diagrams (P&IDs) Alarm Trip Schedule Line List	Instrument I/O List Instrument Index

Table: Input and Output Documents for Instrument Index and I/O List

Usecase 3: Preparation of Instrument Datasheets

- Instrument datasheets are prepared by extracting data from:
 - Instrument Index
 - Piping and Instrumentation Diagrams (P&IDs)
 - Instrument Specifications
- This data is fed into standard templates.

Usecase 4: Structural and Civil Cost Estimation

- Automatic generation of BOQs and cost estimation.
- Covers RCC buildings and steel sheds.
- Based on cost database and standard estimation formats.

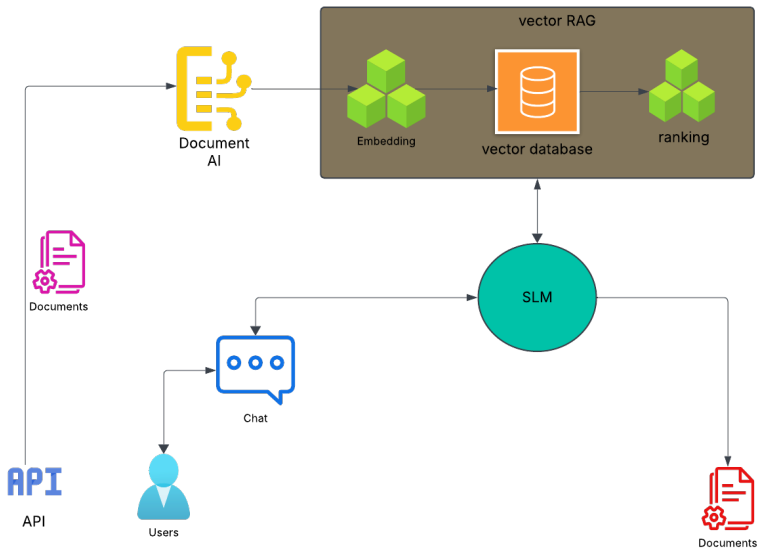
Usecase 5: Codes & Standards Referencing

- Retrieve relevant clauses from standards (ASTM, ASME, API, ISO, etc.).
- Summarize and explain sections from standards.
- Provide cross-references between different standards.
- Automated compliance checks of engineering documents.

Section 3

DhvaniAI Solution

Usecase Architecture



Agentic Architecture

