AI Assistant for Project Management Tasks

Using Low Code Solution

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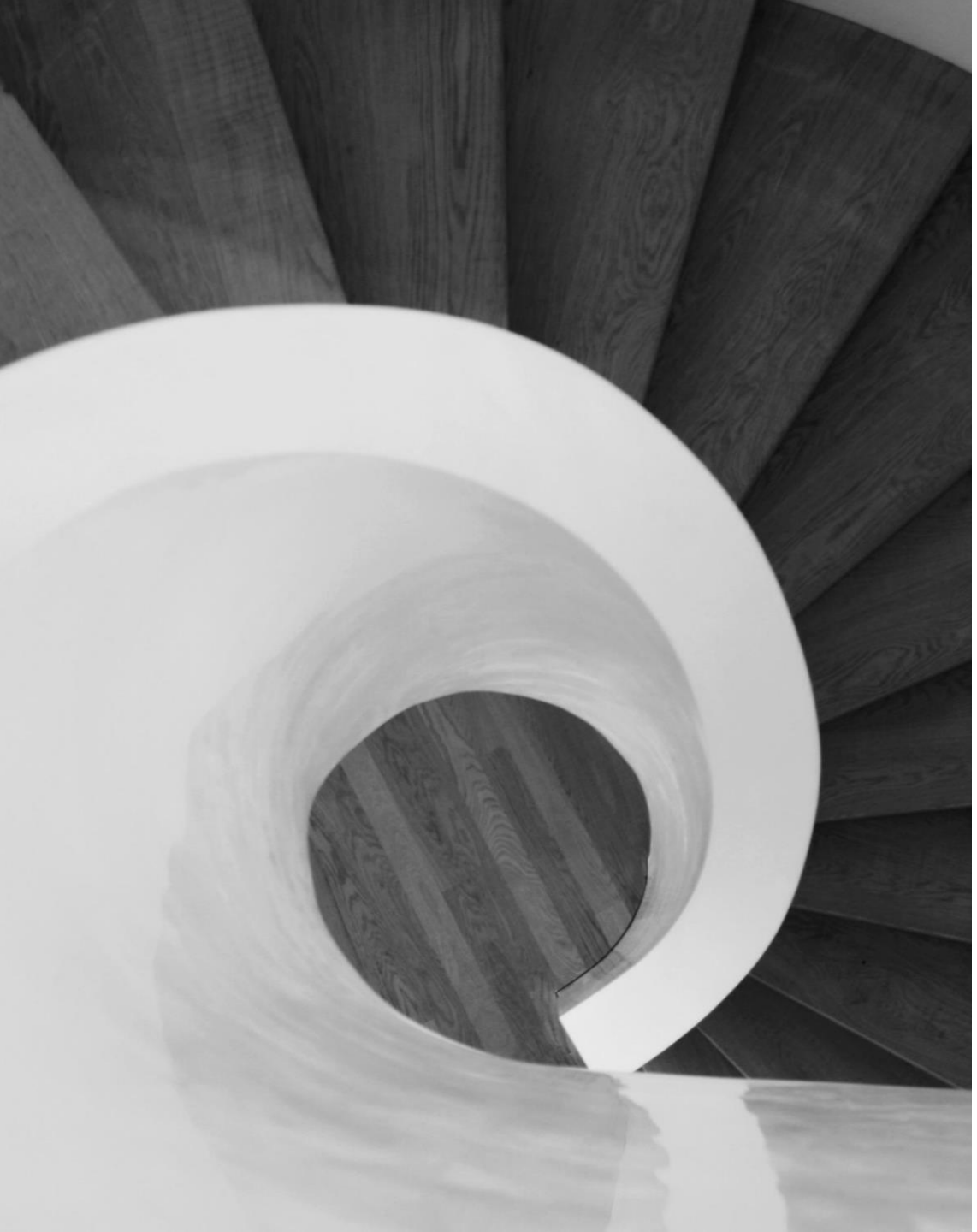


Agenda

- Motivation
- Solution
- Evaluation
- Conclusions
- Demo

1. Motivation

1.1. Background

- DIGITAL IMPACTS is a Frankfurt-based consulting startup, founded in 2018, offering management and technology services across IT governance, agile project management, compliance, and digital process optimization.

- In a fast-paced consulting environment, project managers face increasing complexity. Managing tasks, communication, and reporting requires intelligent, time-saving tools that support decision-making and streamline daily operations.

1.2. Problem Statement

Project delays due to manual coordination

Manual creation of project documents and reports can be time consuming

No centralized dashboard for project tracking and important alerts/notification

Employees Struggle to quickly find important information from internal documents

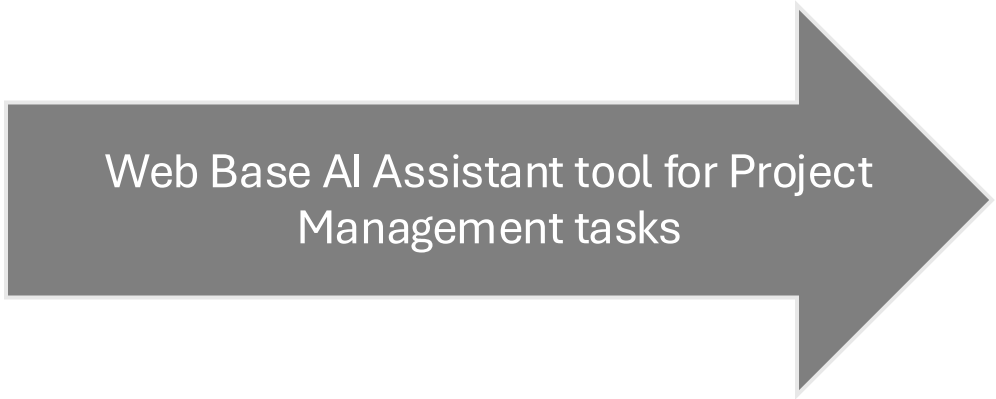
1.3. Goal

- The main objective of this thesis is to develop an AI Assistant for daily project management tasks including automate project assistant's tasks with the help of low code solution, allowing DI project managers to fast their daily routine tasks.

- According to that,
  - Conduct a literature review
  - Design and implementation of the proposed system
  - Validate the designed system

2. Solution

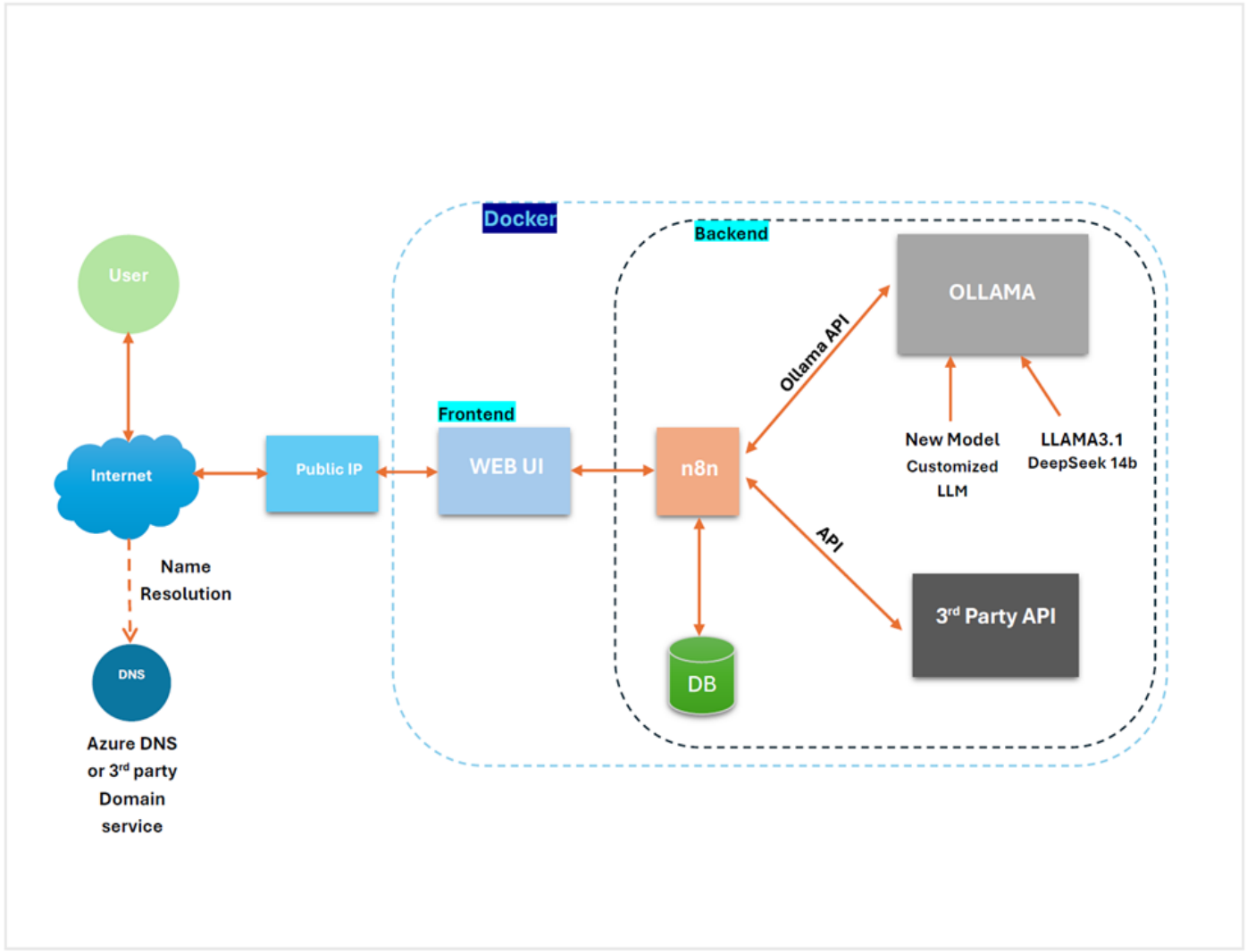
2.1. Proposed System and Key Features



- Set-up follow-up meetings
- Generate meeting agenda
- Summarize meetings
- Chat with internal documents
- Connect "Asana" software for project automation
- Detailed project dashboard
- Generate Project reports

2.2. System Architecture

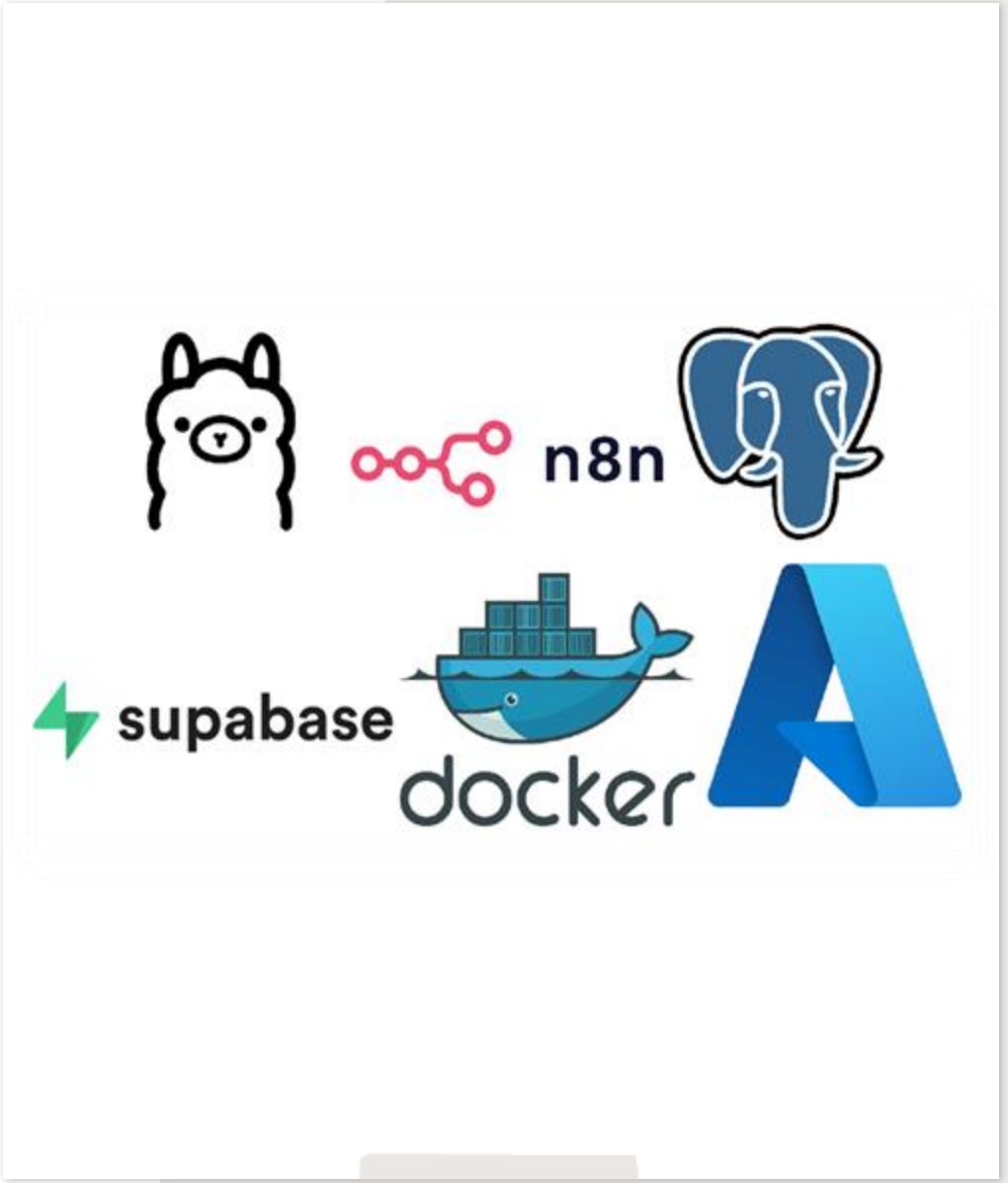
- This system follows "microservices architecture".
- The system will deploy under Microsoft Azure cloud as a dedicated GPU VM.
- Main system components running under Docker containers.
- User can connect through web URL via Internet.



2.3. Tech Stack

- **BACKEND**
  - *N8N*
  - *OLLAMA*
  - *SUPABASE VDB*
  - *POSTGRESQL*
  - *DOCKER*
  - *MS AZURE (Cloud Deployment)*

- **FRONTEND**
  - *HTML*
  - *TAILWIND CSS*
  - *JAVASCRIPT*



3. Evaluation

3.1. Fulfilment of Functional Requirement

Requirements	Fully met	Partially met	Not met
Set-up follow-up meetings	x		
Generate meeting agenda	x		
Summarize meetings	x		
Chat with internal documents	x		
Connect "Asana" software for project automation		x	
Detailed project dashboard	x		
Generate Project reports			x

3.2. Proformance Testing

Test id	Workflow	Tokens Used	Execution time (s)	Status
1076	Index Chat	130	0.635	Success
1081	Follow-up Meetings	1512	25.62	Success
1053	Summarize Meetings (transcript)	1063	10.319	Success
1056	Summarize Meetings (AI chat)	1264	3.22	Success
1062	Project Dashboard	649	15.942	Success
1094	Chat with Internal Documents	462	8.797	Success

CPU Usage: ~15% RAM Usage: ~60% GPU Usage: ~90%

4. Conclusions

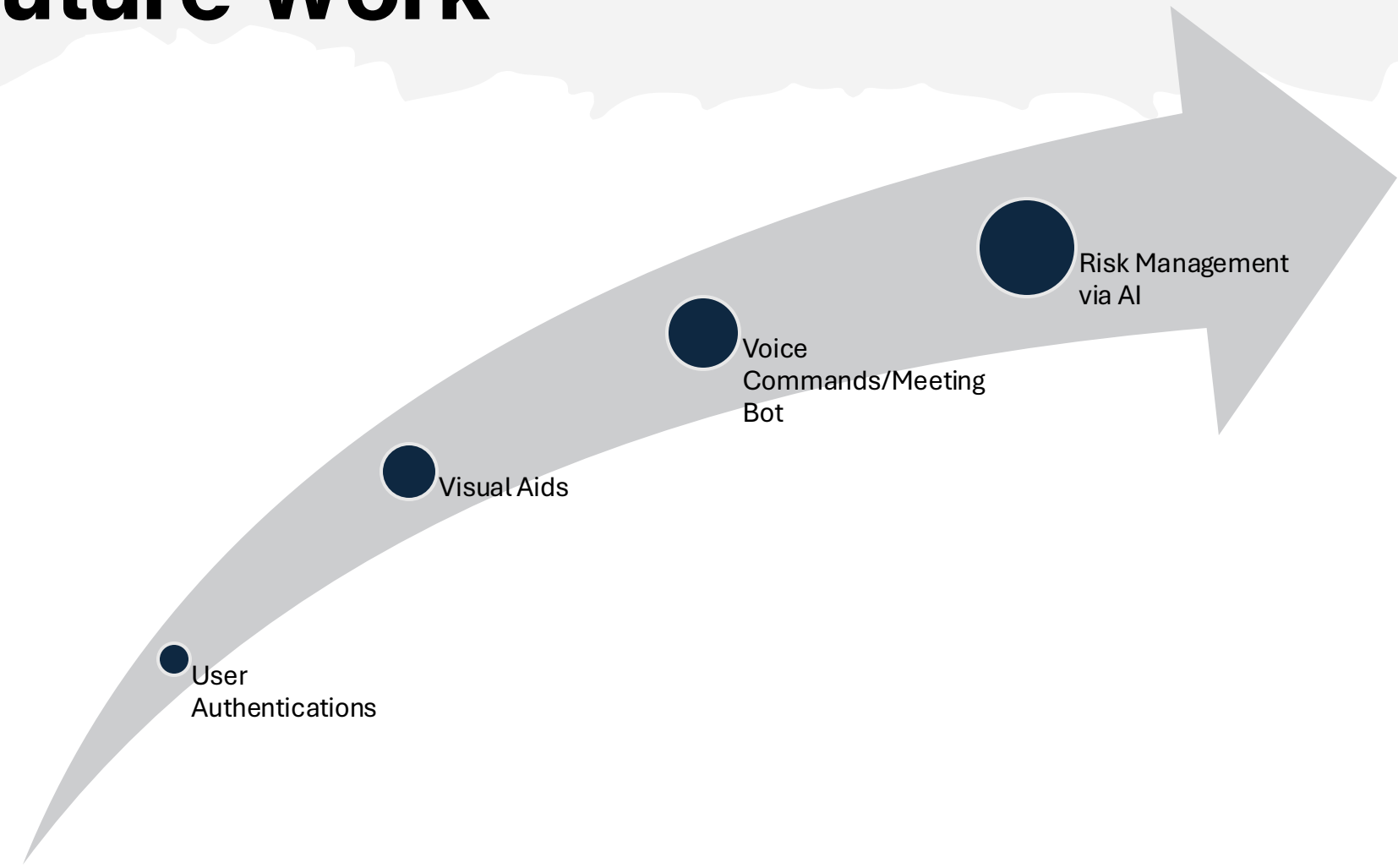
4.1. Summary of Key findings

We developed an AI Assistant to support DI project managers by automating routine tasks using low-code tools. A review of existing research and systems showed limited end-to-end solutions. Our system uses a microservices architecture with Docker containers for scalability and was implemented using n8n and Ollama. After successful testing on locally, the assistant proved effective in project management needs with smooth integration, automation, and a user-friendly WebUI.

4.2. Reflection

- Microservices architecture + Docker improved scalability and modularity.
- The survey for requirement gathering, helped lot to prioritized tasks and more understandable of the real use cases.
- Learn more AI tools, integrations and fast development using N8N framework.
- AI integration showed strong potential benefits but needs careful handling for better accuracy.
- Due to time constraints, cloud deployment wasn’t achieved. Instead, the system was deployed on the company server for testing purposes.

4.3. Future Work




5. Demo