INVESTMENTHELPER-AI

Hakan Muluk Emir Şahin Dilli Mehmet Onur Özdemir

DEMO

https://investmenthelper-ai.github.io/officialwebsite/

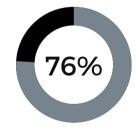
CS491 - T2430



Start Slide

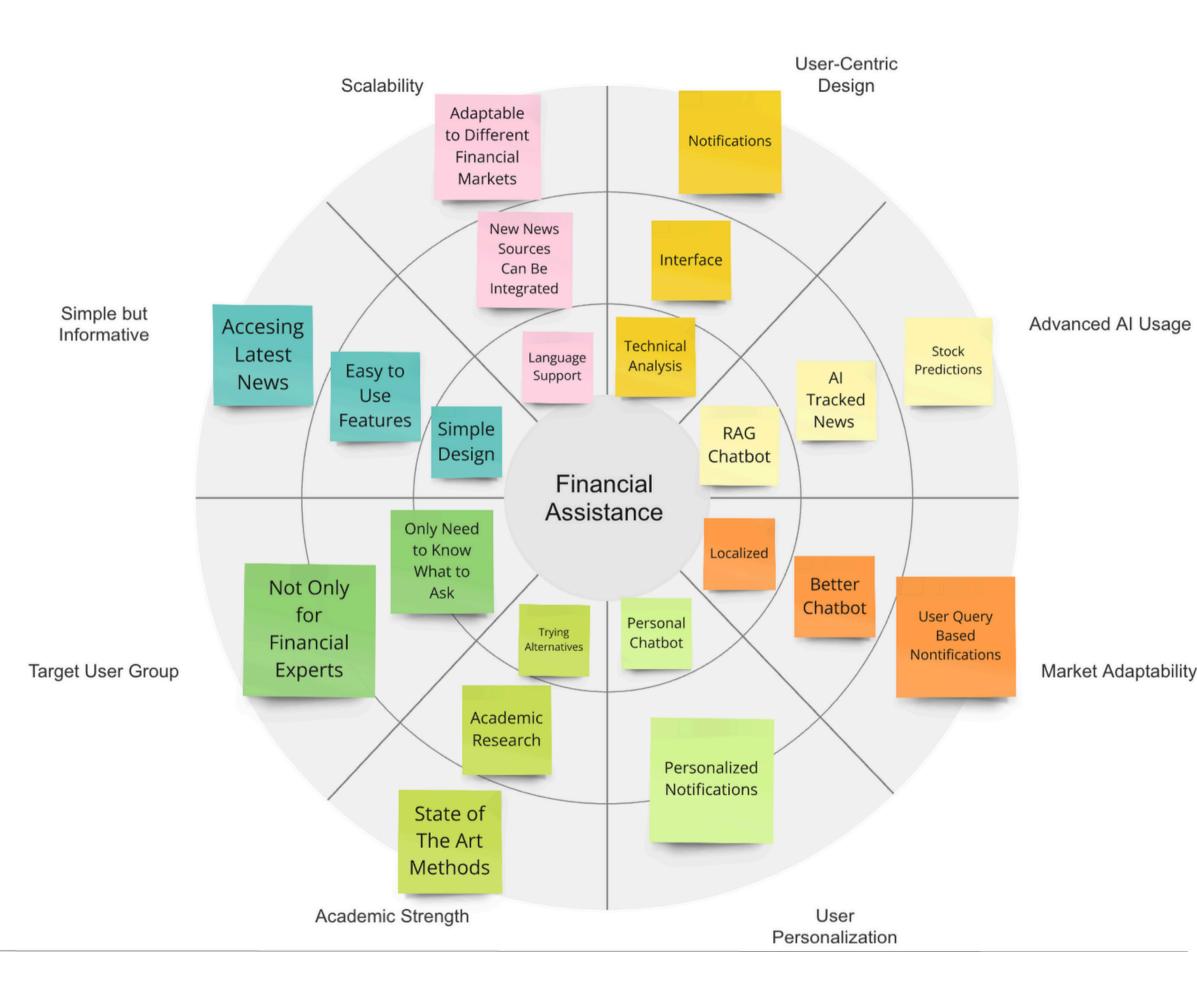
INNOVATION WHEEL

Innovative aspects of our project.



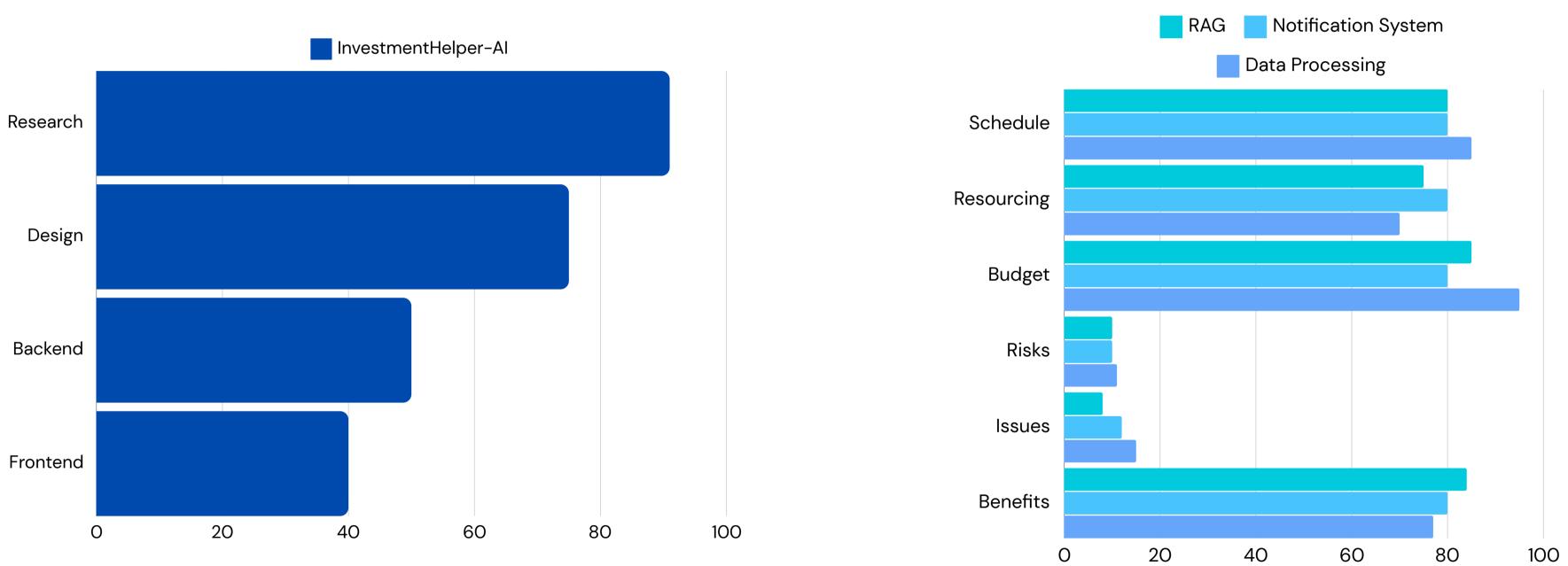
Survey for Potential Users

19 out of 25 people claimed that they would use this website.



Project Status

Progress of our Project in different dimensions.

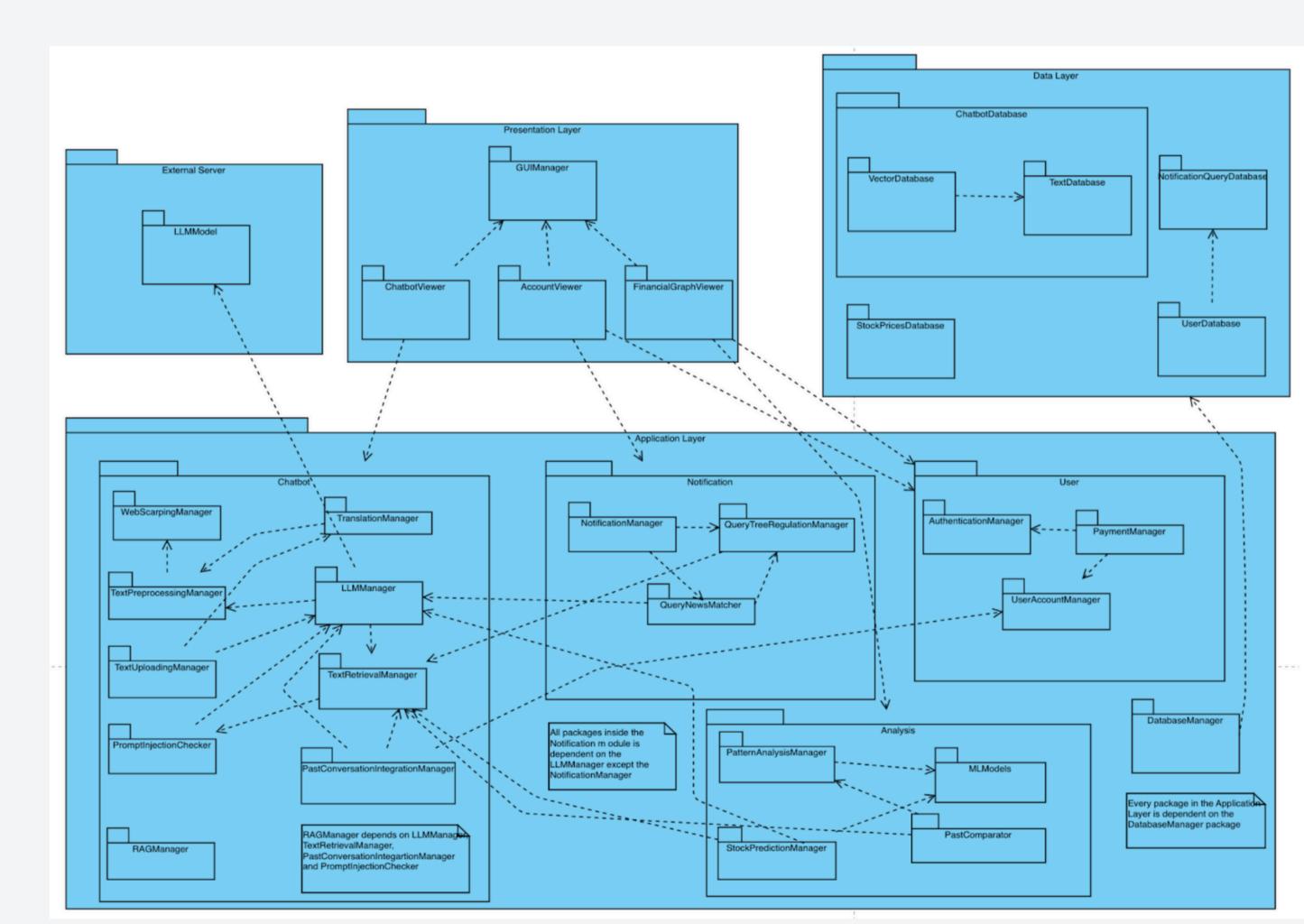


Task Name E	2024-09			2024-1	2024-10				2024-11	
	09	15	22	29	06	13	20	27	03	
Parsing KAP Excel File										
Translation of KAP Documents										
Table to Text Conversion Research										
Table to Text Conversion with Semantic Chun										
Creation of MD File as the Preprocessed KAP										
RunPod Setup for LLMs										
Single Hop Research										
Prompt Preparation For Fivelet Extraction						-				
Neo4j Database Setup and Vector Indexing						->				
MongoDB Setup										
Followup Query Handling										
Setting the Single Hop Retrieval Pipeline	•									
Selection of Retriever Model										
Multi Hop Question Research										
General Question Research										
Adding Self-RAG for Reducing Hallucination										
LangGraph Setup and Chainlit Integration										
TradingView Library Setup										
Stock Price Charts for Frontend										
Screener Page for Frontend										
Login and Other Frontend Pages										
RAPTOR Paper Research										
Clustering of Notification Queries										
One Layer Notification System										



Three Tier Architecture

Composed of Subsystems



Academic Analysis

RAPTOR: Recursive Abstractive Processing for Tree-Organized Retrieval

ICLR 2024 Conference Paper

Self-Rag: Learning to Retrieve, Generate, and Critique Through Self-Reflection

ICLR 2024 Conference Paper

Lost in the Middle: How language models use long contexts

Stanford, Berkeley, 2023

From Local to Global: A Graph RAG Approach to Query-Focused Summarization

Microsoft, 2024

Text Embeddings by Weakly-Supervised Contrastive Pretraining

Microsoft, 2024

Adaptive XGBoost for Evolving Data Streams

Telecom ParisTech, Institut Polytechnique de Paris, 2020