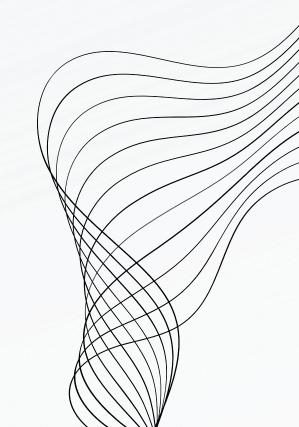


activity definition



## Topic 1: Knowledge Base and Taxonomy

Activity	Jacopo Raffi	Nicola Emmolo	Cosimo Botticelli (T8)	Alessandro Querci (T6)	Giovanni Bellini (T2)	Riccardo Parente (T4)	Davide Cerioli (T3)
Digital Twin	A	R	-	-	-	-	-
Identify most relevant KPIs	Α	R	С	-	-	-	С
Define KPI Taxonomy	R	Α	С	С	-	-	-
Research of implementation tools	R	A	-	-	-	-	-
Database Schema Diagram	R	Α	-	-	С	-	-
Implement the KB	Α	R	-	-	-	-	-
Evaluate KB & required comp. resources	A	R	-	-	-	-	-
Integrate KB with Al agent	R	Α	-	-	<b>-</b>	С	-

## Topic 2: Data Architecture and Storage

Activity	Emiliano Sescu	Giovanni Bellini	Francesco Di Luzio (T4)	Davide Bulotta (T6)	Francesco Paolo Liuzzi (T7)
Scalable DB blueprint	A	R	-	С	-
Real-time data DB	R	A	-	-	С
Long-term storage DB	A	R	-	-	С
DB integration with KPI engine & AI agent	A	R	C	•	-
Evaluate & improve DB performances	R	A			-
Backup & disaster recovery strategy	R	A	-	-	-

## Topic 3: Data Processing

Activity	Davide Cerioli	Seyed Hossein Hassanzadeh	Costanza Galante	Jacopo Raffi (T1)	Tommaso Di Riccio (T5)	Davide Marchi (T7)
Raw Data Analysis for Trends, Outliers and Missing Values	A	R	R	-	C	-
Feature Engineering for Stationarity, Filtering and Normalization	A	R	R		C	-
Data Elaboration: Traditional Machine Learning	R	R	A	-	-	-
Data Elaboration: Machine Learning and Neural Networks	R	A	R	С	C	C

# Topic 4: API and Integration

Activity	Riccardo Parente	Francesco Di Luzio	Alberto Dicembre	Jacopo Raffi (T1)	Giovanni Bellini (T2)	Davide Cerioli (T3)	Davide Bulotta (T6)	Francesco Paolo Liuzzi (T7)	Cosimo Botticelli (T8)
API architecture analysis and definition of the requirements	C	A	R	C	C	C	C	-	-
API architecture design	A	R	C	-	-	-	ŀ	С	-
API architecture design roadmap	A	R	С	-	-	-	-	-	-
API architecture documentation	R	С	A	-	-	-	-	-	-
Configuration of the DB interaction	С	A	R	-	_	-	-	-	_
API implementation for data access (CRUD)	A	R	С	-	С	С	-	-	-

## Topic 4: API and Integration

Activity	Riccardo Parente	Francesco Di Luzio	Alberto Dicembre	Jacopo Raffi (T1)	Giovanni Bellini (T2)	Davide Cerioli (T3)	Davide Bulotta (T6)	Francesco Paolo Liuzzi (T7)	Cosimo Botticelli (T8)
API implementation for GUI interaction	R	С	A	a a			С	-	
API integration with Knowledge base	С	A	R	С		1	1	-	
API integration with KPI engine	R	С	A	-	-	-	-	-	С
API integration with BI tools	C	A	R	-	-	-	-	-	-

## Topic 5: RAG and Generative Al

Activity	Giuseppe De Marco	Michele La Barbera	Francesco Aliprandi	Tommaso Di Riccio	Francesco Paolo Liuzzi (T7)
RAG state of the art analysis	R	A	С	I	-
Design a multimodal RAG agent architecture for basic functionalities (user query)	A	R	-	С	C
Implement RAG architecture	-	C	A	R	-
Test of basic functionalities	С	1	R	A	-
Makes the agent able to produce KPI	-	С	R	A	-
Makes the agent able to produce dashboards	R	A	-	С	<b>-</b>

## Topic 5: RAG and Generative Al

Activity	Giuseppe De Marco	Michele La Barbera	Francesco Aliprandi	Tommaso Di Riccio
Makes the agent able to produce resumes	A	R	-	-
Unit tests	С	-	A	R
Makes the agent able to interact correctly with real time data	R	A	С	С
Evaluation of resources needed	С	-	R	A
Final tests	A	R	-	C

# Topic 6: UI and UX

Activity	Davide Bulotta	Alessandro Querci	Emiliano Sescu (T2)	Nicola Emmolo (T1)	Alberto Dicembre (T4)	Riccardo Berni (T7)	Francesco Aliprandi (T5)
Initial GUI mockup	С	R	A	C	-	-	-
User flow wireframe	R	R	A	С	1	-	С
Initial frontend architecture	R	A	С	-	-	С	-
Global Styles and Themes for GUI	A	R	С	-	-	-	-

# Topic 6: UI and UX

Activity	Davide Bulotta	Alessandro Querci	Emiliano Sescu (T2)	Nicola Emmolo (T1)	Alberto Dicembre (T4)	Riccardo Berni (T7)	Francesco Aliprandi (T5)
Implement the basic GUI for the KPI	R	A		-	=	-	-
Style basic GUI and KPI Dashboard components	A	R	С	С	-	-	-
Implement the Interactive GUI for the AI agent	R	A	-	-	-	-	-
Style Interactive GUI components for the AI agent	A	R	-	-	-	-	-
Integration with Backend	R	A	-	-	С	-	-
Testing GUI and final adjustments	A	R	R	С	-	-	-

#### Topic 7: Security, Privacy and Al Explainability

Activity	Francesco Paolo Liuzzi	Davide Marchi	Riccardo Berni	Nicola Emmolo (T1)	Giovanni Bellini (T2)	Davide Bulotta (T6)	Davide Cerioli (T3)
System Security Requirements	-	Α	R	-	С		-
System Privacy Requirements	R	-	A	-	-	-	-
XAI Requirements and Supported critical decisions	Α	R	-	-	-	-	-
Encryption Protocol Implementation	R	-	A	С	С	-	-
Access Control Implementation	-	A	R	-	-	-	-
First XAI Solution Implementation	Α	R	-	-	-		-
System Security Testing	Α	-	R	-	-	С	-
Security & Vulnerability Report	R	Α	-	-	-	-	С
XAI Report on supported critical decisions	-	R	Α	-	-	-	-

## Topic 8: KPI Calculation Engine

	Activity	Cosimo Botticelli	Gemma Ragadini	Nicola Emmolo (TI)	Jacopo Raffi (T1)
	Engine Architecture Design	A	R	-	-
	KPI Engine Implementation	R	A	С	С
	Support for Dynamic KPIs	A	R	-	-
ı	Integration of real-time data	R	A	-	-
	Testing and debugging	A	A	-	-

