encrypt

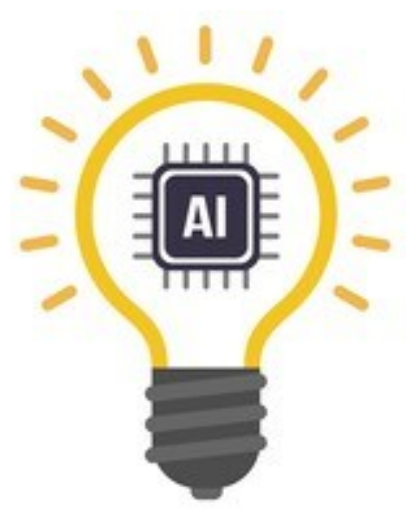**A scalable and practical privacy-preserving framework**
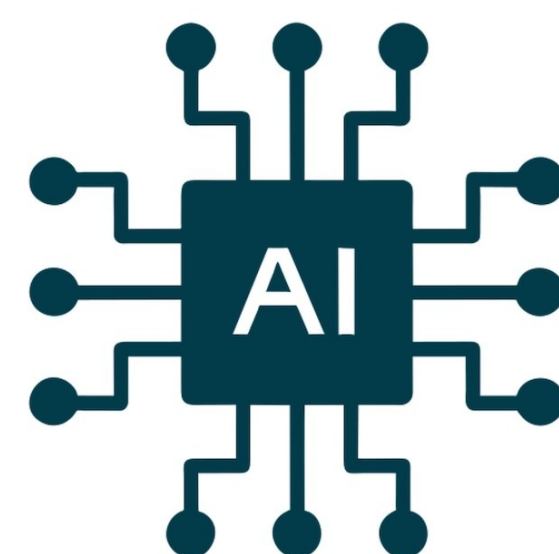
AI-Based Recommendation System

AI-Based Recommendation for Privacy-Preserving Technologies

OBJECTIVE
Recommend the best-fit privacy preserving technology for each data processing scenario — based on sensitivity, size and constraints.

FEATURES
- Fuzzy Logic–based
- Considers sensitivity, size, time, cost
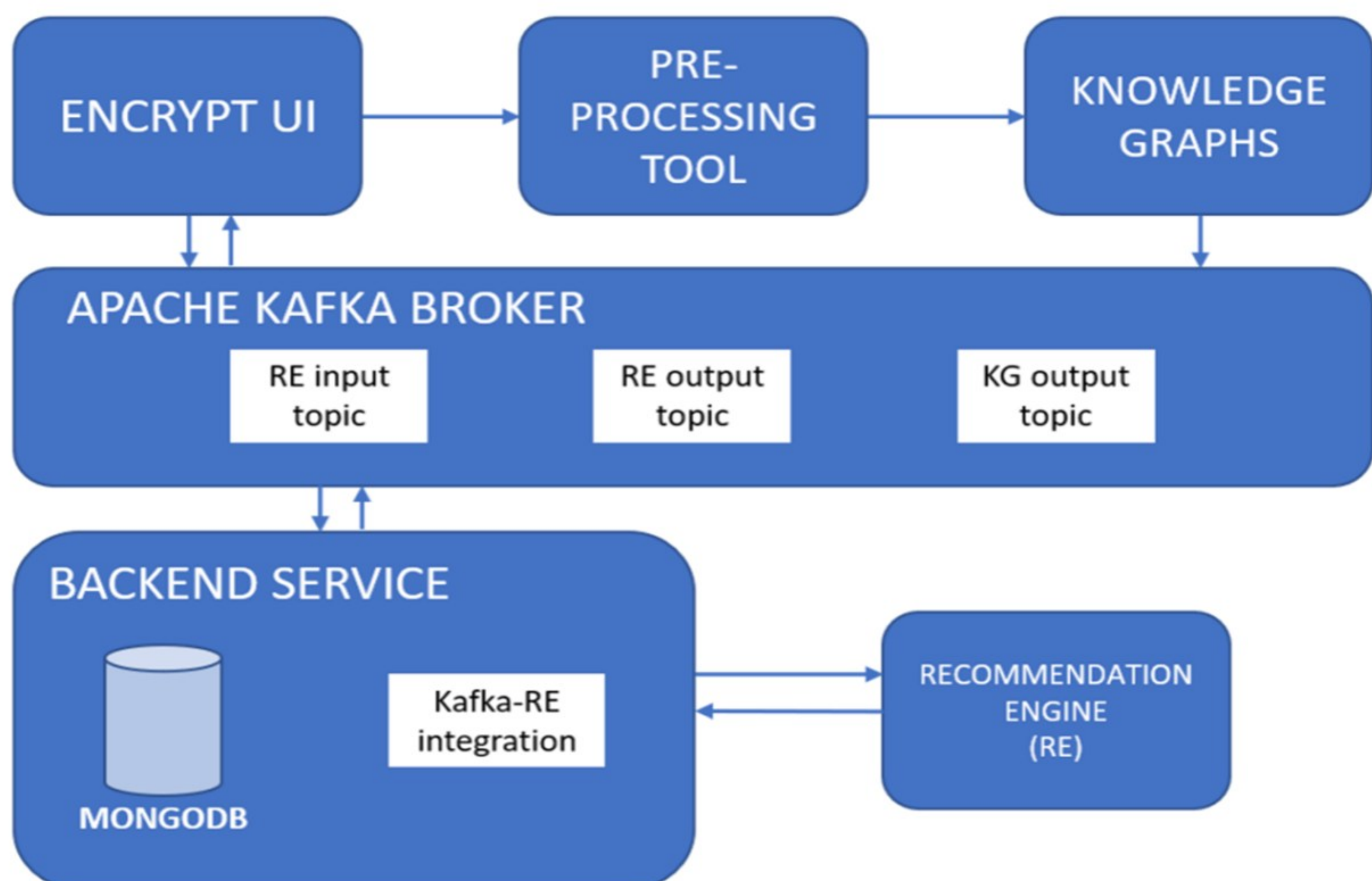- Tailored justification given

Inputs

Factor	Source
Data Sensitivity	Data Owner
Data Size	Auto-calculated
Computational Intensity	Researcher
Time/Performance/Cost	Researcher
Data Type & Location	Data Owner

Outputs
- Recommended Privacy Preserving Technolgoy (DP, FHE, TEE, or Hybrid)
- Configuration Parameter (if needed)
- Derived from the fuzzy logic rules

Why Fuzzy Logic?

- No training data needed
- Captures uncertainty and expert knowledge
- Transparent and explainable decisions
- Scalable with new rules and variables

ENCRYPT UI → PRE-PROCESSING TOOL → KNOWLEDGE GRAPHS

APACHE KAFKA BROKER
- RE input topic
- RE output topic
- KG output topic

BACKEND SERVICE
- MONGODB
- Kafka-RE integration

RECOMMENDATION ENGINE (RE)