

# FINAL ASSIGNMENT — UML DIAGRAMS DISTRIBUTED TO 5 MEMBERS

Below is a **balanced distribution**, ensuring every member works on diagrams relevant to *their subsystem*.

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## **Member 1 — Scraping, Data Ingestion & Source Management**

(Aligned with proposal responsibilities: scraping, connectors, ingestion engine)

### ✓ Assigned UML Diagrams:

1. Use Case Diagram – Scraping & Source Management
  2. Component Diagram – Scraper Engine + Cloud Ingestion Module
  3. Class Diagram Section – source, source\_link, organization\_source, raw\_review
  4. Sequence Diagram – Scraping Workflow  
(Scraper → Cloud API → raw\_review → processing)
  5. Activity Diagram – Scraper Job Execution Flow
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## **Member 2 — AI/ML, NLP Pipeline, Embedding & RAG Engine**

(Proposal includes AI inference, NLP engine, embeddings, pipelines)

### ✓ Assigned UML Diagrams:

1. Use Case Diagram – AI Processing & Insights Generation
  2. Component Diagram – AI Pipeline (MiniLM, Embedding Engine, RAG, LLM Gateway)
  3. Class Diagram Section – processed\_review, review\_analysis, embedding\_job, knowledgebase\_item, entity
  4. Sequence Diagram – AI Reply Generation Flow
  5. Activity Diagram – AI Pipeline (Classify → Embed → Retrieve → Generate → Store)
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## **Member 3 — Competitor & Domain Analysis, Insight Analytics**

(Proposal: domain comparisons, competitor evaluations, analytics UI)

### ✓ Assigned UML Diagrams:

1. Use Case Diagram – Competitor Management & Domain Analytics
2. Component Diagram – Analytics Engine + Cache Layer
3. Class Diagram Section – domain, competitor tables, analytics-related entities

4. Sequence Diagram – Competitor Comparison Flow
  5. Activity Diagram – Analytics Aggregation Process
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## **Member 4 — Reviews Module, AI Replies, Insights Dashboard**

(Proposal: core customer-facing module – reviews, reply generation, insights)

### ✓ Assigned UML Diagrams:

1. Use Case Diagram – Reviews & AI Reply Editor
  2. Component Diagram – Review Module + UI + backend API
  3. Class Diagram Section – review\_category, review\_type, processed\_review\_review\_type
  4. Sequence Diagram – Review Detail View + AI Reply Integration
  5. Activity Diagram – Review Filter + Detail View Flow
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## **Member 5 — Authentication, User/Organization Management, Admin System**

(Proposal: User/org settings, admin console, RBAC)

### ✓ Assigned UML Diagrams:

1. Use Case Diagram – Authentication + User & Organization + Admin
2. Component Diagram – Auth System + Admin Backend/Frontend
3. Class Diagram Section – tenant, plan, group, group\_tenant, organization
4. Sequence Diagram – Tenant Signup → Add Organization → Dashboard
5. Activity Diagram – Organization & Group Assignment Workflow