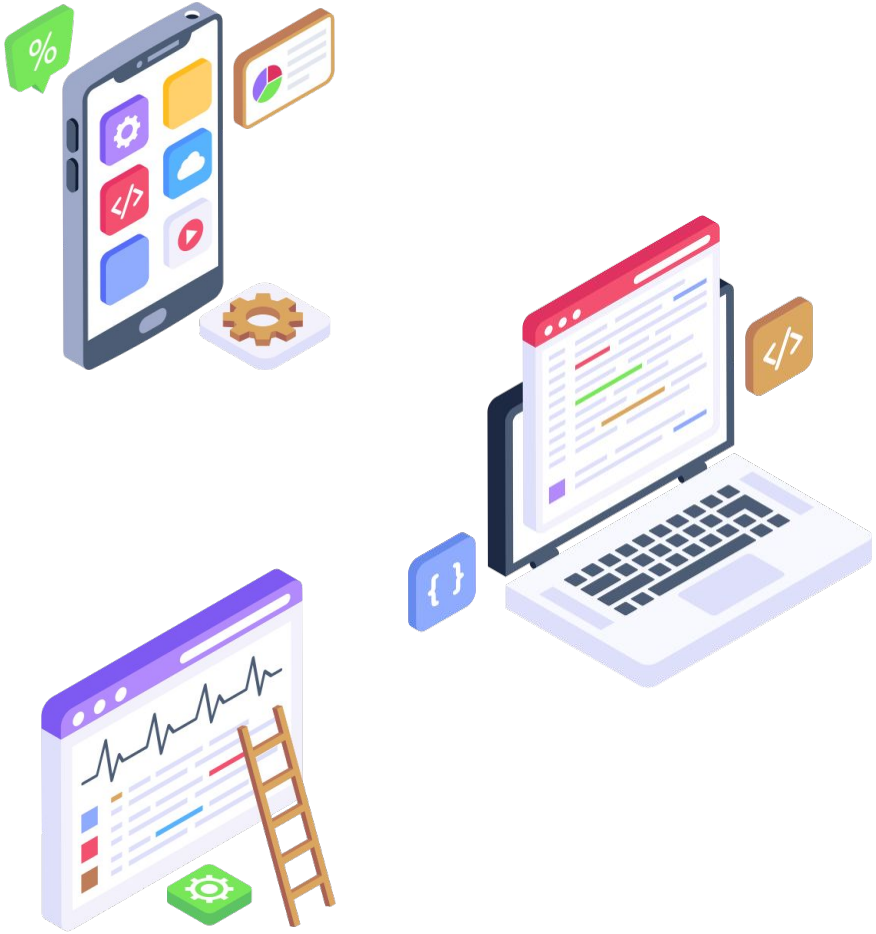


SC4020

Data Analytics & Mining

Group 42

Oscar, Iain, Cheng Yao, Zane

Problem Task Overview

1

Task 1

Symptom Analysis:
Discover symptoms co-occurrence patterns via Apriori Algorithm

2

Task 2

Pattern Mining:
Identify discriminative patterns between malignant and benign tumours using GSP Mining

Key Findings:

- Perfect Confidence Rules- perfect confidence (1.0)
- High lift values - strong positive associations
- Clinical Relevance - demonstrates clinical patterns

Key Findings:

- Concave points demonstrates highest importance across both classes
- Morphological features (radius, area, perimeter) consistently rank in top positions

**more detailed findings can be found in project report*

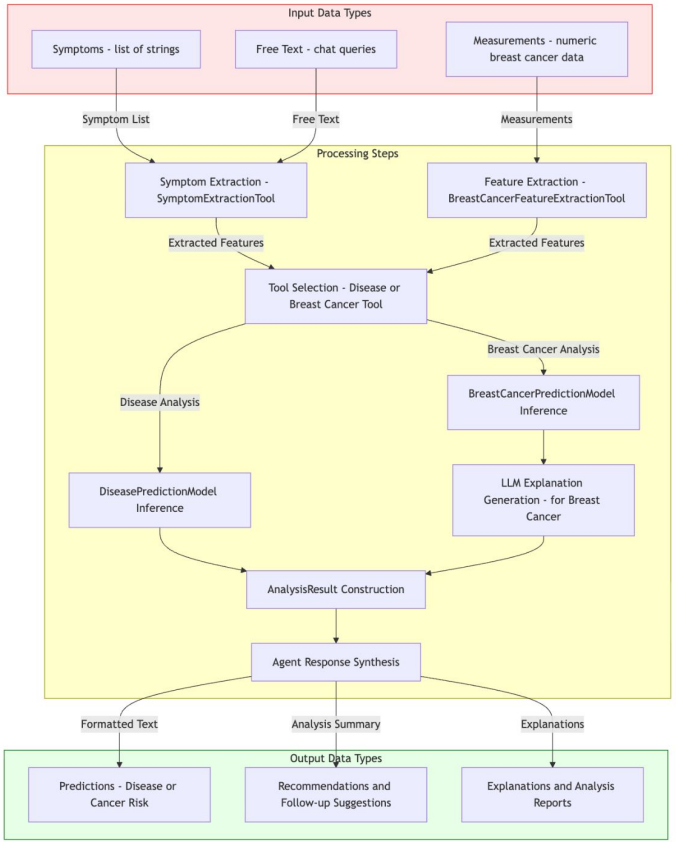
Task 3 - Agentic Medical Analysis AI System

Purpose
A unified multi-agent platform for symptom-based disease prediction and breast cancer feature analysis

Target Audience & Use Case
Patients that want to understand more about their symptoms, Cancer Researchers looking for data insights

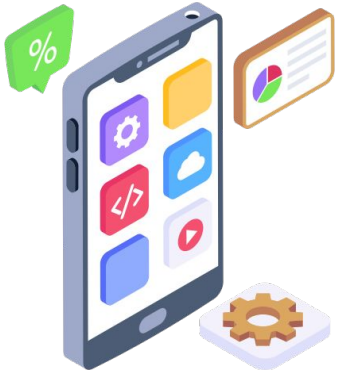
Tech Stack
Multi-agent CrewAI framework, orchestrates different specialised AI agents for specific tasks

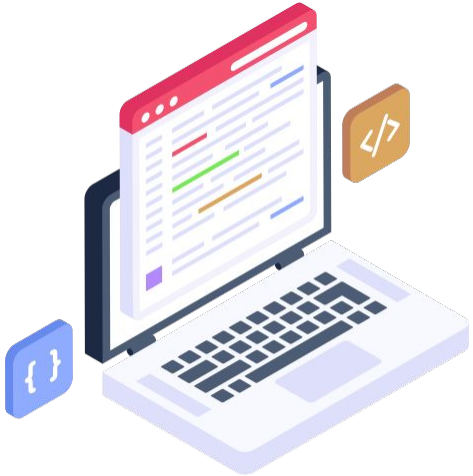
Tools
Tool 1: Preliminary symptom analysis (disease diagnosis) Tool 2: Run real time analysis from our WBCD pattern findings

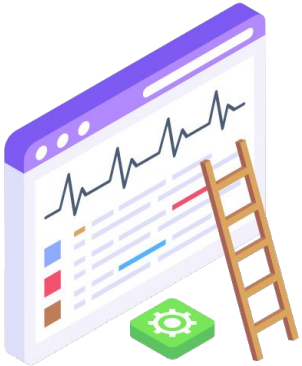


Task 3 - Agentic Medical Analysis AI System

Demo







Thank You

SC4020 | Group 42