

Week-01 (CM2603)

#Week-1

#CM-2603

Important

This module covers the content required for a data science project that will last throughout the semester. Based on the current potentials for a development project, you are required to find a topic that is almost original in terms of utilizing generative AI to complete a task.

Group Members

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Workflow for semester 1

1. Week 3 - Literature Review Submission
2. Week 5 - Project Proposal Submission
3. Week 9 - System Requirement Specification (SRS) Submission

Project Ideas

Generative AI based chatbot for medical prescription issuing

General brief

In terms of what this project would cover around prescription issuing it may be seen that there are many major disease that have plenty of documentation provided for it but limited access to consultations with licensed professionals, so given the fact that most symptoms are documented and may be retained into a large LLM (large language model) based dataset. Furthermore, it may be seen that most persons that go in for consultations have symptoms that tend to match similar criteria's, so instead of paying a fee to have a consultation with a professional (which is costly), users may instead regard the use of a chatbot!

1. Person 1 - Diabetes (Type 1 or Type 2)

1. Data Gathering Focus: Symptoms, treatment protocols, medication (insulin, oral medications), dietary advice, and blood sugar monitoring.
2. Project Related Focus:
2. Person 2 -Hypertension
 1. Data Gathering Focus: Symptoms (headaches, chest pain), medication (ACE inhibitors, beta-blockers), lifestyle changes, and regular monitoring requirements.
 2. Project Related Focus:
3. Person 3 - Asthma
 1. Data Gathering Focus: Symptoms (wheezing, shortness of breath), inhaler types, long-term control medications, and lifestyle triggers.
 2. Project Related Focus: Work on the API to communicate with the chatbot for a user friendly interface (eg: JDA, Django for web based communication)
4. Person 4 - Chronic Kidney Disease (CKD)
 1. Data Gathering Focus: Symptoms (fatigue, swelling), stages of CKD, medications (ACE inhibitors, dietary phosphate binders), dialysis information, and lifestyle recommendations.
 2. Project Related Focus:

Objection Detection API for traffic Analysis

General brief

TBA

1. Person 1 -
 1. Data Gathering Focus:
 2. Project Related Focus:
2. Person 2 -
 1. Data Gathering Focus:
 2. Project Related Focus:
3. Person 3 -
 1. Data Gathering Focus:
 2. Project Related Focus:
4. Person 4 -
 1. Data Gathering Focus:
 2. Project Related Focus:

Student Performance Prediction

General brief

TBA

1. Person 1 -

1. Data Gathering Focus:
2. Project Related Focus:
2. Person 2 -
 1. Data Gathering Focus:
 2. Project Related Focus:
3. Person 3 -
 1. Data Gathering Focus:
 2. Project Related Focus:
4. Person 4 -
 1. Data Gathering Focus:
 2. Project Related Focus:

Health Monitoring System

General brief

TBA

1. Person 1 -
 1. Data Gathering Focus:
 2. Project Related Focus:
2. Person 2 -
 1. Data Gathering Focus:
 2. Project Related Focus:
3. Person 3 -
 1. Data Gathering Focus:
 2. Project Related Focus:
4. Person 4 -
 1. Data Gathering Focus:
 2. Project Related Focus: