

# Final Project

## AI Project Documentation

### Project Proposal - 2

COSC - 419 - 001 - Topics in Computer Science

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## 1. Project Overview

- **Project Name:** Project Proposal 2
  - **Objective:** This project aims to use language models to answer ethical use cases.
  - **Scope:** Extract and analyze ethical case from a website using a local model and ChatGPT
  - **Expected Outcome:** collect responses from the models and store them into text files
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## 2. Planning and Setup

- **Initial Research:** ChatGPT, Prof. Mohamad's Notes
  - **Technology Stack:**
    - Python Programming Language
    - Requests, PDFPlumber, Playwright Python
    - Chat GPT 3.5
    - Ollama Phi3 (Local Model)
  - **Timeline:** Project Completion expected date: Saturday, December 7, 2024
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## 3. Data Collection and Preparation

- **Data Sources:**
    - Download the use cases and questions related to each use case from the website:  
[Ethics Unwrapped - Case Studies](#)
  - **Instructions:**
    - Download the use cases and questions related to each use case.
      - Ideally, implement a scraper to automate the download process.
      - Alternatively, you can download them manually (this method is easier but more time-consuming).
    - Provide the use case along with the questions to the language model and save its responses.
  - **Data Cleaning:**
    - Steps to preprocess the data (e.g., handling missing values, normalization).
  - **Challenges Faced:**
    - Data inconsistency: HTML button names were different.
    - Certain Case studies were not downloadable.
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## 4. Model Used

- **Model Selection:** Chat GPT 3.5

- **Evaluation Metrics:**
    - Manually verified if the results were relevant to the case studies
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## 5. Issues and Challenges

- **Technical Challenges:** Implementing Ollama Ph3 required memory and storage requirements beyond current personal laptop capabilities
  - We used google Colab with the paid terminal environment to setup up Ollama Ph3.
  - **Non-Technical Challenges:** Time Constraints as we are full time students with Full Time jobs.
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## 6. Lessons Learned

- **Key Takeaways:** It is possible to analyse case studies with chat gpt API integration into future projects.
  - **Recommendations:** I recommend exploring Ollama Phi3 for integration into the 470/471, Ethical Dashboard project for Case Studies analysis.
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## 7. Future Work

- **Improvements:** use multi threading for the Playwright browser automation for faster automation script execution time.
  - **Extensions:** Implement Ollama Ph3 for Case study analysis using Google Colab with A100
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