INSTITUT D'ENSEIGNEMENT SUPÉRIEUR DE RUHENGERI

FACULTY OF APPLIED FUNDAMENTAL SCIENCES

DEPARTMENT OF COMPUTER SCIENCE

OPTION OF SOFTWARE ENGINEERING

ARTIFICIAL INTELIGENCE

GROUP 4 ASSIGNMENT

Year III SWE Group B

Members

IRUTABYOSE Yoramu 23/22764

MASONGA SHEMA Prince 23/20861

ISHIMWE Kevin 23/22823

IZABAYO HARANIRA Jean Luc Severin 23/22493

ISHIMWE HABYARIMANA Regis 23/19890

ISHIMWE HITAYEZU Herve 23/22202

Musanze, November 2024

Scientia et Lux

B.P. 155
Ruhengeri
Rwanda

T : +250 788 90 30 30
: +250 788 90 30 32
W : www.ines.ac.rw
E : inesruhengeri@yahoo.fr

Day 3 Report:

Group #4

Final Development, Testing & Deployment

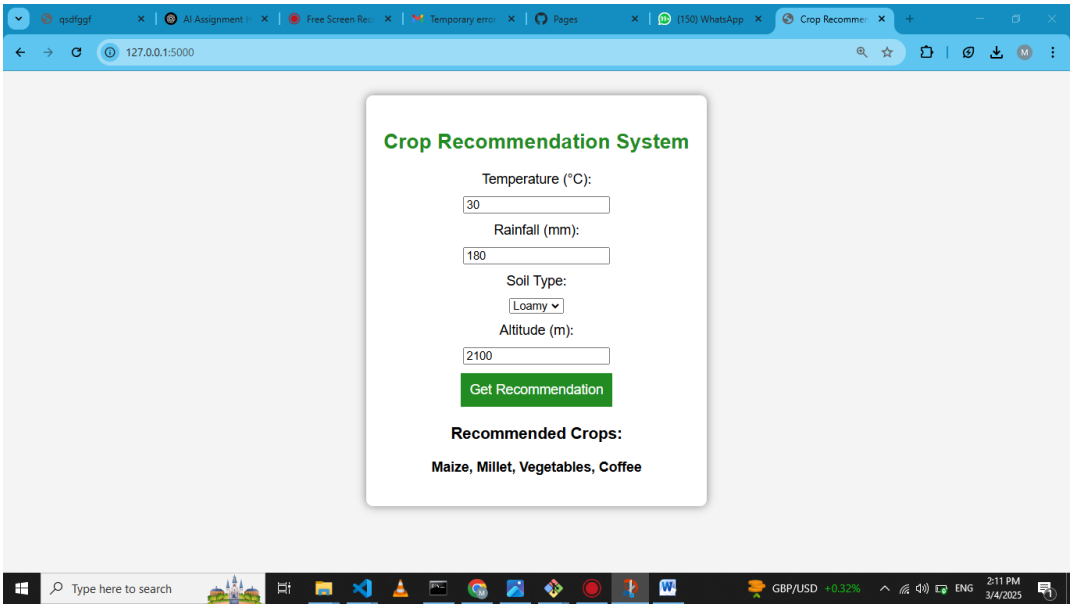
1. Final Development

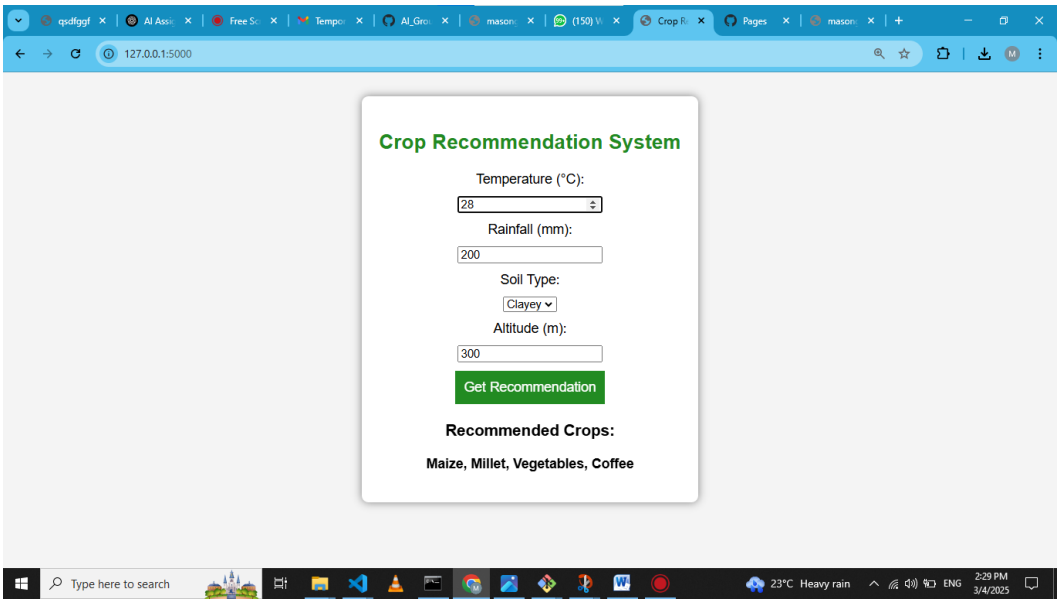
- **Full Rule Implementation:**
  - Added additional rules to enhance the accuracy of crop recommendations.
  - Optimized rule-based logic for better performance.
  - Integrated error handling to prevent invalid inputs.

2. System Testing & Documentation

- **Testing Scenarios:**
  - Verified correct crop recommendations for different climate inputs.
  - Tested system stability under various user interactions.
  - Ensured smooth user experience on Binder deployment.

Screenshots:

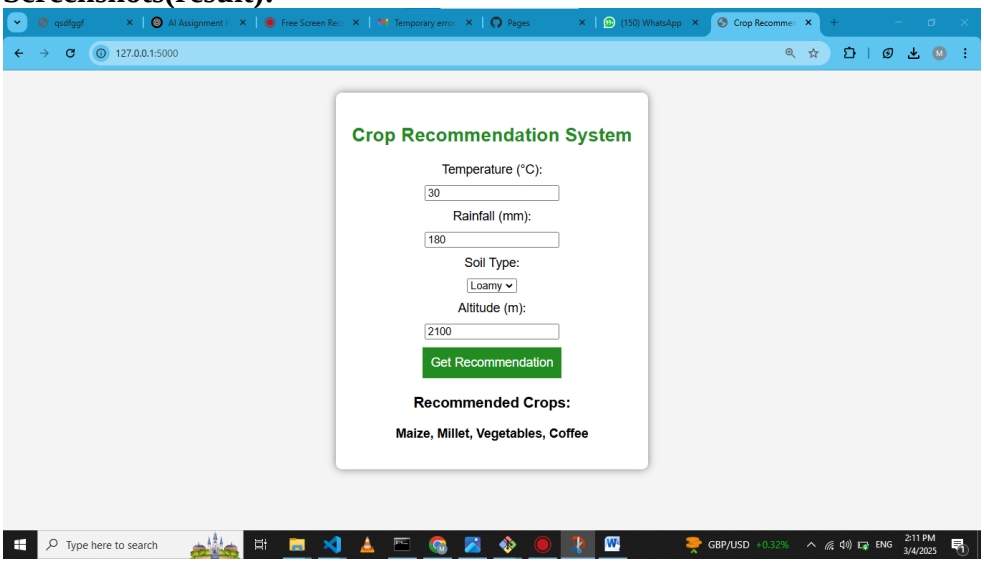




3. User Manual

- **How to Use the System:**
  - Open the web application using the GitHub Pages link.
  - Enter temperature, rainfall, soil type, and altitude.
  - Click ‘Get Recommendation’ to receive suggested crops.
  - Review the results displayed on the screen.

Screenshots(result):



4. Deliverables

- **GitHub Pages Link:** *(* **https://masonga-dev.github.io/AI_Group4_ExpertSystem_Assignment2/***)*
- **PDF Report:** *(This document, including all sections with screenshots added)*

5. Conclusion

- The expert system for agricultural crop recommendation is fully developed.
- The system has been successfully tested and deployed.

GitHub & Deployment Links:

- **GitHub Repository:** Masonga-Dev/AI_Group4_ExpertSystem_Assignment2
- **Binder Web App:** Launch App
- **GitHub Pages:** **https://masonga-dev.github.io/AI_Group4_ExpertSystem_Assignment2/**