CSC462: Artificial Intelligence - I

SPRING 2025

LAB Project: Development of an Artificial Intelligence based application

In this project, you are going to develop an application of your choice. You are free to develop any application using python or of own choice platform like following are:

Sentiment Analysis: Build a model to classify text (e.g., movie reviews, tweets) as positive, negative, or neutral. Use libraries like NLTK or TextBlob for text preprocessing and sentiment analysis.
Chatbot: Develop a simple chatbot using libraries like NLTK or Rasa to engage in basic conversations. Implement rule-based or machine learning-based approaches for understanding and responding to user queries.
Games: Design and implement the behaviors of Non-Player Characters (NPCs) in a simple game world using FSMs. For example, an NPC could patrol an area, chase the player if spotted, flee if low on health, etc.

Start with a clear problem statement and project scope: This will help you focus your efforts and avoid scope creep.

<Project Title>

(Valid Title reflecting scope and objectives)

Submitted by

<Student Name>, <Registration No.>

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<date created>

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Project Category: (Select the major domain of proposed project**)**

○ **A-** System ○**B-** ○ **C-**

Abstract

Provide a one to two paragraph summary of your project. The abstract should give an idea of what your project is trying to achieve. Think of your abstract as a condensed version of your whole project. By reading it, the reader should understand the nature of your project. It should be comprehensive and concise.

1. Introduction

Specify the purpose of this project proposal document along with description detailed background of the system**.** (Usually in 10-12 sentences). **What** problem does your software solve? **What** skills do you expect to learn from this project? (Usually in 14-16 sentences)

2. Proposed System

Brief explain how your system solves the problems mentioned in the introduction. (Usually in 14-16 sentences)

3. Advantages/Benefits of Proposed System

Write down the advantages and benefits of the system you are developing. In other words, you have to mention here advantage of your proposed solution to the existing problem. (Usually in 5-7 advantages)

4. Scope

Write down the scope of your project in a paragraph. Briefly define the main functionalities of the proposed project. Scope defines the boundaries and range of the proposed solution that what would be the part of your project and what will be not. Write down in logical flow with consistency.
(Usually in 14-18 sentences)

5. Modules

Write down the modules of the proposed project. Don't forget to mention special/new features. Briefly explain your one module in 6 to 8 sentences.

Explanation of a Module:

5.1 Module 1: Module Name

5.2 Module 2: Module Name

6. System Limitations/Constraints

Write down the limitations and constraints of the proposed project.
(Usually 2-4 constraints)

7. Tools and Technologies

Mention all the hardware/software tools and technologies with version number which will be used in implementation of the project. Write about the language(s), which you will use for implementation an AI-based, ML-based and deep learning based projects.

Example:

Table 1 Tools and Technologies for Project

	Tools	Version	Rationale
			IDE

Tools And Technologies			
	Technology		Rationale
	Python		Programming language

8. Conclusion

Conclude this document. (Usually 4-5 sentences)

9. References

Mention the books, research papers, web links etc. if any