**Lambton College – Capstone Project**

# \*\*Scope\*\*

The goal is to develop a chatbot that enhances user experience at various parking locations like airports, malls, hospitals, and others. This chatbot will serve as an information hub, addressing user queries about the area and offering basic answers by searching on an FAQ database.

# \*\*Design Approach\*\*

1. \*\*Web Application using Django Framework\*\* To implement this chatbot, a web application will be developed using the Django framework. Django provides a solid foundation for building interactive and user-friendly web applications. The application will act as the interface for users interacting with the kiosk machine.

2. \*\*Machine Learning Model\*\* A crucial component of the chatbot will be a machine learning model designed to process user queries. This model will understand and interpret user input, enabling the chatbot to provide accurate and relevant responses. Natural Language Processing (NLP) techniques will be employed to improve the model's understanding of user intent.

# \*\*Requirements\*\*

1. \*\*Equipment\*\* a kiosk will be used to deploy and test each chatbot iteration, so we can evaluate the performance in an accurate environment.

2. \*\*SQL Server and Data\*\* SQL Server databases will be employed to store and manage the data required for the chatbot's operation. Data related to the locations (airports, malls, hospitals, parking lots) and frequently asked questions can be stored and retrieved from this database.

By combining Django's web application framework with a robust machine learning model and well-structured environments, the chatbot for kiosk machines can effectively assist users in obtaining information and answers to their queries in a seamless and efficient manner.

# \*\*Lambton College Team Members\*\*

* Manuel Paredes Holguin
* Gurdaan Walia
* Keerat Singh
* Muzammil Lakdawala