Logistic Chatbot

END TERM REPORT

By

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Month-Year:03-20

Student Declaration

This is to declare that this report has been written by me/us. No part of the report is copied from other sources. All information included from other sources have been duly acknowledged. I/We aver that if any part of the report is found to be copied, I/we are shall take full responsibility for it.

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BONAFIDE CERTIFICATE

Certified that this project report “LOGISTIC CHATBOT is the bonafide work of “Mr.MAITREYA PANJABI and Mr.ABHISHEK MISHRA who carried out the project work under my supervision.

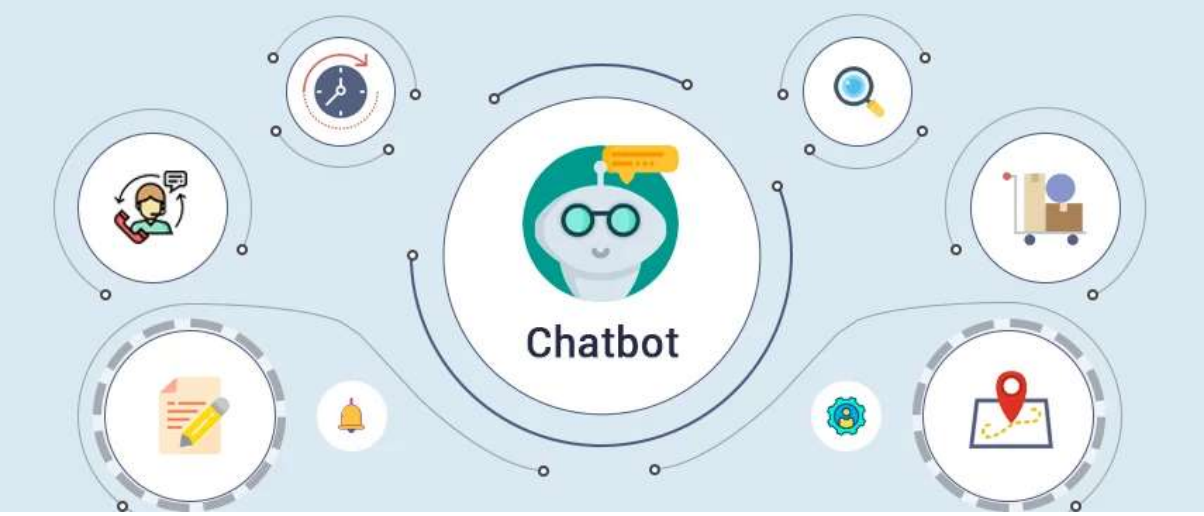
Name of supervisor:Ms.Jasleen kaur

ID of Supervisor=25340

Department of Intelligent Systems

1.Background:

Chatbots have emerged as one of the main tools to ease communication and management for businesses of all sizes. In fact, 85% of all customer interactions are going to be handled without any human involvement by 2020.



Out of many industries leveraging chatbots, the logistics and supply chain business has also found ample use of the technology. In this project, we will explore how chatbots in logistics help supply chain and transportation companies to offer a better service and customer experience.

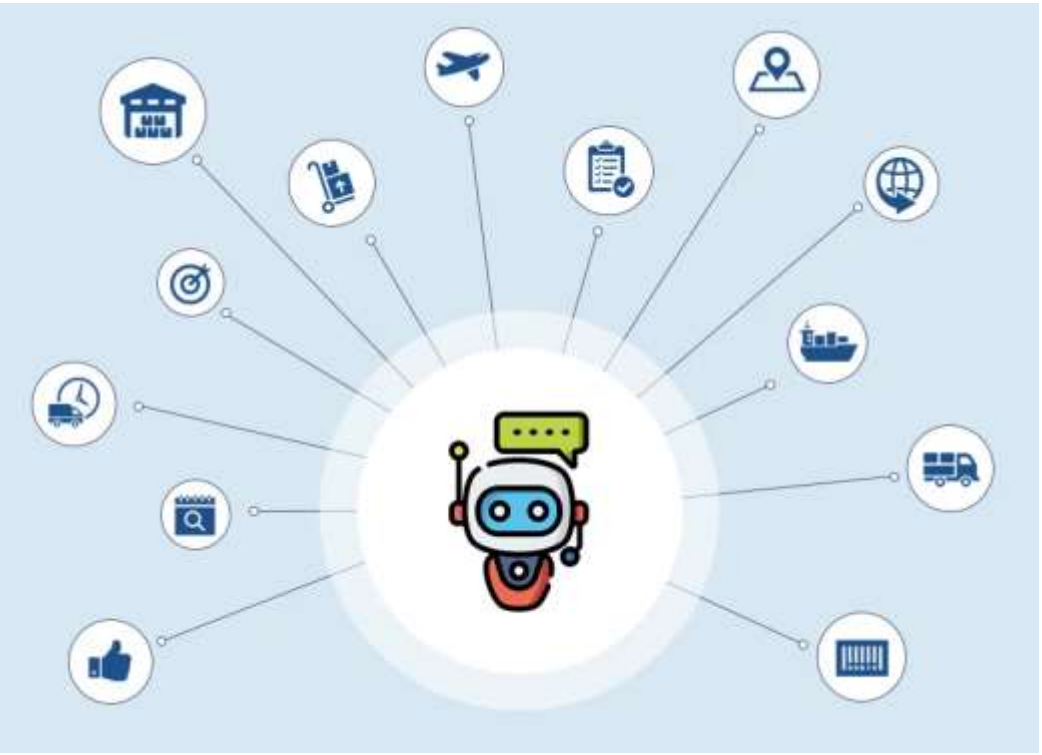
Chatbots in logistics operations can contribute a lot towards a seamless flow of information. The data collected and required for everyday operations can be quickly accessed by employees through a chatbot. A logistics company may use chatbots to handle various forms of data like-

1)Customer orders

2)Warehouse matters

3)Fleet information

4)Personnel information



2.Motivation:

The motivation for doing this project was primarily an interest in undertaking a challenging project in an interesting area of research. The opportunity to learn about a new area of computing not covered in lectures was appealing. This area is possibly an area that I might study at postgraduate level.

3.Outcome of project:

A logistic chatbot has been created which will further help users to chat with bot and get their queries solved.

4.Concrete goals and objectives:

To create a chatbot with improving customer-facing operations, and supply chain operations.

5.Project Description:

1)nltk: The Natural Language Toolkit, or more commonly NLTK, is a suite of libraries and programs for symbolic and statistical natural language processing (NLP) for English written in the Python programming language.

NLP enables the computer to interact with humans in a natural manner. It helps the computer to understand the human language and derive meaning from it. NLP is applicable in several problematic from speech recognition, language translation, classifying documents to information extraction. Analyzing movie review is one of the classic

examples to demonstrate a simple NLP Bag-of-words model, on movie reviews.

2)pickle:

Pickle is used for serializing and de-serializing **Python** object structures, also called marshalling or flattening. Serialization refers to the process of converting an object in memory to a byte stream that can be stored on disk or sent over a network. Later on, this character stream can then be retrieved and de-serialized back to a **Python** object.

3)numpy:

NumPy is a library for the Python programming language, adding support for large, multi-dimensional arrays and matrices, along with a large collection of high-level mathematical functions to operate on these arrays. The ancestor of NumPy, Numeric, was originally created by Jim Hugunin with contributions from several other developers. In 2005, Travis Oliphant created NumPy by incorporating features of the competing Numarray into Numeric, with extensive modifications. NumPy is open-source software and has many contributors.

4)keras:

Keras is an open-source neural-network library written in Python. It is capable of running on top of TensorFlow, Microsoft Cognitive Toolkit, R, Theano, or PlaidML. Designed to enable fast experimentation with deep neural networks, it focuses on being user-friendly, modular, and extensible. It was developed as part of the research effort of project

ONEIROS, and its primary author and maintainer is François Chollet, a Google engineer. Chollet also is the author of the XCeption deep neural network model.

5)json:

JavaScript Object Notation is an open standard file format, and data interchange format, that uses human-readable text to store and transmit data objects consisting of attribute–value pairs and array data types. It is a very common data format, with a diverse range of applications, such as serving as replacement for XML in AJAX systems.

6)Tensorflow:

TensorFlow is a free and open-source software library for dataflow and differentiable programming across a range of tasks. It is a symbolic math library, and is also used for machine learning applications such as neural networks.

7)Random:

You can generate random numbers in Python by using random module. Python offers random module that can generate random numbers. These are pseudo-random number as the sequence of number generated depends on the seed. If the seeding value is same, the sequence will be the same.

6. Description of Work Division in terms of Roles among Students.

Maitreya panjabi:

1)train chatbot(numpy,keras,nltk)

2)questions for chatbot(intents.json)

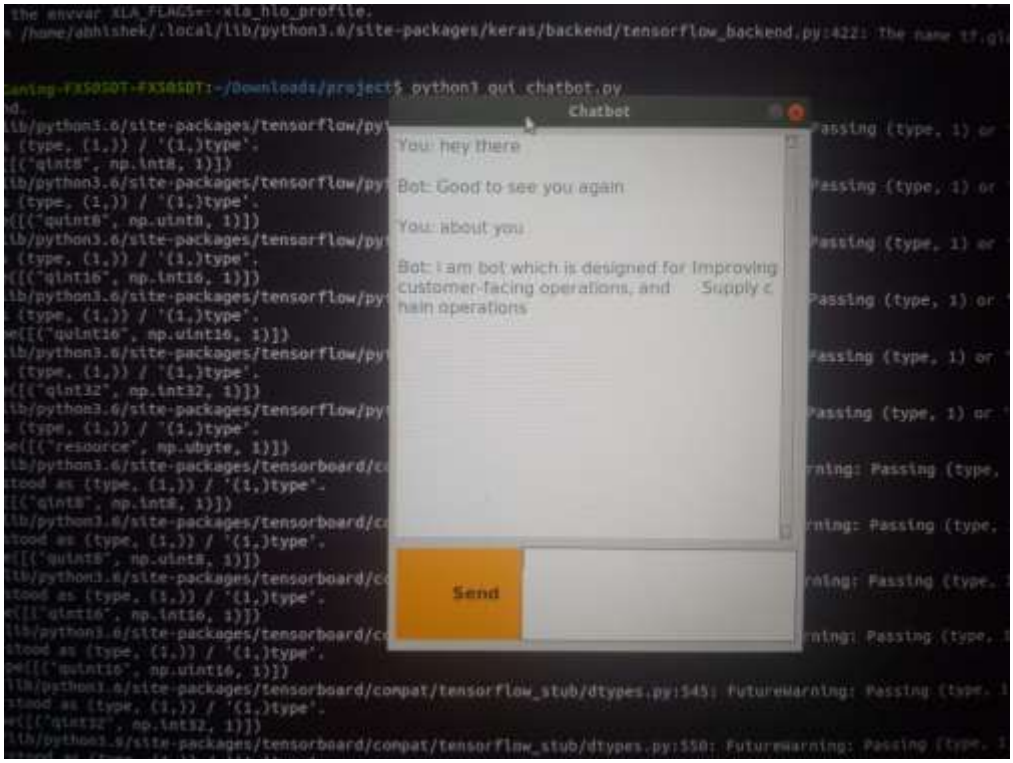
Abhishek Mishra:

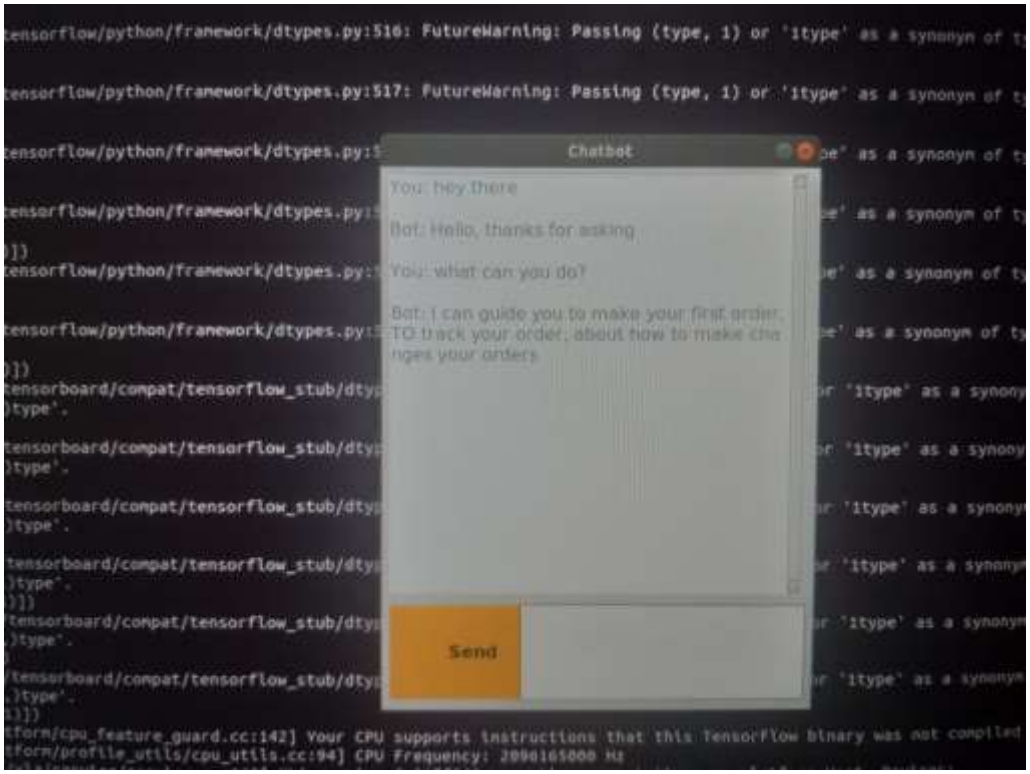
1)gui chatbot(tkinter,keras,nltk)

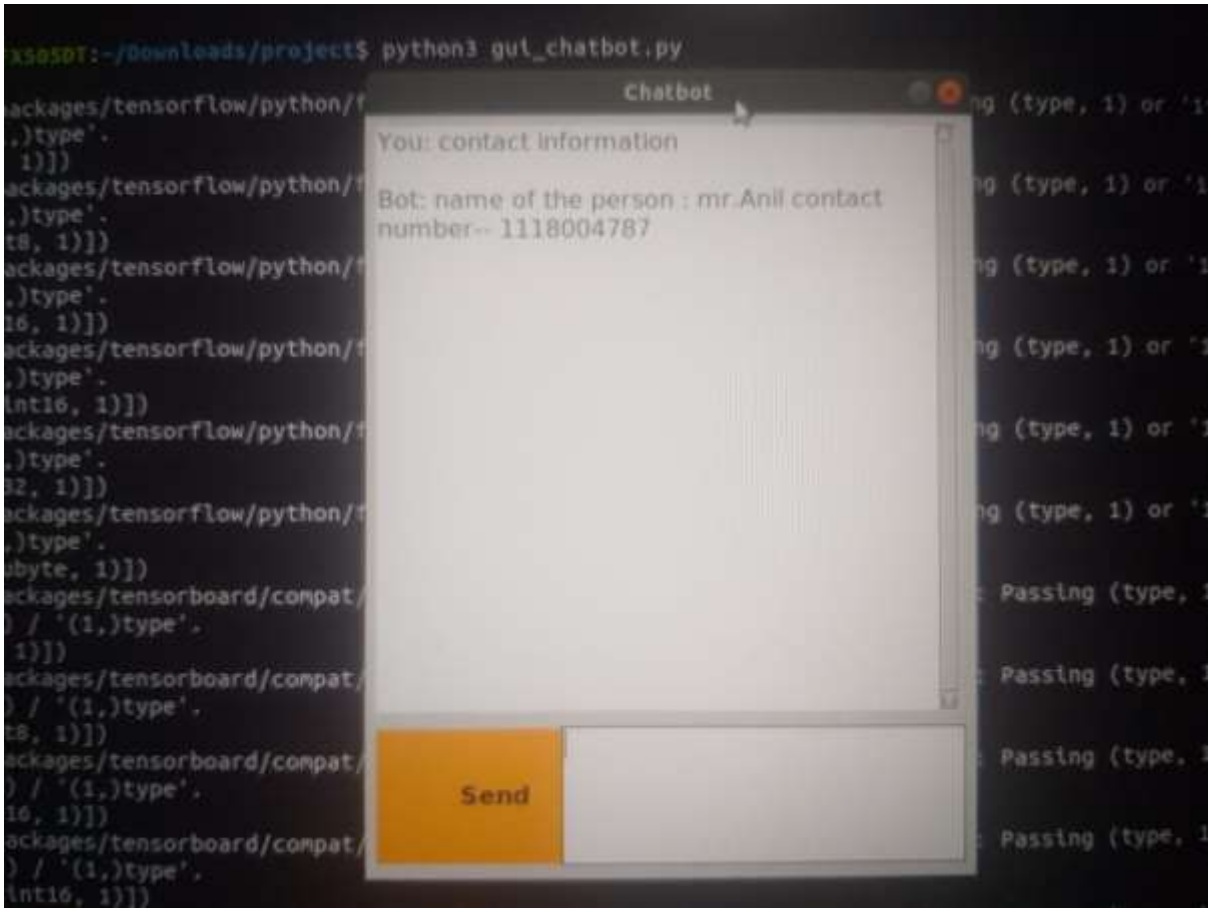
2)questions for chatbot(intents.json)

7. Implementation of scheduled work of Project

Chatbot will answer questions according to the needs of users and best of its knowledge.




Chatbot
You: hey there
Bot: Hello, thanks for asking
You: what can you do?
Bot: I can guide you to make your first order,
TO track your order, about how to make cha
nges your orders
Send


python3 gui_chatbot.py
Chatbot
You: contact information
Bot: name of the person : mr.Anil contact
number-- 1118004787
Send

8. Technologies and Framework to be used

We have used pycharm for coding of the chatbot.

9. SWOT Analysis achieved in project.

Strengths of projects:

The biggest strength of chatbot project include being able to reach a broad audience on messenger apps, as well as the ability to automate personalized messages. It also can improve efficiency by taking over tasks for which humans are not essential.

Chatbot here is made and trained to answer all the questions that are requested and related to the website or work for it was designed.

Weakness of projects:

The chatbot may not respond in case of complex problems.

Opportunities for the project:

You can integrate AI chatbots in logistics with other technologies to streamline your workflow and leverage operations. Some of the technologies you can integrate transportation chatbot with are-

1)IOT(Internet of Things)

2)Voice recognition

3)Big Data

Threats:

When **chatbots** could become a real security **threat** As the conversation programs become better at imitating real people, they could morph into a serious **threat** to companies.