Capstone Project Weekly Progress Report

|  |  |
| --- | --- |
| Semester | Fall 2021 |
| Course Code | AML 3406 |
| Section | Section 2 |
| Project Title | Restaurant Recommending Chatbot |
| Group Name | Group 3 |
| Student names/Student IDs | Vignesh Kumar Murugananthan C0793760 |
| Reporting Week | Week 7– 10/23/2021 |
| Faculty Supervisor | Vahid Hadavi |

# **Tasks Outlined in Previous Weekly Progress Report**

* Analyzed Business data and Review data
* Explored the data to find various insights in them by exploratory data analysis
* Grouped data based on the restaurant category and visualized them in order to understand how the data is represented.

# **Progress Made in Reporting Week**

* Firstly, we have split the train and test data sets with a composition of 80 and 20 percent respectively.
* Then we have analyzed few algorithms with our train data.
* The algorithms we used in our model building are:

Logistic regression, Decision tree classifier, KNN, Random Forest, and Gradient boost.

Text

Description automatically generated

* After modeling we have made the confusion matrix, which is one of the important metrics in classification algorithms.

Text

Description automatically generated

* With all the above given algorithms, we also used randomized search CV with Logistic regression to get the best parameters. With those parameters we have achieved accurate scores.

Text

Description automatically generated

Graphical user interface, application, Teams

Description automatically generated

Table

Description automatically generated

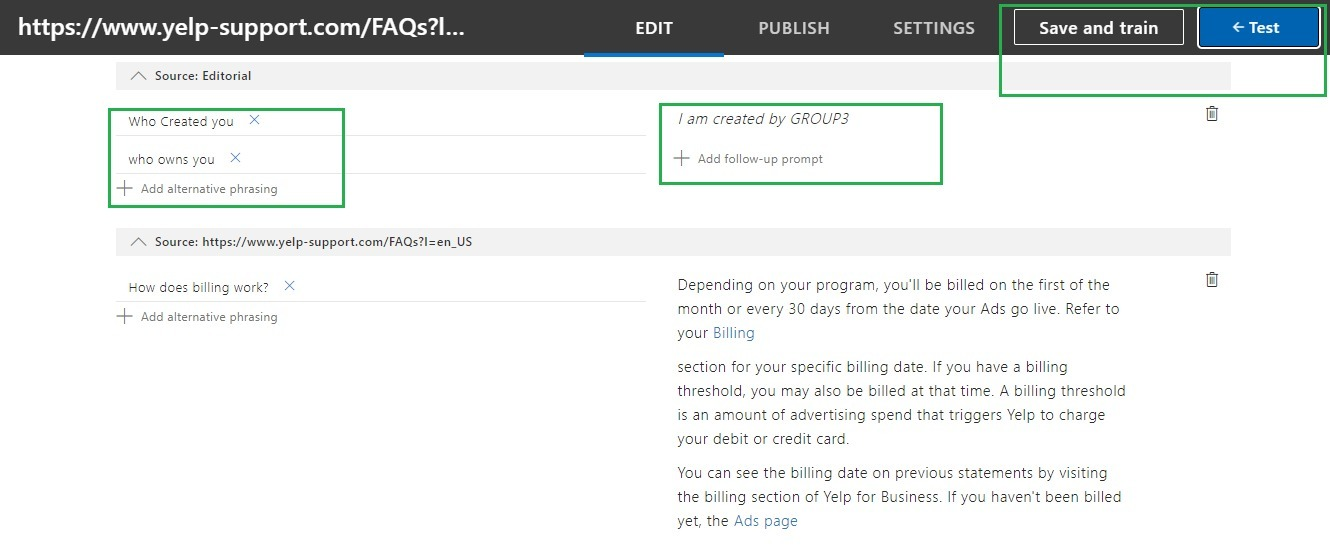
Text

Description automatically generated

A picture containing text

Description automatically generated

* We have developed a chatbot using micro soft azure cognitive bot service.



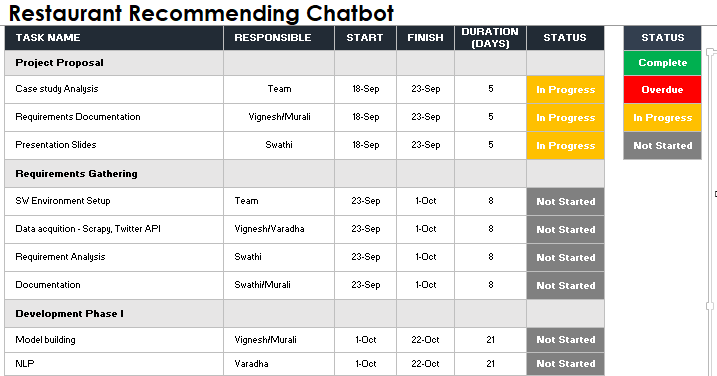
# **Difficulties Encountered in Reporting Week**

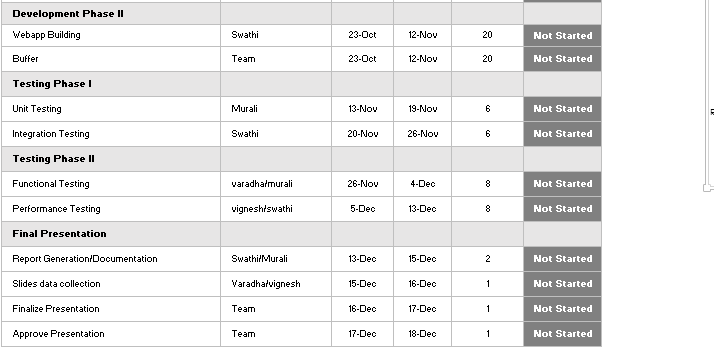
* We faced issues with SQL server database and also with Azure server which we are currently analyzing to fix it.
* We faced issues with data and the modelling takes more time for executing.

# **Tasks to Be Completed in Next Week**

* The evaluation includes sentiment analysis like finding stop words, stemming (porter stemmer), Word tokenizing, and Visualization
* Cosine similarity
* Chatbot building

Overall Project Plan:





Individual Project plan:

Case study analysis

S/W environment setup

Development phase 1 – NLP

Development Phase 2 – Webapp Building

Testing Phase 2 – UNIT and Integration testing

HIGLIGHTED BELOW ARE MY RESPONSIBILITIES

