Republic of the Philippines
Laguna State Polytechnic University
Province of Laguna

Weekly Progress Report			
Topic:	**Chatbot – Final Project**	**Week No.**	**13**
Course Code:	**CSST101, CSST102**	**Term:**	1st Semester
Course Title:	**Advance Representation and Reasoning** **Basic Machine Learning**	**Academic Year:**	2024-2025

Main Tasks Assigned:

Fine-tune model hyperparameters (e.g., learning rate, batch size)
Conduct initial testing on the validation dataset
Record training results and identify potential issues

Work Completed:
Hyperparameters use includes a learning rate of 1e-6 as an initial learning rate and a batch size of 4 so that Google Colab can handle it easily. We have also conducted initial testing with 5000 recipes with two epochs to see if the model works.

Challenges Encountered:
The testing includes training results of Average Loss: 168135.00317817915; the training indicates how bad the model is with high MSE, and it can lead to an error within the conversation of the chatbot; different issues can be identified with this high MSE. High Mean Squared Error (MSE) indicates that the accuracy of the output of our chatbot could be higher. Since the epoch we used is still low, underfitting occurred because the model did not have enough iterations to refine its parameters. High MSE can lead to various issues, such as generating irrelevant or incorrect responses due to poor understanding or misinterpretation of input data.

Solutions Implemented:
To address the issue of underfitting we experienced with our chatbot model, one effective solution is to increase the number of training epochs. Since we initially trained the model for only two epochs, it didn't have enough time to learn from the training data, which likely contributed to its poor performance. By extending the training duration and allowing the

model to go through more epochs, we can give it more opportunities to adjust its parameters based on the data it encounters.

Tasks for Next Week:
Our task for next week includes optimizing the model, improve data augmentation, continue model training, and monitor validation performance.

Instructor's Feedback:

Instructor's Signature: _____
Date: _____