Weekly Progress Report

Group Members:

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Work Completed:

This week, we successfully completed all the tasks related to the final stages of our project. We performed the final tests on our trained chatbot model using the designated test dataset, ensuring a robust evaluation of its performance. From these tests, we meticulously compiled the final results, which include key performance metrics such as accuracy, precision, recall, F1 score, BLEU score, perplexity, and token-level accuracy. As shown in `Evaluation.ipynb` and the project report, our model achieved a high accuracy of 0.9998, precision of 0.8333, recall of 1.0000, F1 score of 0.9091, and an average BLEU score of 0.0990, alongside strong results in other metrics. In parallel with the testing, we finalized our project report, `CodePath: A Personalized Learning Pathways and Course Recommendations Chatbot`, which details our methodology, model implementation, training process, evaluation results, challenges, and conclusions. This document provides a comprehensive overview of our work, from dataset creation and preprocessing in `Text_Preprocessing.ipynb` to model training in `Chatbot Training and Function.ipynb`.

Challenges Encountered:

During this final phase of the project, we are pleased to report that we did not encounter any major challenges. The testing and evaluation process went smoothly, and we were able to efficiently compile all necessary results and metrics. Similarly, the finalization of the project report proceeded without significant issues, thanks to the well-organized documentation and collaborative efforts of our team.

Solutions Implemented:

Since no major challenges were faced, there were no specific solutions that needed to be implemented. Our existing workflow, tools, and methodologies proved sufficient for completing the remaining tasks efficiently and effectively. The preparation and steps taken in previous weeks, such as the consistent clearing of GPU memory as demonstrated in `Chatbot Training and Function.ipynb`, ensured a seamless final testing phase.

Tasks for Next Week:

As we have now completed all major tasks and are entering the semester break, we have no specific tasks scheduled for the next week. All project deliverables, includ-

ing the fully trained model, evaluation results, and the final project report, have been finalized. We are prepared to enjoy a well-deserved break.

Instructor's Feedback:

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Instructor's Signature: _____

Date: December 12, 2024