

Title: Reflective Journal – Final Project**Author: Erick Banegas**

During this project, I experienced a complete workflow of building, debugging, and deploying an advanced NLP system. The most challenging part was managing large transformer models inside a restricted environment like Google Colab. Memory limitations, model size, and environment crashes forced me to learn effective cleanup strategies and efficient installation pipelines.

I also spent time understanding how multilingual NLP pipelines function. Integrating translation before summarization and classification helped me create a more robust system. I learned to select appropriate models based on performance, compatibility, and multilingual needs.

Deploying the system through Streamlit and Ngrok taught me how to bring an NLP model from a development environment to an accessible web interface. Debugging issues such as incorrect module imports, directory conflicts, and environment paths improved my ability to diagnose real-world deployment problems.

Overall, this project strengthened my skills in:

- Transformer-based NLP
- Modular code design
- Multilingual processing
- Web deployment
- Debugging complex environments

It also helped me understand how to present a complete AI system professionally, both in documentation and through a live demo.