In this project, an application was created using Space and Streamlit to leverage a trained machine learning model. The application provides an interactive user interface where users can input their product, gender, profession, or hobby, and receive an email generated by the model.

The application workflow is as follows:

Start the Application: Upon starting the application, an input container and a “clear” button are displayed.

User Input: Users input their product, gender, profession, or hobby in the input container and click the “submit” button.

Processing: The application takes a few minutes to process the input.

Output: An output container is displayed on the right, showing both the user input and the email generated by the model.

Clear Output: Users can click the “clear” button to clear the output container and retry the process.

Several valuable lessons were learned during this project:

Interactive User Interface: The use of Streamlit to create an interactive user interface for the model allowed users to interact with the model in real-time. This provided a user-friendly way to input data and view the results.

Model Training and Application: Experience was gained in training a machine learning model and applying it in a real-world application. This is a valuable skill in the field of data science and machine learning.

Iterative Development: The ability to clear the output and retry suggests an iterative approach to development, allowing for continuous improvement and adjustment based on user feedback or new data.

Despite the successes of the project, there were also some limitations:

Processing Time: The model takes over three minutes to run in the application. This could potentially lead to a less than optimal user experience, especially if users are expecting quick results.

Data Formatting: Ensuring the output is well-formatted and easy to understand is crucial for the end-user experience. The generated email does not have a perfect format, indicating that there might be room for improvement in the data preprocessing or postprocessing stages.

Overall, this project was a valuable learning experience in creating an interactive application to leverage a machine learning model. Despite some limitations, the project demonstrated the potential of using such models in real-world applications. Future work will focus on improving the processing time and data formatting to enhance the user experience.