**Project 3: Customer Feedback Analysis and Insights Generation**

**Project Definition:** This project focuses on analyzing text-based customer feedback collected from surveys and generating valuable insights. The goal is to identify the overall theme and primary concern of each customer feedback using LLM and then cluster similar themes together, and provide meaningful name for each cluster in themes and In the same manner cluster the similar concerns together and provide meaningful name for each cluster in concerns.  
  
The input to the project is an excel containing the feedbacks from customer and the outcome will include a dataset with five columns: the original feedback, overall theme, primary concern, clustered theme, and clustered concern. By leveraging advanced natural language processing techniques, the project will efficiently extract themes and concerns from the text data and cluster them to uncover patterns and trends in customer feedback. This information can be used to inform decision-making processes and ultimately improve customer satisfaction.

**Sample Input :**

Excel the contains the customers feedback

**Sample Output :**

Excel file containing data such as:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Feedback** | **Overall Theme** | **Clustered Theme** | **Primary Concern** | **Clustered Concern.** |
| Online help I might say is nonexistent. I don,t know if they know the insurance business or not because I cannot understand foreign languages. | Inadequate online support | Website/Portal | Language barrier | Language & Communication Issues |
| Very hard to get connection by phone and the portal is not clear for seniors. | Accessibility and Clarity | Website/Portal | Communication Difficulty | Language & Communication Issues |
| You‚Äö√Ñ√¥re online sites need to be updated and more together from it respond time to your claims how to speak to people that have clear English or the language that we speak | Website and communication | Website/Portal | Language barrier | Language & Communication Issues |
| Hard to navigate web. Hard to get a hold of a customer service rep. They keep having to transfer your call. | Poor website navigation | Website/Portal | Inaccessible customer service | Language & Communication Issues |

**Instructions:**

1. Use python programming and open source libraries for solution development
2. Use NLP Topic Modelling/Clustering algorithms for cluster the themes and concerns
3. Store the output in Excel