**Project Proposal**

Project goal:

The project aims at collecting complaints and solutions from various hostels in terms of subjective answers. Then, the various insights and useful solutions will be extracted to various responses clubbed together corresponding to a given problem using various NLP techniques.

Project Solution:

1. The responses for complaints and solutions will be collected as a survey from hostels and will be added to a database which has separate complaints and solutions verticals.
2. The various NLP techniques like tokenization and semantics will be used to form various clusters from the registered as well as for their corresponding solutions. The solutions will also be analyzed by using NLP and then categorized to the corresponding complaints by extracting important keywords from the solutions so as to gather insights easily by the Secretaries who will be reading these.
3. These broad headings will help to analyze the data efficiently . Then these can be put into a dashboard and can be shown to the corresponding secretary using a portal , where number of complaints and various domains of the complaints can be shown, along with the number of solutions and the number of complaints actually solved.

Timeline of the project:

| Week 1 | Collecting the various responses from multiple hostels and then forming a database of complaints and solutions . |
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| Week 2 | 1.The responses collected will be applied tokenization where only words will be left in the data.  2. Then the data collected will be passed to embeddings like glove vector embeddings.  3. A model will be created that will try to group similar complaints together based on clustering. |
| Week 3 | 1.The main clusters created will be analysed based on number of complaints and this will be formed into a dashboard that the secretaries and students will be able to view on a website. |
| Week 4 | 1.The design of the website and various intricacies required for connecting the data to the webpage in a dynamic manner can be added.  2. The website itself can have a complaint and solution portal which can be added and the details can be updated dynamically after getting a response. |