

1.125 Project Proposal  
Erdem Yilmaz  
Charles Lambert  
Team Name: E-C Feedback

### **Summary**

We are proposing an artificial intelligence based feedback system for family owned restaurants. Our system will allow customers to give feedback by talking in an unlimited fashion. We will analyze the speech using speech to text conversion techniques. Then we will apply natural language processing by NLP techniques and summarize our finding to restaurant owners.

### **Proposed Deliverables**

Our project has the following major parts:

1. User interface for the restaurant customer to provide feedback. We will utilize web application techniques learned in the class to design a web page for customers
2. User interface for the restaurant owner. We will use **javascript** based **visualization** techniques discussed in the class in our interface.
3. Speech to text conversion engine. We will report available speech to text API's and pick one to build our project on. Potential technologies are IBM Watson, Google Cloud Platform, Spoken Data etc.
4. Machine learning NLP engine. We will report available NLP engines and pick one to build our project on. Potential technologies include the ones mentioned above and Mountain Fog.
5. Architecture definition. Form and function to obtain the desired results. Note that the MVP might not reflect the final form. However, the defined architecture will drive design decisions.
6. Optional: Attachment of a document oriented database, potentially MongoDB, for (a) speech data and (b) analytics reports. We expect the top 4 deliverables and weekly listed items in the homework to take around 60-70 hours to complete for the team (combined) If we can complete ahead of time, we'll implement databases as well.

### **Reflections on Active Learning**

We will be building a real life application and demonstrate in class to real restaurant customers (students). We will be spending majority of our time understanding available solutions and making decisions regarding directions for the project, therefore a significant portion of the decisions will be in the nature of architectural decisions and will be in-line with the learning goals of 1.125