Vision Statement

**Project Title/Name:** Intelligent Offer Categorizer  
**Team Name:** Odyssey

**Team Member Names/Emails:**
- Xiao Sun (xiaosun@ucsb.edu)  
- Danny Millstein (millsteindanny@gmail.com)  
- Winfred Huang (whuang@ucsb.edu)  
- Haochen Shi (shi@ucsb.edu)  
- Delin Sun (delinsun@ucsb.edu)

**Team Lead:** Xiao Sun  
**Team Scribe:** Danny Millstein

**What is the project about?**  
Creating an Intelligent Offer Categorizer to automatically categorize existing and new offers.

**What problem the project is solving?** (Core Technical Advancements, Innovation, Science)
- CJ has some tools to match categorized offers to matching providers, but there are no existing tools that can automatically categorize offers.  
- There are some uncategorized folders. Designers should prototype something that user could use to make the data have insights from different offers.

**Why is the problem important?**
- Large customer base so automation is important. It is not realistic to categorize manually for everything.  
- It involves large potential data that need to be categorized for advertisers and publishers to see the promotion.

**How the problem is solved today (if is)?**
Today the categorizing process is done manually just for big customers.

**Identify outcome of project:**  
An app that utilizes an intelligent offer categorizer: Automatically classify offers as they are being created in CJ system, and correctly identify the category that it belongs in.
Define initial project milestones:
- Specification: figure out the categories we will be using
- Design: App or API
- Prototyping: Train models using old offer data

How do you plan to articulate and design a solution?
- List the implementation platform
  - Prototype app could be on either Apple iOS, Android P, or both
  - Possible website implementation
- List the technologies will plan to use to develop the solution
  - Proprietary CJ code
  - AWS server

Overview of the process model (milestones)
(Seems like a two part process of making an intelligent offer categorizer, then designing an app that utilizes this intelligent offer categorizer)

Week of October 15th: Set up all tools (install machine learning tools, setting up AWS account, set up necessary tools for web implementation, get data dump from CJ)
Week of October 22nd: work on training the model of the categorizer (10% accuracy)
Week of October 29th: work on training the model of the categorizer (25% accuracy)
Week of November 5th: work on training the model of the categorizer (40% accuracy)
Week of November 12th: work on training the model of the categorizer (60% accuracy)
Week of November 19th: work on training the model of the categorizer (80% accuracy)
Week of November 26th: work on training the model of the categorizer (90% accuracy)
Week of December 3rd: get initial app framework ready part 1
Week of December 10th (finals week): get initial app framework ready part 2

Next Quarter Plans:
- Get initial app framework ready (if not done yet)
- Design the app
- Deploy the categorizer onto the app
- Optimize and test the app to ensure it works properly
- Explore other possibilities on autofilling other parts from the offers