Vision Statement
Prograham Crackers
uEnergy

uEnergy will be a web application that allows for quick and easy access to a household's energy profile. This profile may include daily, weekly, monthly, or yearly analysis on how much energy is used by a specific house, while giving useful statistics of comparisons to other houses of similar size and/or location.

Description
Users will have a simple and intuitive experience accessing information about their energy profile. Through Greenbutton, an interface that allows for data parsing, we can access peoples energy profile and display it in a way that isn't cumbersome or tedious, making a more friendly user friendly interface. Current systems, provided by the energy companies, require field fill outs for comparisons. With uEnergy, minimal effort would be required by the client and little interaction will be necessary. uEnergy will make it simple for users to better understand their energy consumption by using their home's data in comparison to others around them. As a result of careful analysis of that data, the user will be able to see how they compare to neighborhood and global standards. Analysis of their energy percentiles and useful tips will be available to them as well in the click of a button.

Product to be built
1) Consumer Frontend (Iphone application and/or web application)
2) Backend (data analysis, managemen

Frontend:
Our intention is foremost to develop a web application that is simple and easy to use. Keeping in mind the importance of simplicity, the design of our application will be straightforward and to the point, rather than cumbersome or tedious. There will be two levels of users.

The first level of user will have access to the most basic form of our application on all platforms (web and mobile). Filled with useful percentages and information, the users will be able to tell at a glance how energy efficient their home is. Users will be drawn in with an ease of setup that allows them to immediately be presented with the sort of utility that the analyzer can provide, while still providing a level of information that is useful enough for most users to stay at this free-to-use level. In addition to being easy to use, most of the processing of information will be done by the backend server, making for an application that isn't very taxing on the client devices. With a lack of intimidating pay barrier of entry for useful information, users will be more likely to use the application and share with friends and family -- ultimately building a larger potential audience for those who might be interested in paying to gain the benefits of the second level of user.

The second level of user will have access to this information in addition to having the advantage of more in-depth analysis of energy consumption and how they may change their patterns in order to save energy and money. While it is free to be the first level of user, a small fee will be required to gain the benefits of becoming a second level user, providing a stream of revenue that pays for the operating costs of the data analyzer (backend). Because most second-level users will have already been first-level users, setup will be quick and easy since nearly all of the required permissions and information would already have been gathered from the user.

Our iOS/Andriod application will be developed with the same design in mind and will be connected to the user's web account. Data will be displayed in a way that takes advantage of the mobile device's interface while maintaining the same information as the web application. The added accessibility of having the power information be accessible by a mobile device will further increase the number of people exposed to the option of becoming a second level user in order to get more detailed statistics about their power usage. The application will not require intense processing power on the part of the phone because most of the information will be processed by the backend.

Backend:
The backend of this application will involve data analysis and management from the user's home and the neighborhood around them. Our first goal is to analyze the greater Santa Barbara area in order to have a basis for comparison. A user will be able to see data from their own home in comparison to others in their neighborhood, city, or county, etc. In order to reach this comparison, our backend must analyze the data coming in from GreenButton in a way that is advantageous to the user. Our backend will focus on collecting data and calculating energy consumption and efficiency. In order to obtain GreenButton information about houses, users must opt in and explicitly allow uEnergy to gain access to their information via their power company's website.