One of the implementations of our product will be through a Google Chrome extension. The Google Chrome extension will be installed like any other Chrome extension - through the Chrome web store. Once installed, our extension will show up as an icon on the Google Chrome taskbar. Clicking this icon while viewing an Amazon page about a product will cause a window to pop up, displaying a summary of the reviews for that product. Clicking the icon while viewing any other page, including the Amazon homepage, will simply print the message, “No Amazon product detected”.

The summary of reviews displayed through our Google Chrome extension will show the percentages of positive, neutral, and negative reviews based on our sentiment analysis. A breakdown of positive, neutral, and negative reviews over time will also be displayed to show the user how sentiment towards the product has changed over time. Also included will be a new star rating which will be calculated based on our sentiment analysis. Finally, pictures which have been posted by other reviewers will be displayed in order to help the consumer get a better idea of what the product looks like in real life.

At this time we have constructed the basic skeleton of a Google Chrome extension with a couple of functions working. Our extension is so far able to retrieve the URL and a picture of the webpage the user is currently viewing, which we will later be able to send to our Amazon API to retrieve reviews of products. Our Google Chrome extension also has a popup window that prints the retrieved URL and picture.

The sentiment analysis portion of our Google Chrome extension project, which uses the same Python code from our website-oriented project discussed previously, is mostly complete. It is able to learn from a training set of data and return positive/neutral/negative scores when new sentences are inputted. These scores can then easily be translated to a new star rating and displayed to the user.

A major hurdle which we are currently working on is figuring out how to run Python code from the Google Chrome extension and use it to send data back. Since we are using Python for its natural language processing abilities in our sentiment analysis, it is vital we come up with a solution to this problem quickly. So far we have found one potential solution to this problem online, which we are still testing. The other challenge we are facing is the retrieval and display of pictures from other user reviews. The API we are currently using doesn’t have any obvious way of doing this, so we might need to find some other API to accomplish this task or find some other kind of workaround.

Overall this part of the project has good headway because we are using a lot of the same code from our first implementation of our software project and have a basic skeleton of a Chrome extension with a few working functions. Still, there remains the major technical hurdle of figuring out how to run Python code through a Google Chrome Extension (which is traditionally written in Javascript), as well as how to retrieve pictures through the API.