Solution 3- Web application development using Python.

As per the statistics at statista.com, amazon has 304 million worldwide customers and out of those 183 million users visit Amazon's websites per month as of July 2016. These statistics show that a lot of people shop online using the amazon website contrary to the belief that people prefer app over website. These statistics clearly show that if a sentiment analyzer for amazon, is made it must be available as a web application. All the users need to do is copy the url of the products they want to analyze the sentiment of and paste it in the text field provided at the web page and analyze the sentiments. There is also an option for the user to upload a file of reviews and analyze the sentiments.

The application is built using Flask, Python 3.6, HTML and CSS. It is a web page that consists of a text field to take input from user as a single review, analyze the result and print its output. There is also an option to upload a text file containing multiple reviews, the sentiment analyzer then analyses all the reviews in the file and labels them as positive or negative and then return a file that can be downloaded by the user which contains all the reviews analyzed and labelled as positive or negative. We have also looked at the prospective of providing and option to the users to enter the url of the product and all the reviews for that product will be analyzed and presented to the user. We faced some problem with doing this since we could not find a tool or way to integrate in our program which can dynamically extract the reviews present at the website, given just the url. But we tried amazon\_scraper 0.3.3 which is a hybrid web scraper/ API client for python which is great at extracting the reviews of product dynamically and returns an array of reviews. We are currently testing this as the output needs to be refined in a standard format to be provided to the classifier. Once done we will just integrate it with the web page code and the implementation for the web application will be ready for integration testing.

References-

1. https://www.statista.com/topics/846/amazon/