HackerEarth Programming assignment for ML Engineer Role

Ground Rules
1. Please use Python only for coding
2. You may use some standard libraries, but your solution will not be acceptable if you use readily available libraries or third party tools to solve the core of the problem.
3. Avoid using databases, you can use files to persist something.
4. Have fun!

Problem Statement

1. Scrape the product reviews for iPhoneX from amazon using this link :
   https://www.amazon.in/Apple-iPhone-Silver-64GB-Storage/dp/B0711T2L8K/ref=sr_1_1?s=electronics&ie=UTF8&qid=1548335262&sr=1-1&keywords=iphone+X
2. Store it in a structured manner in a file persisting fields like :
   a. Reviewer's Name
   b. Date of review
   c. Colour
   d. Size
   e. Verified Purchase (True or False)
   f. Rating
   g. Review Title
   h. Review Description
3. Do a sentiment analysis on the Reviews Description and store it in a file. The sentiment should range from -1 to 1 (negative to positive).
4. Build a REST API over the all the JSON objects (from previous step), and expose a HTTP URL that can be used for querying. (Hold the JSON objects in memory.)
5. The API should be able to 'GET' products based on one or more of the following attribute Filters :
   a. Date Range
   b. Colour
   c. Size
   d. Verified Purchase
   e. Rating
   f. Sentiment
6. The API should support any combination of the above filters, and return results in JSON format.
7. Create a README file describing exactly how to run your scripts. Also, provide details as to how your API can be used for querying. Describe all the major design decisions that you make.