Secondly, please answer the following questions pertaining to the solution you build

above. These can be short-answers, where we’d love to hear how you think and your

approach to making decisions. You may also provide visuals to supplement your

answers. Please submit the answers to the questions via your Github repo from above in

a file named shortAnswers.md

a. If you needed to retrieve your .csv data from a multitude of 3rd party services (ie:

Google sheets), how would you structure your code in such a way that you could

add on additional inputs in the future?

b. Are there any additional details that you could have used in order to make more

effective design decisions? List any questions or clarifications you would have

requested before beginning this project.

c. If you were to pass this problem off to a junior developer, how would you

approach structuring a project plan for them?

i. If 1 story point is a single work day, how many story points would you

estimate it would take for the junior developer on this project?

d. Are there any feature extensions that you would like to implement that are

outside of the base requirements? If so, list them here along with the

requirements.

1. If you needed to retrieve your .csv data from a multitude of 3rd party services (ie:

Google sheets), how would you structure your code in such a way that you could

add on additional inputs in the future?

Ans: We would require to make REST calls to the Google Sheets developer end-point by using necessary API\_TOKEN that are generated by Google’s authenticator service.

One making calls, we can paged the response in a chunk of 10 for avoiding any memory issue. The response from Google sheets can then be saved temporarily and perform the operation of taking a screenshot.

2. Are there any additional details that you could have used in order to make more

effective design decisions? List any questions or clarifications you would have

requested before beginning this project.

Ans: While working on this project, I do feel there are discrepancies in the requirements as to how big the size of the csv file can be, since that can cause the out of memory issue.

There were similar product\_ids which needed clarification on how two products can have the same product\_id.

Another clarification is why the requirement is “today’s date” instead it can be something “Date”

Is Customer is fine with having a collage of images, this will help to save a lot of memory as these are images.

It would be better if we provided some UI interaction portal for the customer to see his images, is this part of scope or future enhancement.

3. If you were to pass this problem off to a junior developer, how would you

approach structuring a project plan for them?

Ans: I think the most crucial part of this project is memory management and how we can optimize the solution so that it doesn’t crash the application.

I believe the below steps should help developer to develop an efficient applications,

1. Figure out the node module available for screen-shot, evaluate them based on ratings
2. Try creating a prototype with small set of data with 10 images
3. If there any issues, address them by making sure writing code with try catch block and well informed error messages
4. Next, should increase the data size by 10-fold and see how the application works, if issues occurs, I’ll help them address
5. Make sure add test cases
6. Is there any opportunity to cache any values, we should try that
7. Perform load tests by 100-fold of data and check the performance of the application.

4. If 1 story point is a single work day, how many story points would you

estimate it would take for the junior developer on this project?

Ans: This project definitely requires regress testing, so I would like 12 days where

1st day - Research, Evaluation

2nd -5th day - Coding, writing test cases, fix bugs

6th - 7th - First round of load test, address issues discovered

8th - 9th - Second round of load test, address issues discovered (Dev, Test)

10th - 11th - Final round of load test, address issues discovered

12th - Deployment and Release (Prod)

5. Are there any feature extensions that you would like to implement that are

outside of the base requirements? If so, list them here along with the

requirements.

Ans:

a. A web portal for the customer.

b . Ability to create collage, instead of single image

c. Clean-up for stale images

d. Caching