

# Take Home Assignment

## Interview Round 2

1. The state government has decided to improve their public library services by going digital. They have received few inputs from the public on the features that may be essential like checking the availability of the books, renewing membership etc. However, they have called in for RFP from software companies who would like to build the website for them.

You as a part of a technical team have been given the opportunity to voice your opinion on the technical aspects of the project. One of your features might be a winning criteria one amongst the others, you never know!

- What features do you think that the website should contain?
  - What technologies would you like to use(Front end, backend and database)? And Why? (Assume that your team is an Agile team and the team has the relevant skill set and experience required)
  - If you are familiar with Cloud platforms(AWS or GCP) what resources would you be using and what would be the configuration and cost of these resources?
2. Write a program that makes an API Request to fetch the [Hacker news's public dataset from Big query](#) (hacker\_news > full\_201510) to fetch the first 25,000 records. After fetching the records, parse the file to output the information (as shown in the sample below) in json format for unique records.

```
{
  {
    "by": "Qz",
    "firstcommenton": "1273208103",
    "lastcommenton": "1287894251",
    "totalcommentcount": "6",
    "lastcommenttext": "Reasonable goals for the passengers don't necessarily coincide with the goals of those running the airports. I think it's reasonable for me not to be treated like a potential terrorist every time I fly, but I can understand why the airports feel they have to do that.",
    "firstcommenttext": "People, please keep in mind that HN is obviously not the target audience for this product. You can put the scathing criticism on the shelf and try to be constructive as to how it might look to the people who this <i>does</i> appeal to (and they do exist). There's no need to get elitist about how great code is.",
```

```

    },
    {
      "by": "Mz",
      "firstcommenton": "1265848010",
      "lastcommenton": "1287894251",
      "totalcommentcount": "6",
      "lastcommenttext": "I don't have a position on what other
people should or should not be doing in this regard. I have been too
busy trying to not die to really be bothered to think too much about
such things. And I am not thrilled with being told that this forum,
where we are supposedly interested in engaging in serious intellectual
discussion, is a place where I had damn well better tow the party line
and not differentiate from it in the slightest or suffer the
consequences. That is a policy of dictators, not scientists and
intellectual elite.<p>I will continue to speak my mind as I see fit and
accept the downvotes, if necessary, thank you.",
      "firstcommenttext": "I didn't really learn to live until I spent
a year at death's door. Since there is no cure for my disorder, even
getting well doesn't remove the "death sentence" I am living under. I
find it is a gift and very freeing.",
    },
    {
      .
      .
    },
    .
    .
  }
}

```

Note: You can write the program in any language that you are comfortable with. You need to output the contents to the json file and send it along with your program.

You should have created an account on [Google cloud](#) to access the BigQuery Dataset. Otherwise, you can use the sample records present in the folder.

### Bonus points:-

For the program written in Question 2,

- If your program is making an API call to the BigQuery and not using the sample records (give it a try)
- Convert the epoch timestamps to **yyyy-mm-dd hh:mm:ss** format.
- Add a new attribute converted timestamp showing the same date time in AEST
- Un-escape the unicode characters and replace it with the UTF-8 equivalent. (eg: &#x27;)
- Remove the HTML tags (eg: <p> )

3. Can you come up with a simple mock UI or wireframes for the following scenario:
- A passionate gardener has gained a lot of recognition in the locality recently because of an article in the newspaper on terrace gardening where he grows organic vegetables and fruits to meet his daily needs. Many readers who shared similar interest has approached him for advice/consultation on employing the same in their houses.
- His friend runs a small nursery nearby and also knows the art of pottery. They both see this as an opportunity to grow big where the gardener can offer his services on helping set up the right environment through site visits, share his knowledge through blog posts on the website while the nursery owner can sell seeds, nursery plants, pots and other gardening tools.

Can you come up with a mock design that can help both of them start and grow in their business venture.

**Note:** No need to use any software or mock UI tools here. You can draw it on a sheet of paper, capture it and send it or use word shapes/icons or ms paint. Score for creative thinking here and not presentation!!

4. What was the latest technology/innovation/buzzword that caught your interest recently that made you to curious to know more about it? What did you learn?
5. What is the most impressive line of advice that you have received from your colleagues/peers in your career? (You may choose to not answer it if it's personal)