SDE Interview

Data Analysis Task (*v3*)

Languages/Libraries/Tools to be used:

1. TypeScript or JavaScript
2. React via CRA
3. Yarn

Task description:

1. You are expected to perform some analytics over the Indian Agriculture dataset (*made available by National Data and Analytics Platform, NITI Aayog*) and then display them as tables. You can treat all missing cell values as 0.
2. In the final product, upon running *yarn start*, the browser should open with the desired page rendered.
3. No other helper libraries like Bootstrap, jQuery, Lodash, etc. should be used.
4. Remove all the unused code (JS, CSS, Test Files, etc) and libraries from the CRA template to reduce clutter.
5. Yarn must be used in place of NPM.
6. The tables must be implemented using Mantine v7.

7. Please perform the following based on the dataset shared with you:

    a. Create a table by aggregating the crops data as follows:

Year	Crop with Maximum Production in that Year	Crop with Minimum Production in that Year
1950	ABC	ABC
1951	XYZ	XYZ
1952	A1B	A1B
…	…	…
2020	…	…

    b. Create another table by aggregating the crops data as follows:

Crop	Average Yield of the Crop between 1950-2020	Average Cultivation Area of the Crop between 1950-2020
ABC	###	###
A1B	###	###
…	…	…
…	…	…
XYZ	###	###

8. No further analysis or any sort of textual summary of data/results is needed.

9. The average values should be rounded off to 3 decimal places.

Evaluation criteria:

1. Calculated values are correct, and the functions are time efficient. Weight: 60%
2. Clean code, modularity, folder structure, quality of comments (to explain code wherever needed). Weight: 35%
3. README should include the full screenshot of both the tables. Weight: 5%
4. Bonus for using TypeScript. Weight: 15%

How to submit?

Please submit a GitHub link to your project with clear instructions on how to build/run/start the project in the README.md. You can email that link to careers@manufacanalytics.com.

The submission deadline is 2 days starting from the day you receive the assignment. Say, if you receive your assignment on 1st April 2024, please submit the assignment solution by 3rd April 2024 at midnight.