**Offline Assignment**

Create some mock fake data with 100 colleges and 100 students in each college. For example : College1, College2, Student1, Student2..etc

**Sample Schema for reference**

Sample schema (Feel free to modify/add more fields):-

• College

• Id

• Name

• Year founded

• Location (country, state, city)

• Rating

• Courses (Computer science, Electronics, IT..etc)

….Feel free to modify/add more relevant fields.

• Student

• Id

• Name

• Year of batch

• Skills (C++, Java, C,...etc)

….Feel free to modify/add more relevant fields.

**Example App Functionality (including but not limited to) :-**

• Web service (Node.js)

• Get College details by College name/id

• Write MongoDB queries to get similar colleges for a given college:

• You could use based on location, no of students and courses offered. You could pull similar colleges.

• Example :- A college offers Computer science in Karnataka. The similar colleges for this would be other colleges in the same locality and offer

similar courses and also with +/- 100 students range. Make sure you have mock data accordingly.

• Usage of operators in MongoDB queries to get stats like total colleges in a location etc.. is a plus.

• **Responsive Web UI (React) - Web and Mobile App (React-Native)** • Show list of colleges

• Show dashboards / Charts by State.

• For ex :- 30% of colleges in AP, 20% of colleges in UP..etc

• Show dashboards / Charts by Courses

• For ex:- 40% of colleges offers Computer Science, 20% offers

IT..etc

• Should be able to drill down a particular sector and see the list.

• For ex:- I click on 30% colleges in AP, it should show all the

colleges in a list view.

• Say I drill down to a particular college, College 1. You should show the following info.

• It should show college details

• Show list of students in that college

• Show a list of similar colleges

• Say I click on a particular student.

• Show Student details.

• If there is no data found, how would you handle it?

**NOTE: Above mentioned functionality is only for example purpose. You are free to be more creative.**

Data should be dynamically fetched as the user interacts/clicks on the chart sectors/data points.

Example:

There is a chart showing the percentage of courses offered by a college. (Computer Sciences 30%, Information Technology 20%, Electronics 10% etc..).

User clicks on Information Technology -> fetch stats of colleges offering the course IT and show distribution by Location, No. of students, college rating etc.

Clicking on a location/course size should show more similar colleges’ stats. Clicking on a student of a college shall show details of the student.

**\*IMPORTANT**

**Assessment Criteria (including but not limited to) :-**

• Focus heavily on responsive UI/UX for Web

• Focus heavily on building good quality native mobile app

• Using React Functional Components with best use of hooks would be bonus point • You can use UI libraries like Reactstrap, Ant Design etc for a good set of UI components.

• Quality of MongoDB queries.

• Code Readability, Scalability, Maintainability and Modularity

**Sample** Screenshots for Dashboards & List view below.

This is just for example, you could build something similar with your own creativity. 

