Task 2: You are working on a dashboard using ReactJS and Tailwind CSS. The dashboard displays data charts which are fetched from a REST API. However, the charts are not updating in real-time as new data arrives from the API.

Question: How would you troubleshoot and resolve this issue ensuring the charts update in real-time as the data changes? Explain your approach, potential challenges and the overall thought process.

Answer:

> ➢ For troubleshooting and resolving real-time updates for data charts in the dashboard, I will follow some steps:
>
> First of all, ensure that the API is returning the updated data as expected. I will check the API response using Postman or the browser console. If the API responds properly, then I will change the method of data fetching in the project.
>
> If the data is fetched through the useEffect and useState hooks, then I will debug to make sure that the state is being updated correctly when new data is fetched from the API. and also ensure that a dependency array is given in useEffect.
>
> It is best if I use TanStack Query to fetch my data. Because it should automatically refetch the data. And use dynamic values in the query keys that change when new data is available.
>
> If that doesn't update the data in real time, then I will ensure that the refetchOnMount and refetchOnReconnect options are set appropriately to trigger updates when the component mounts or when the network reconnects.