Since, we 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. If we want to resolve this issue ensuring the chart update real-time as data changes,

we can follow State management process or Websocket, External library for real-time communication.

1. State Management: Chart will update/re-render when your component will get new props or state will be updated. Since your chart data that you are updating it not in state of the component, so component don't know about the change and it is not re-rendering your chart. You need to tell the component that something has changed and now time to re-render.

we can also implement pulling mechanism using 'setInterval' or 'axios' library to fetch data at regular interval.

2. Websocket Communication: If the rest api supports websocket communication. Then we can use this to update data in real-time without pulling data in a regular interval.

3. External Library: we can also consider using external library such as redux for more complex state management. It also helps us to handle data real-time.

potential challenges: we have to ensure the CORS, authentication, data format and performance are all okay for update data in real-time, since we use rest api.