COMPX322-24A: ***Assignment Four***

Due Date: ***Monday June 10th, 10 am***

Libraries and Frameworks: ***Event Management Application***

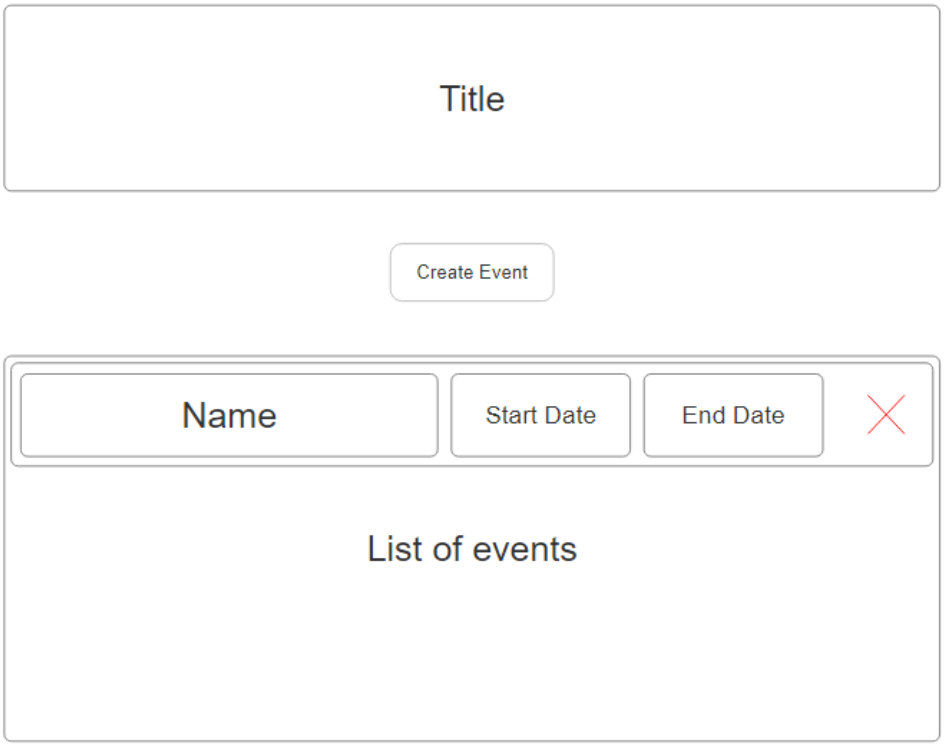
For this coursework you are required to build an event management application which allows users to manage their events. You will use:

- React
- HTML
- CSS
- JavaScript
- Bootstrap [Optional]

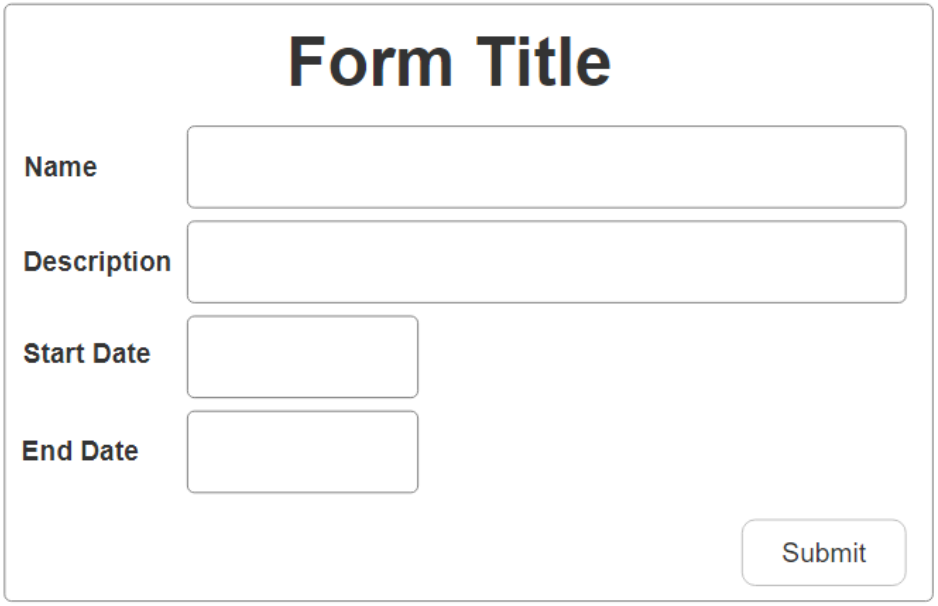
Application Description

- This is a simple application for managing events. Users can see all the events, add more events, delete events and sort events.
- This application interacts with an events API like the one you created for assignment 3. An API app has been provided for you in Moodle. Your React app and the API app are separate apps.
- Create a UI with the following:
    - A title for your app.
    - A button for creating a new event – clicking this button should make a form appear for creating a new event.
    - A list of events – each row in the list should display the event name, start date, end date, and have a button for deleting the event.
    - A search bar for searching the list of events by name – when the user types something in the search bar it will filter the list of events to only show those that match the search string.
    - A way for the user to sort the list of events in ascending or descending order by start date.
- The form should consist of inputs for the event name, description, start date and end date. It should also have a submit button to create the event. Once the event has been created, the event should appear in the list of events.
- This app should use the API to load the list of events from the database. When your app creates or deletes an event, you should use the API to create and delete the events from the database.
- The UI design of the app is up to you. However, some design ideas/wireframes have been given to help you get started.

Here is an example of what your main app view/page might look like.



Here is an example of what your form might look like.



Implementation

Node.js and *npm* are installed on the R-block Linux lab machines.

Set up the project using *'Vite'* in a terminal:

```
npm create vite@latest
```

Follow the prompts (select 'React', then 'JavaScript') to create a React app with the name:

```
react-assn4
```

Change directory to *react-assn4* in your terminal using the following command:

```
cd react-assn4
```

Install the project dependencies using the following command:

```
npm install
```

The most frequent command you'll be using is *npm run dev*. That's going to start a development server that will live preview as you code. You may want to install some extra dependencies using the *npm install* command.

You may also benefit from installing the React developer tools extension in your web browser, which gives you some additional abilities to inspect elements with respect to the React framework.

What to submit and how

Your *react-assn4* app must be submitted electronically using Moodle. The submitted files must be sufficient to recreate your app by running *npm install* followed by *npm run dev*. **Do not include your *node_modules* directory.**

You may choose between submitting a ZIP file or a 'tar-ball' (.tar.gz). For the former, use the name *react-assn4.zip* and *react-assn4.tar.gz* for the latter. **Marks will be deducted for submitted assignments that do meet these requirements.**

In the COMPX322 Moodle site, you will see an *Assignment 4* hyperlink to the submission page. This link allows you to upload your *tar.gz*/*zip* file. You can do this as many times as you want up to the submission deadline for the assignment.

When you submit a file, Moodle will ask you to confirm that what you have submitted is your own work and will provide you with a 'receipt' that establishes that you have indeed submitted something. No other mechanism for submission will be accepted.

How your work will be assessed

The assignment will be marked out of 50 as follows:

Application UI meets the specs above (title, list, creation button and form, search, sort) and looks tidy	10 marks
Display the list of events with name, start date and end date	10 marks
Delete an event	5 marks
Create an event using a form	10 marks
Search the list of events by name	5 marks
Sorting the events in ascending or descending order by event start date	5 marks
Appropriate folder structure and code is clearly formatted and commented	5 marks

The deduction for incorrectly submitted files is capped at 2 marks.