

TDV REACT Programming Challenge

Instructions

This programming challenge is meant to be completed on your own without help from others. The challenge could take as little as 45 minutes to complete, but you may want to allocate 2 hours. You are free to use a vanilla text editor or an IDE to write the code for the challenge.

When completing this challenge, for visualization purposes, you can use the basic controls provided out of the box from REACT or Material-UI. Please note, if using material-ui, you will still be required to style these controls as described in this programming challenge.

Upon completion of the challenge, please submit a zip file containing all source code, tests, and any notes you have written to help solve the challenge. Hand-written notes can be photographed and included in the zip file. The zip file should be sent back to the person who sent you this problem.

Be prepared to discuss your approach to the challenge and any considerations in a follow up interview.

Problem

The challenge is to design a single page REACT web application that allows users to create and manage activities.

The challenge will test your knowledge of REACT in three areas:

1. REACT Layout
2. REACT Data updating
3. REACT CSS Styling

Environment Setup

For this challenge, you will need to set up a REACT dev environment. The following instructions will help you set up a Create React App and help you get started with the code challenge.

1. Depending on your OS, install the latest version of npm. Please follow the instructions for your OS at: <https://docs.npmjs.com/downloading-and-installing-node-js-and-npm>
2. Once npm is successfully installed on your computer, open a shell/command prompt and run the following commands:

```
npx create-react-app tibco-app --template typescript
cd tibco-app
npm start
```

This will create a basic bare-bone REACT application using typescript.

3. To test if everything was created successfully, navigate to <http://localhost:3000/> in your web browser to see the bootstrap app.

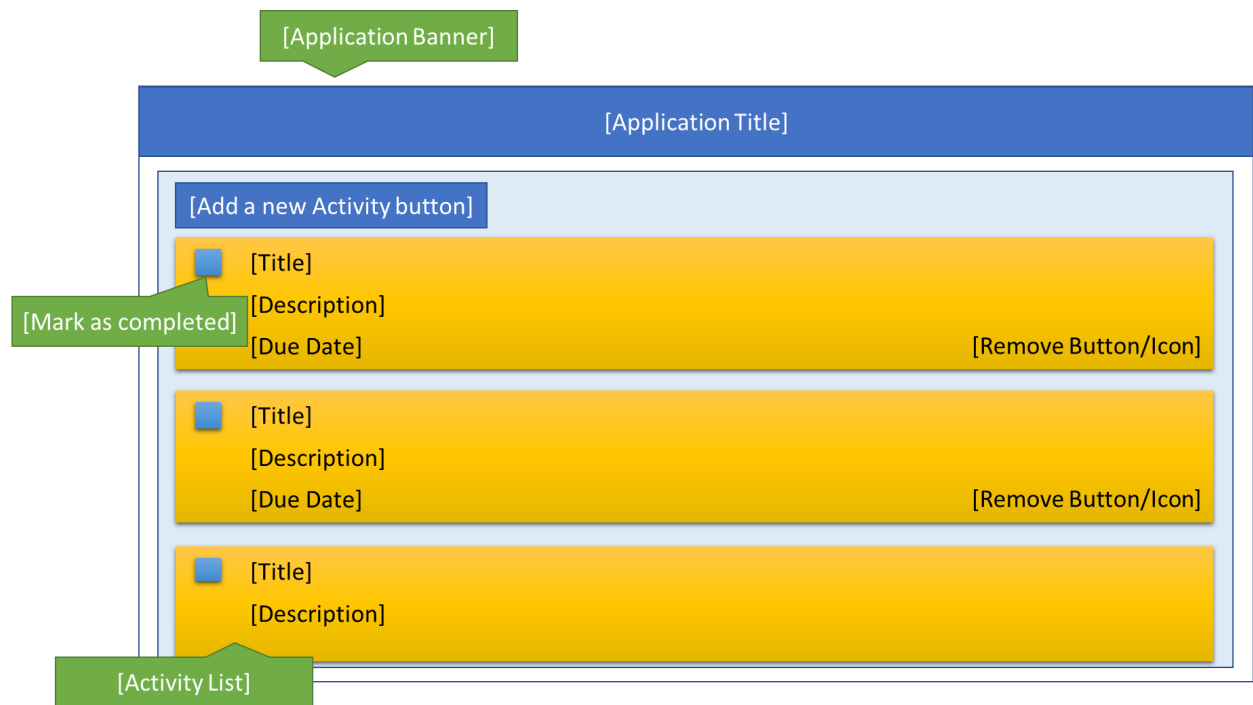
You are now ready to begin coding your code challenge. If you do not have an IDE and would like to code using an IDE, you can use the free Visual Studio Code for your OS located at: <https://code.visualstudio.com/>

Requirements

For this challenge, you will create an activity tracker REACT web application that will allow a user to create and manage a list of activities.

Application Specification		
Field	Description	Required/Details
Application Title	Label: "My Personal ActivityTracker"	Should appear at the top in a banner that spans the full width of the application.
Activity List	List of all activities	<ul style="list-style-type: none">• List should be laid out vertically• Items should be sorted oldest to newest• List should be large enough to show title and description of item• Description should be shown only if it was provided• User should be able to mark any item as completed• User should be able to delete any item from the list
Add New Activity	Allows users to create a new activity item and add it to the list.	Look at "Create Activity Item Specification" for entry fields
The application should take up the full space of the web browser and resize accordingly with the web browser		

Application Sketch



Create Activity Item Specification		
Field	Description	Required/Details
Title	Title of item	Required
Details	Description of item	Optional
Due Date	Date item is to be completed	Date values only Optional
Any other data points you need to manage the Activity item		
Save	Adds the item to the list of activities	Validate required fields before adding

Create Activity Sketch

[Create new Activity]

[Title Field]

[Details Field]

[Due Date Field]

[Add Activity Button]

Optional - As a Dialog Popup

[Application Title]

[Add a new Activity button]

[Title]
[Description]
[Due Date]

[Title]
[Description]
[Due Date]

[Title]
[Description]

[Create new Activity]

[Title Field]

[Details Field]

[Due Date Field]

[Add Activity Button]

remove Button/Icon

remove Button/Icon

Optional - Or as a Side Panel

[Application Title]

[Add a new Activity button]

[Title]

[Description]

[Due Date]

[Remove Button/Icon]

[Title]

[Description]

[Due Date]

[Remove Button/Icon]

[Title]

[Description]

[Create new Activity]

[Title Field]

[Details Field]

[Due Date Field]

[Add Activity Button]

Display Activity Item Specification		
Field	Description	Required/Details
Title	Title of item	Should span the full width of the list. No word wrapping
Details	Description of item	Only visible if provided. Should appear below the title. Allow word wrapping
Due Date	Date item is to be completed	Only visible if provided. Should appear below description as: Due: [Date]
Completed	Indicator if item has been completed	Checkbox or similar control that appears to the far left of the title
Delete	Button or Icon used to delete the task	Should appear to the far right of Due Date
Any other data points you wish to show		