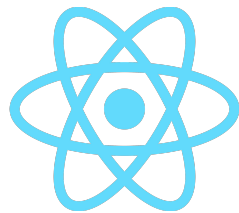


Orbital 2023

Mission Control

Web Development: React (Part 2)



Ravern, Taufiq

What We Aim to Cover

Part 1

- What is React and JSX
- React components
- Managing state in React
- Build Rocket to-do app 🚀
- Deploy to Vercel
i.e. see your app live!

Part 2

- Adding 3rd-party libraries
- Styling the app
- Adding Supabase
 - Sign up and login
 - Persistence (i.e. save your data to a database in the cloud)

Setting Expectations

- This is a 2-hour workshop
- This workshop aims to equip you with practical skills in building React apps and not really advanced React concepts
- We will be pragmatic and aim to get something working 💪

Workshop Format

- I explain React concepts
- I livecode using the aforementioned concept
- You will be given some time to read/understand the code and for Q&A
- Repeat

We will be using CodeSandbox, links can be found here

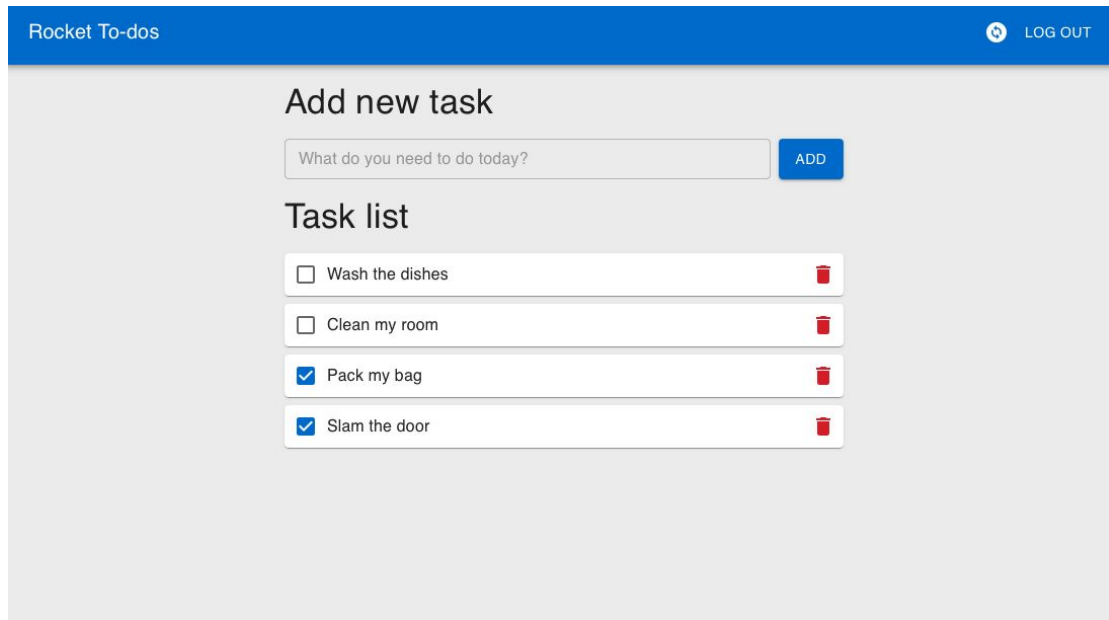
https://docs.google.com/document/d/1kgnNxX7GRxaV_KuJRs4FdxBstmpLzlgmjGo6HI4Dfds/edit#

Today's Content

- Styling our React app
- Using a database to store our to-dos
- Stretch goal: Deploy to Vercel (from your own computer this time)

Final Product

<https://rocket-todos.vercel.app>



The screenshot shows the 'Rocket To-dos' application interface. At the top, there is a blue header bar with the text 'Rocket To-dos' on the left and a 'LOG OUT' button on the right. Below the header, the main content area has a light gray background. It features a section titled 'Add new task' with a text input field containing the placeholder 'What do you need to do today?' and a blue 'ADD' button. Below this is a section titled 'Task list' which contains four task items, each in a white box with a red border. The first two tasks, 'Wash the dishes' and 'Clean my room', have unchecked checkboxes. The last two tasks, 'Pack my bag' and 'Slam the door', have checked checkboxes. Each task box also includes a red trash icon on the right side.

Rocket To-dos

LOG OUT

Add new task

What do you need to do today?

ADD

Task list

- ☐ Wash the dishes
- ☐ Clean my room
- ☒ Pack my bag
- ☒ Slam the door

Email: orbital@example.com

Password: password

Live Q&A

[https://app.sli.do/event/eJJudmxa5VCqz5hrJfVp5R/
live/questions](https://app.sli.do/event/eJJudmxa5VCqz5hrJfVp5R/live/questions)

Event Code: **#7241 094**

*Maximum of 100 participants (free plan; I'm poor)
so only visit the site to upvote or post new
questions.*

*During live Q&As I'll display the questions on
screen.*



Accompanying Document

https://docs.google.com/document/d/1kgnNxX7GRxaV_KuJRs4FdxBstmpLzlgmjGo6HI4Dfds/edit#

Contains more resources and relevant links.



Recap

Recap

- **Components** are the building blocks of React
- **Props** refers to data passed from a parent to child component
- **State** refers to data stored within the component
- When props or state has changed, the component is **re-rendered**
- If state needs to be shared across components, store it in the common ancestor's state, i.e. **Lifting state**
- **Do not modify state directly**; instead make a copy of the existing state, modify it and then set the new modified copied state

Rendering and Re-rendering



Lifting of state



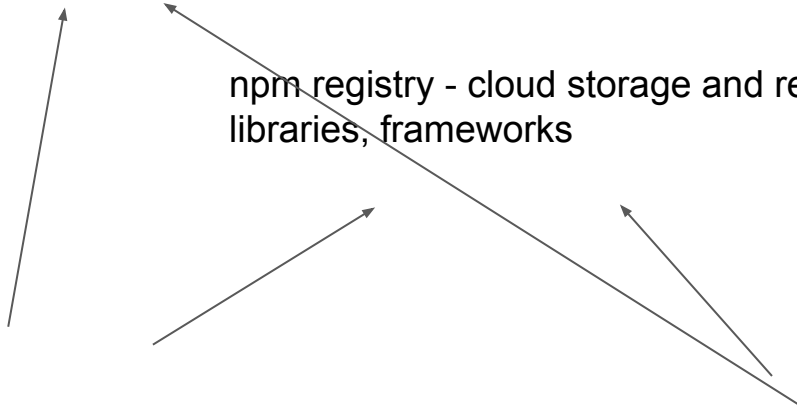
Let's Begin!

Private github registries

npm registry - cloud storage and registry for
libraries, frameworks

npm command-line interface
npm install blah
package-lock.json

Yarn command-line interface / package manager
yarn add blah
yarn.lock



Exercises

https://docs.google.com/document/d/1kgnNxX7GRxaV_KuJRs4FdxBstmpLzlgmjGo6HI4Dfds/edit#

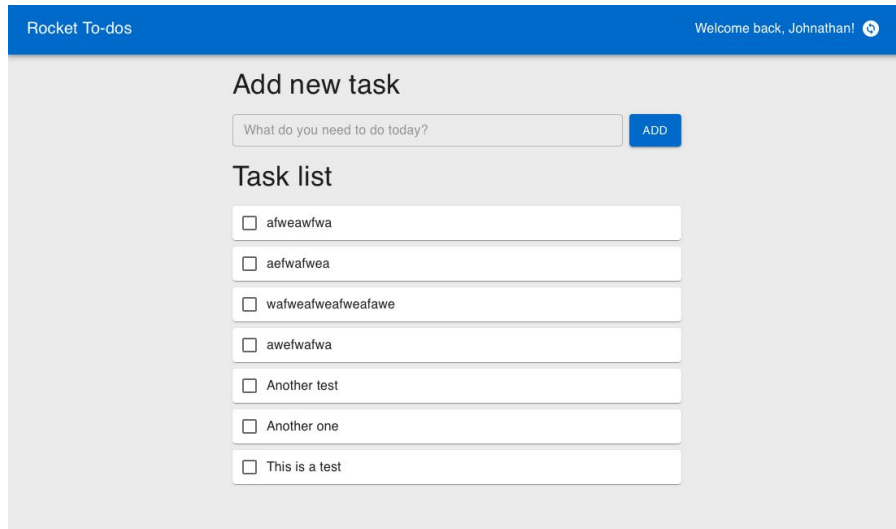
- The final output of each exercise should be the next exercise (e.g. Exercise 0's outcome is Exercise 1)



Exercise 10

<https://codesandbox.io/s/orbital-react-2023-exercise-10-b6ziof>

- Styling the app
- Installing third-party libraries (MUI)

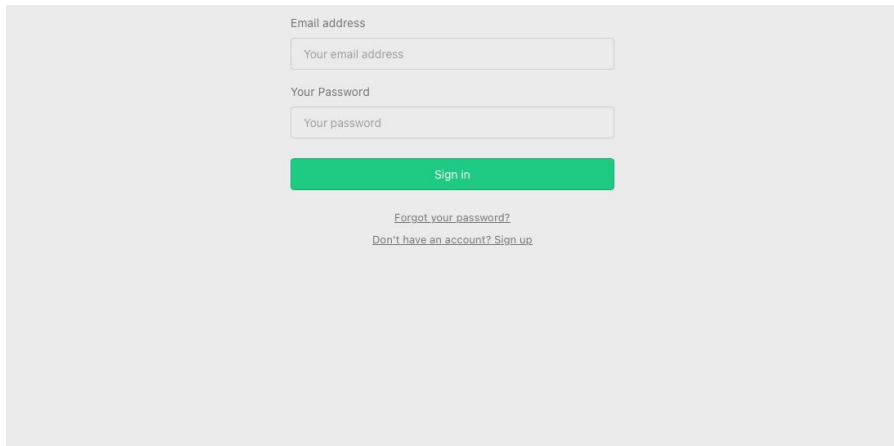


The screenshot shows a web application titled "Rocket To-dos". At the top, a blue header bar contains the text "Rocket To-dos" on the left and "Welcome back, Johnathan!" with a user icon on the right. Below the header, the main content area has a light gray background. It features a section titled "Add new task" with a text input field containing the placeholder "What do you need to do today?" and a blue "ADD" button. Below this is a section titled "Task list" which contains a vertical list of six tasks, each with a checkbox and a text label: "afweawfwa", "aefwafwea", "wafweafweafweafawe", "awefwafwa", "Another test", and "Another one". The last task, "This is a test", is partially visible at the bottom of the list.

Exercise 11

<https://codesandbox.io/s/orbital-react-2023-exercise-11-4fwtd>

- Connecting the app to Supabase
- Add ability to authenticate with Supabase



Email address

Your Password

Sign in

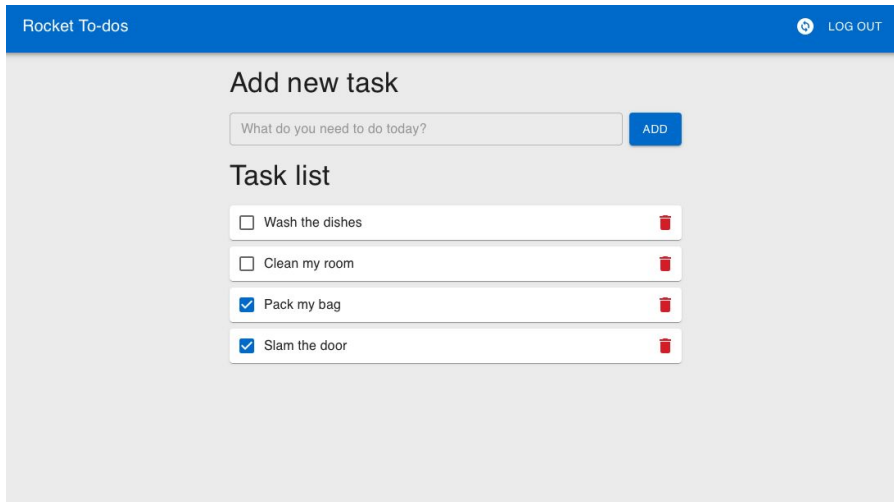
[Forgot your password?](#)

[Don't have an account? Sign up](#)

Exercise 12

<https://codesandbox.io/s/orbital-react-2023-exercise-12-zhqcmi>

- Add CRUD for to-dos
 - Create
 - Read
 - Update
 - Delete



The screenshot shows a web application titled "Rocket To-dos". At the top right, there is a "LOG OUT" link. Below the header, the "Add new task" section features a text input field with the placeholder "What do you need to do today?" and a blue "ADD" button. The "Task list" section displays a list of four tasks, each with a checkbox, the task text, and a red trash icon for deletion:

Task	Status	Action
Wash the dishes	<input type="checkbox"/>	
Clean my room	<input type="checkbox"/>	
Pack my bag	<input checked="" type="checkbox"/>	
Slam the door	<input checked="" type="checkbox"/>	

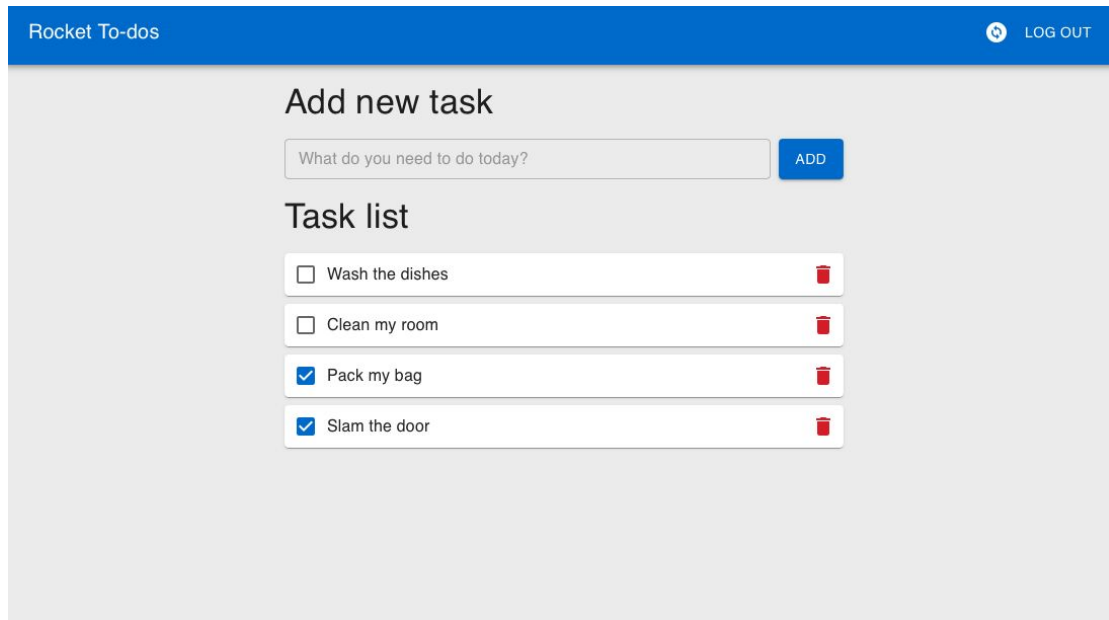
Summary

Recap

- We can use third-party libraries to add complex functionality to our React app
- **Material UI** is one of many component libraries to style your app
- **Supabase** is one of many Platform-as-a-Service (PaaS)
 - Authentication
 - Database
 - Media storage (e.g. photos, videos, etc.)

Final Product

<https://rocket-todos.vercel.app>



The screenshot shows the 'Rocket To-dos' application. At the top is a blue header bar with the text 'Rocket To-dos' on the left and a 'LOG OUT' button on the right. Below the header, the main content area has a light gray background. It starts with the heading 'Add new task' followed by a text input field containing the placeholder 'What do you need to do today?' and a blue 'ADD' button. Below this is the heading 'Task list'. Underneath, there is a list of four tasks, each in a white box with a red border and a red trash icon on the right. The tasks are: 'Wash the dishes' (unchecked), 'Clean my room' (unchecked), 'Pack my bag' (checked), and 'Slam the door' (checked).

Rocket To-dos

LOG OUT

Add new task

What do you need to do today?

ADD

Task list

- ☐ Wash the dishes
- ☐ Clean my room
- ☒ Pack my bag
- ☒ Slam the door

Email: orbital@example.com

Password: password

Feedback

<http://bit.ly/orbital23-mc2-feedback>



Q&A

Thank You

Telegram [@ravernkoh](https://t.me/@ravernkoh)
Email ravern@nushackers.org