



# Overview of Full Stack Development & Deployment

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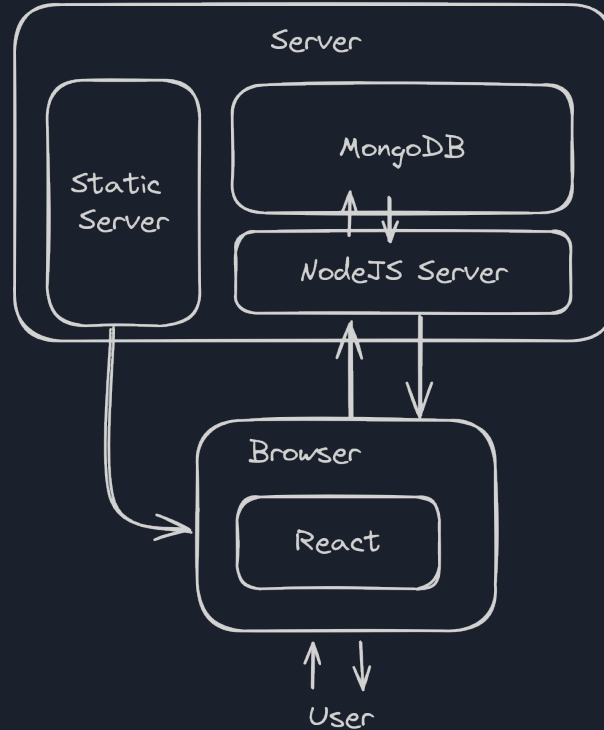
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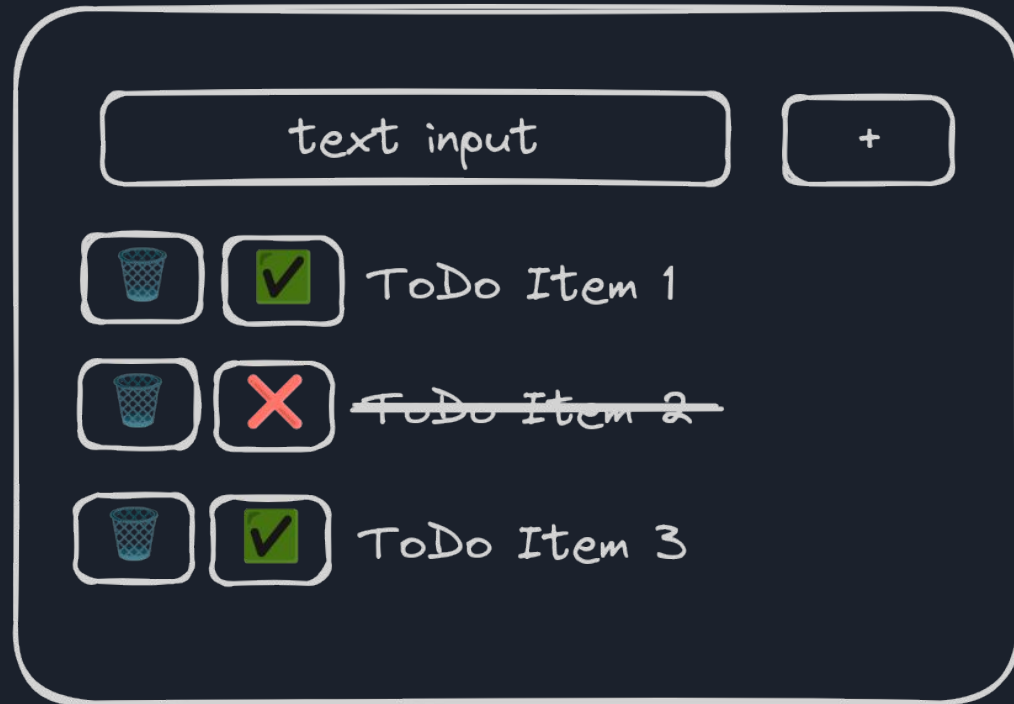
# MERN Stack

- MongoDB - Flexible NoSQL DB
- ExpressJS - Framework for building a lightweight backend with NodeJS
- ReactJS - Frontend Javascript framework for building dynamic single page applications
- NodeJS - JavaScript runtime for servers

# Overall Architecture



# Simple ToDo App



# Developing The Backend



# Linking The Frontend & The Backend



# Deploying To AWS







# PWA

- PWAs are between web apps and mobile apps. Users can add PWAs to their home screen or desktop.
- Behave similarly to native apps

## How to make a PWA?

- Add ServiceWorker and other PWA files
- Use a PWA template
  - <https://create-react-app.dev/docs/making-a-progressive-web-app/>
  - <https://vite-pwa-org.netlify.app/>



# Mobile App

Mobile Apps allow you to reach a wider, more dedicated customer base

How to make a mobile app?

- React Native - similar to react <https://reactnative.dev/>
- Capacitor - wraps webview around web app <https://capacitorjs.com/>
- Ionic - Capacitor + Native like UI components <https://ionicframework.com/>



# Desktop App

Turn your web app into a desktop app.

How to make a desktop app?

- ElectronJS - you can think of it as Capacitor but for desktop <https://www.electronjs.org/>
- Use an ElectronJS React template  
<https://github.com/electron-react-boilerplate/electron-react-boilerplate>



Thank You