



Welcome to the

React x Web Database Workshop!

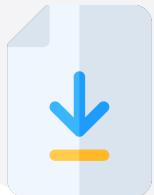


Recording will
be on YouTube

Download
Code & Slide

bit.ly/REACT_GET

git clone the
GitHub Repo



Sign up for
the following

#1 Developer Account
bit.ly/KDP_signup

#2 Kintone Subdomain
bit.ly/K_DevLic



Asking Questions
& Raising Hands

Post questions in
the chat anytime!

Include your code
& error messages.



\$25 Gift Card
Raffle at the End



README.md

Get Started

First, let's download the [ahandsel/React_Workshop_by_Kintone](https://github.com/ahandsel/React_Workshop_by_Kintone) Repo
the folder.

Run these commands
from your terminal

```
cd Downloads
```

```
git clone https://github.com/ahandsel/React_Workshop_by_Kintone
```

```
cd React_Workshop_by_Kintone
```

```
ls
```

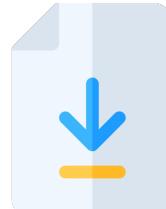
```
README.md
```

```
backend
```

```
frontend
```

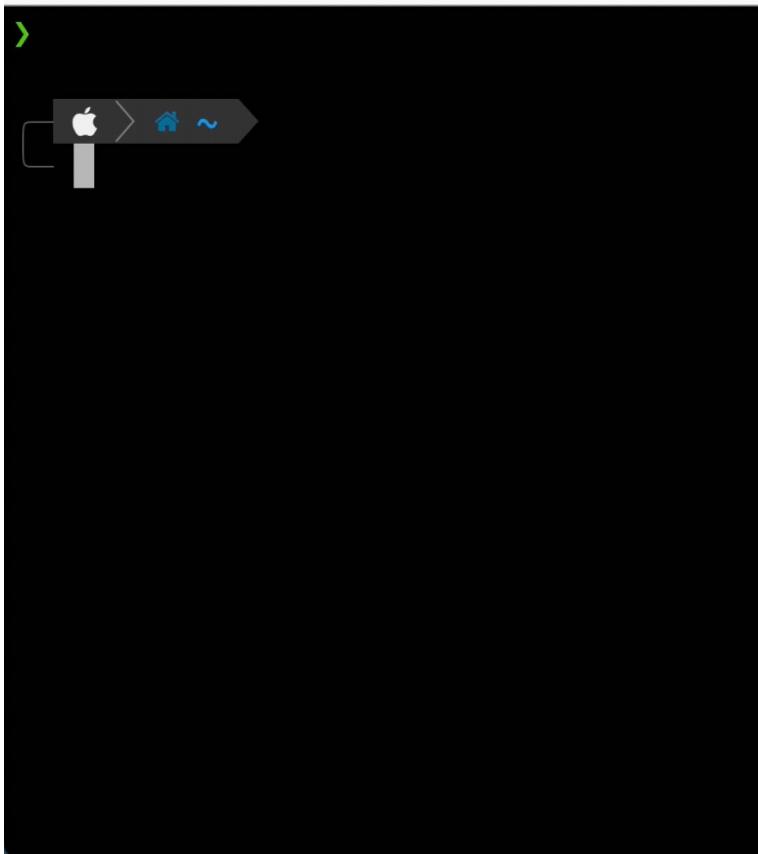
We will use this repo as
the starting point

Inside there should be two folders (frontend & backend) and a README file.





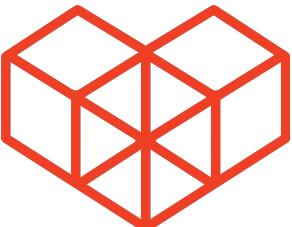
Download the Code & npm install



```
cd Downloads  
git clone https://github.com/  
ahandsel/React_Workshop_by_Kintone  
  
cd React_Workshop_by_Kintone  
  
cd frontend  
  
npm install
```



#1 - Sign Up for Developer Account



bit.ly/KDP_signup

⚠ Do NOT use Safari ⚠

⚡ Accept Cookies First ⚡

✓ Chrome & Firefox works ✓

The screenshot shows a sign-up form for the Kintone Developer Program. The page has a red header with the Kintone logo and navigation links. The main content area has a yellow background with a giraffe image. It contains instructions to sign up and verify an email, followed by input fields for 'Your full name *' and 'Your email *'. There is a 'reCAPTCHA' checkbox labeled 'I'm not a robot'. At the bottom are 'Sign up' and 'Cancel' buttons.

Sign up to Kintone Developer Program

Please fill out this form, and we'll send you a welcome email so you can verify your email address and sign in.

Your full name *

Your email *

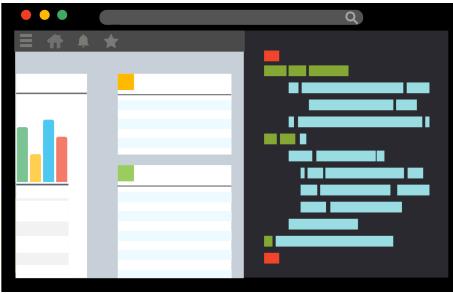
I'm not a robot

Sign up

Cancel



#2 - Create a Kintone Subdomain



bit.ly/K_DevLic

⚠ No Special Characters ⚠

⚡ Name your Subdomain with only ⚡
lowercase [a-z], numbers [0-9],
& hyphens [-]

✓ e.g. weekend-hacker, coffee4life ✓

Terms of Service for the Developer License

The account holder of this developer program who applies for the license (hereinafter referred to as "User") must comply with all of the provisions and the following conditions set out by Kintone Corporation (hereinafter referred to as "Kintone"), who will provide a Kintone developer license to the User.

[Kintone Developer License Terms of Service](#)

Developer License Application Form

First Name*

Last Name*

Email*

Company Name*

Create your Kintone Developer License subdomain (lowercase, numbers and hyphens only)*
For example: mydomain, coffee-lovers

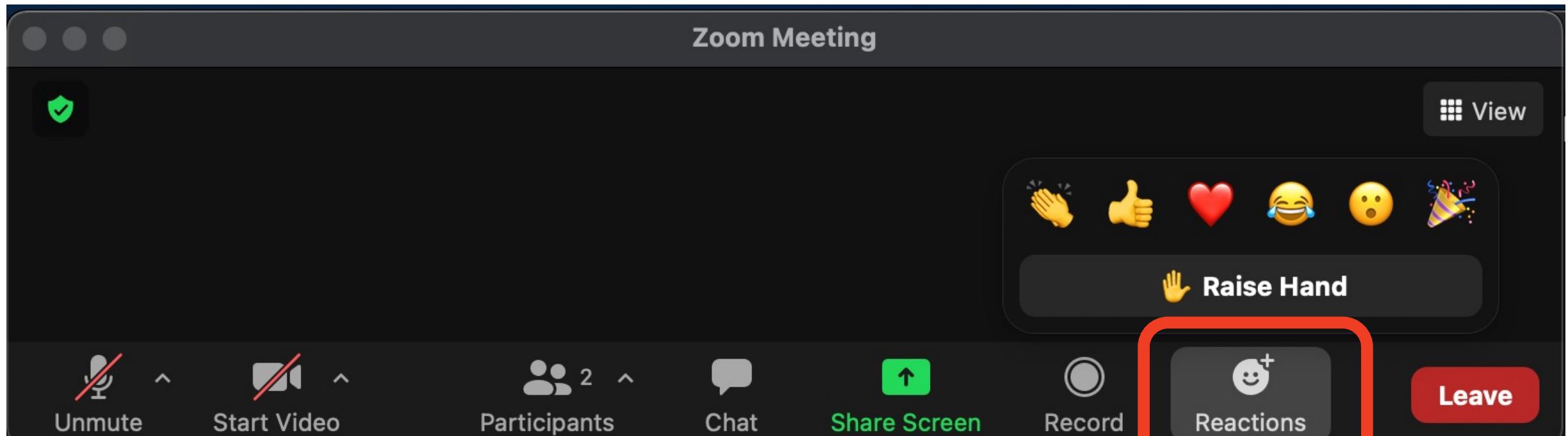
I agree with the [Kintone Developer License Terms of Service*](#)

protected by reCAPTCHA Privacy - Terms

[Sign Up](#)



Let's Practice using Zoom's Reactions



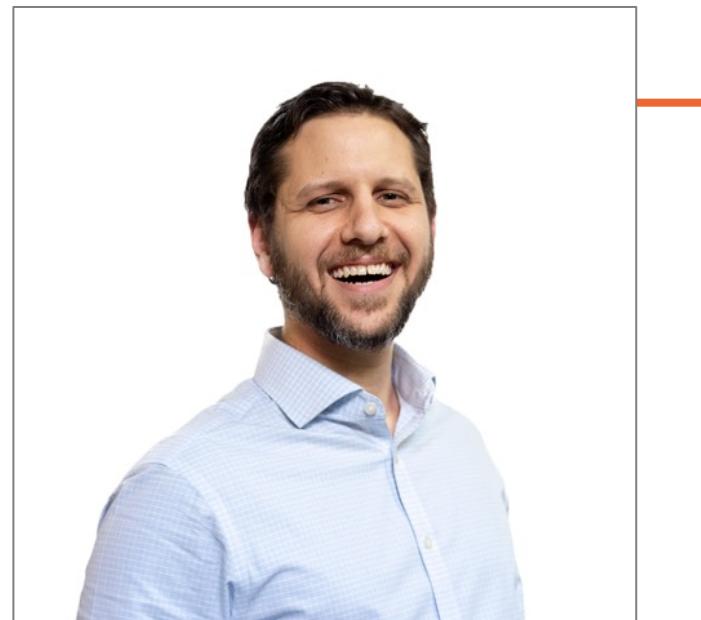
This helps us out who to look out for throughout this workshop.



Hello From Kintone

Nim

Technical Evangelist



Niki

Developer Advocate

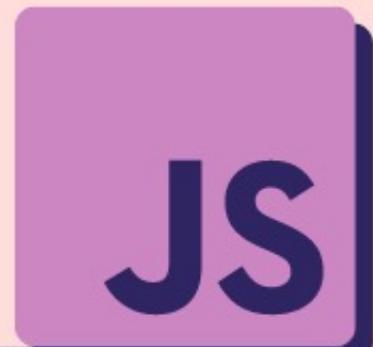
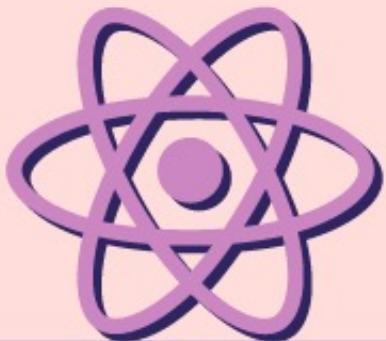


Genji

Developer Advocate



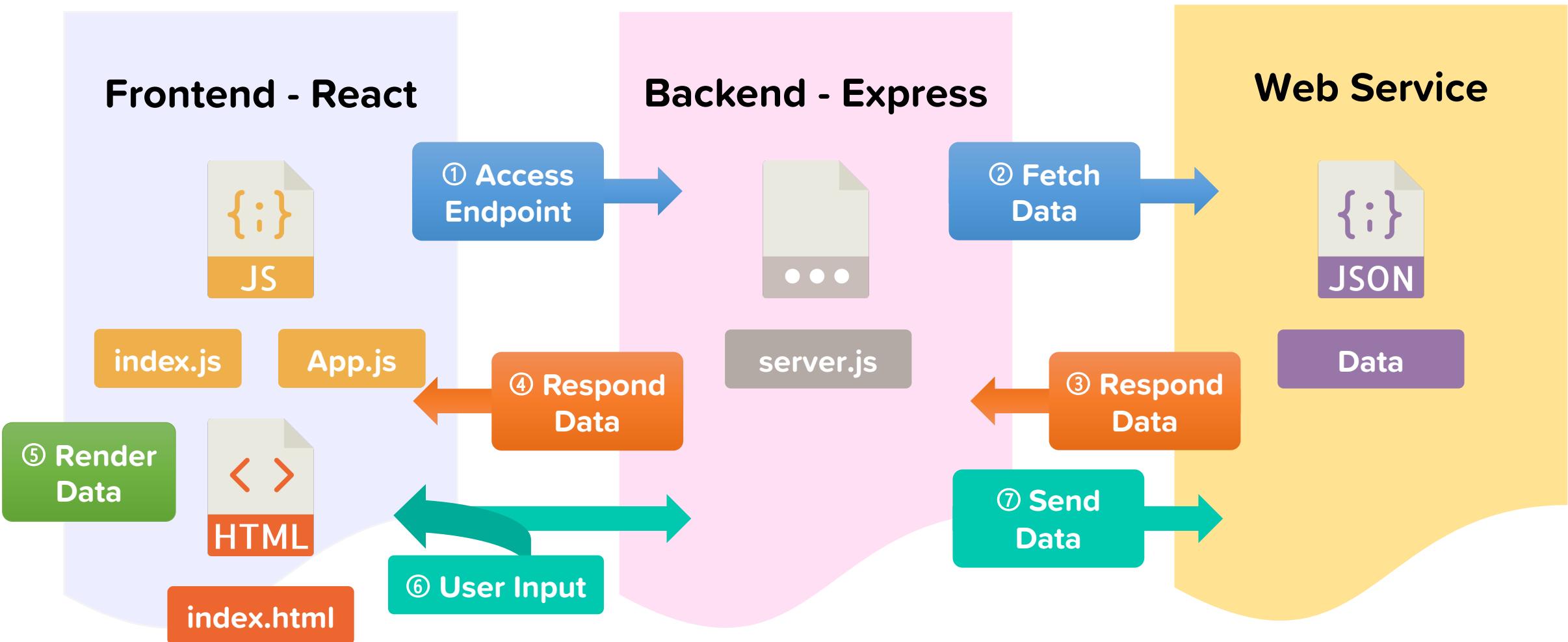
GET & POST Data to a Web Database!



React & REST API Workshop



What We Will Make Today



What We Will Make Today

React App Manga DB - Goal - Records +

devevents.kintone.com/k/28/ Genji Guest :

kintone

Manga DB - Goal

App: Manga DB - Goal

List View

Records 1 - 8 of 8

	Title	Alternative Title	Author	Genre	
1	Undead Unluck	Undead Unluck	Yoshifumi Tozuka	Action	 
2	Golden Kamuy	Golden Kamuy	Satoru Noda	Action Comedy	 
3	Hachiwan Diver	81 diver	Yokusaru Shibata	Action Comedy Sports	 
4	Kimetsu no Yaiba	Demon Slayer	Koyoharu Gotouge	Action	 
5	Batuque	Batuque	Toshio Sako	Action	 
6	Usogui	The Lie Eater	Toshio Sako	Action Gambling	 
7	Gunnm	Battle Angel Alita	Yukito Kishiro	Action Cyberpunk	 
8	Ouran High School Host ...		Bisco Hatori		 

Records 1 - 8 of 8

Download the Repo

```
cd Downloads  
  
git clone https://github.com/  
ahandsel/React_Workshop_by_Kintone  
  
cd React_Workshop_by_Kintone  
  
ls  
  
Code .
```



Check Node.js & npm version

Check the versions

Check the versions in
React_Workshop_by_Kintone

```
$ node -v  
$ npm -v
```

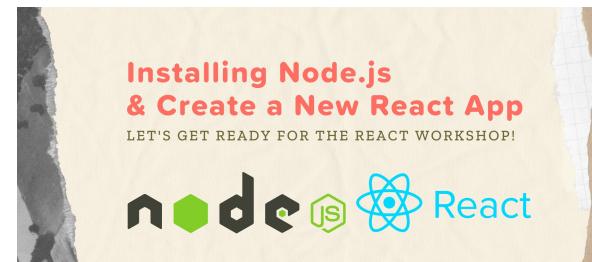
Required for React:

Node ≥ 10.16 & npm ≥ 5.6

If missing, install

New to Node.js?
Check out README's [Guide on Installing Node.js & npm](#) section

There is a companion video:



youtu.be/4Kw-i_rX3tY

Open a Terminal Per Folder

Both Terminals

```
› cd ~/Downloads  
› cd React_Workshop_by_Kintone
```

Terminal 1 – frontend

```
› cd frontend  
  
npm install
```

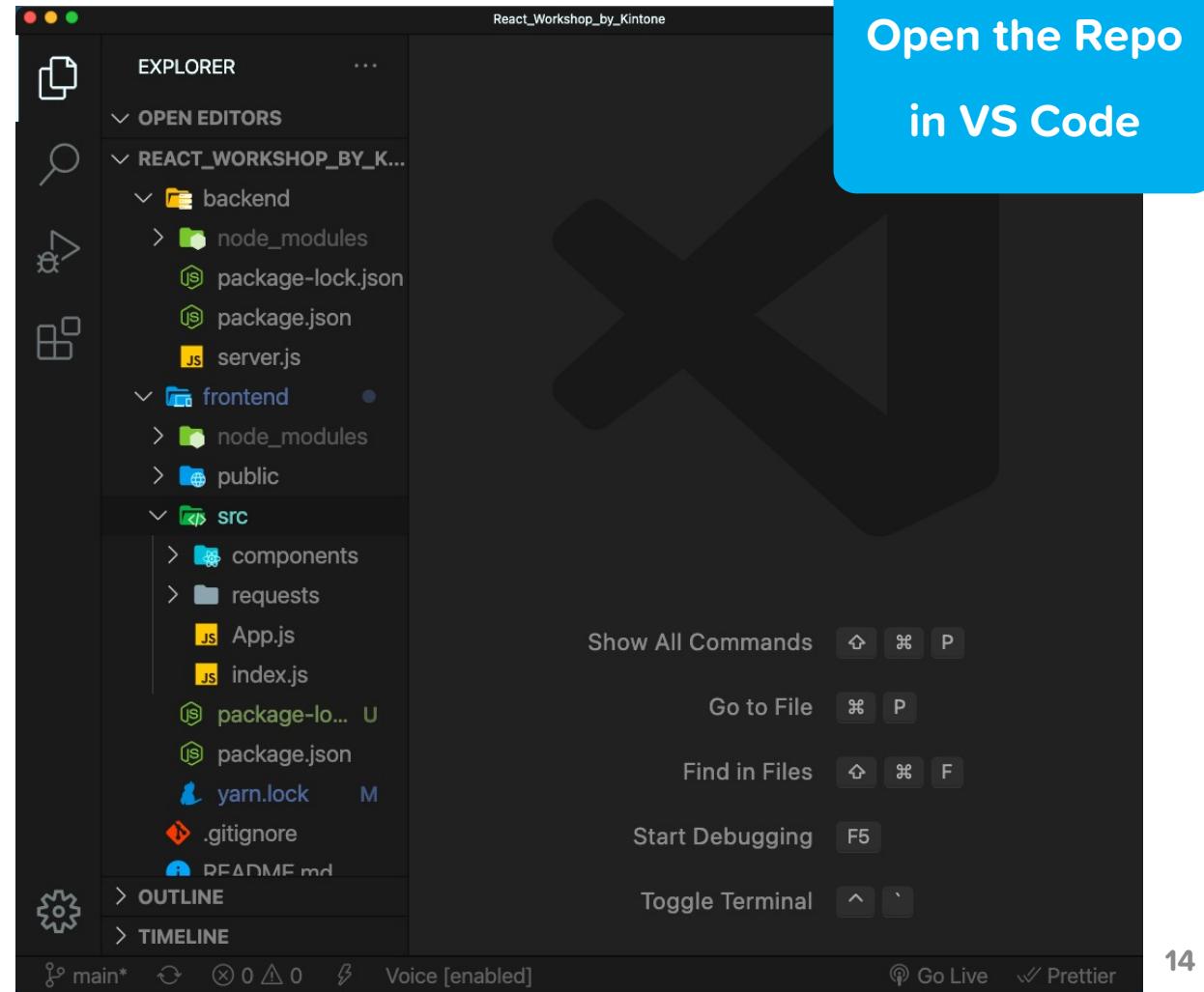
Terminal 2 - backend

```
› cd backend  
  
npm install
```

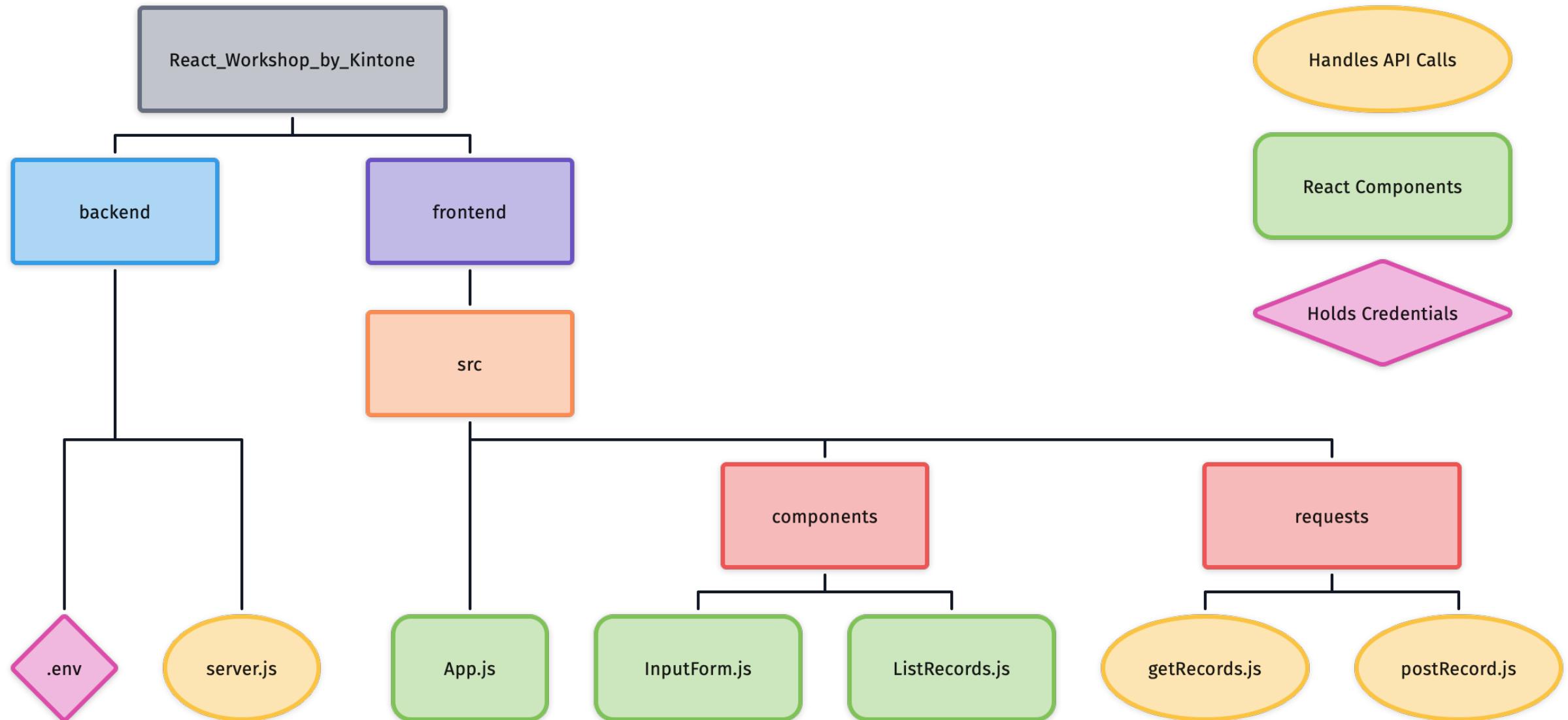
Overview of the Repo

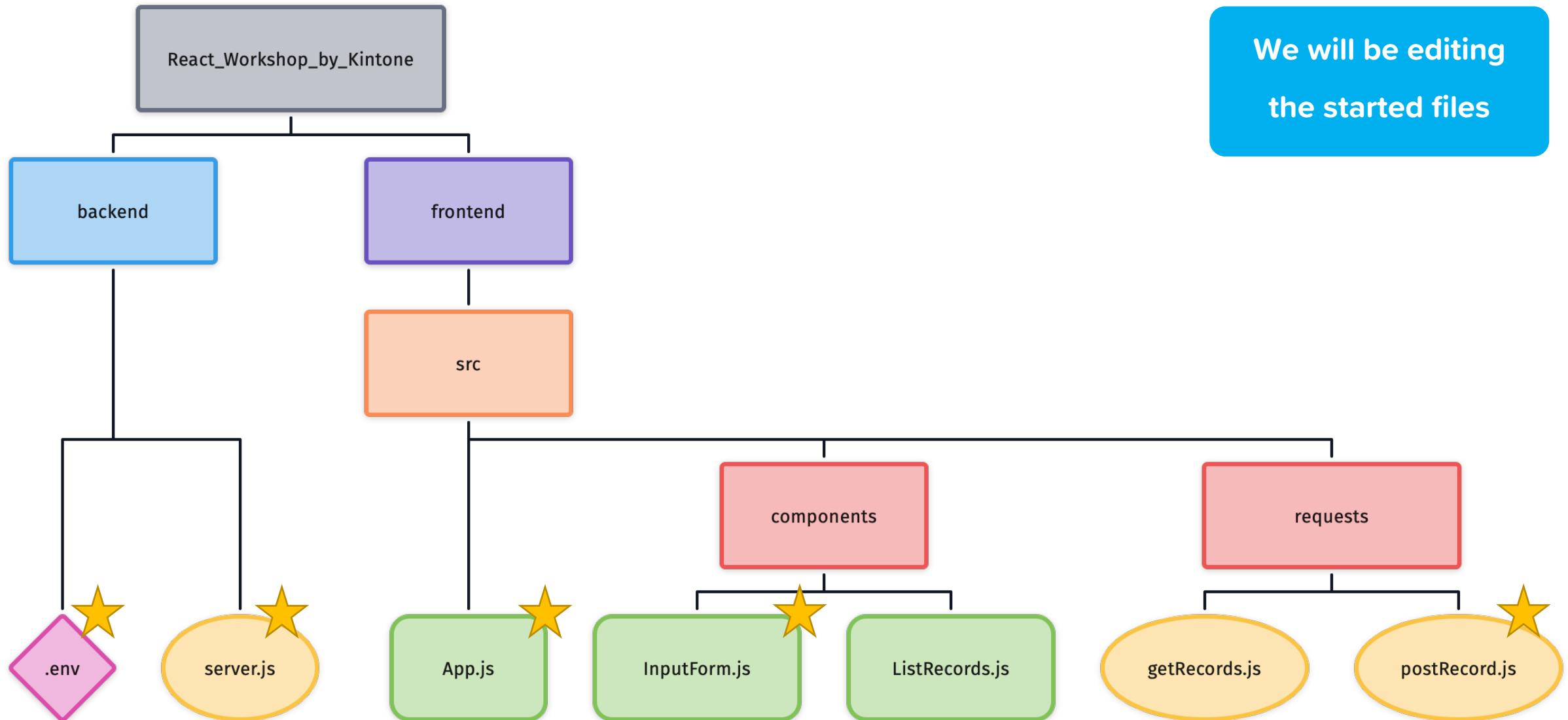
```
React_Workshop_by_Kintone/
└── backend/
    ├── .env.example
    └── server.js
└── frontend/
    ├── public/
    │   └── index.html
    └── src/
        ├── App.js
        ├── index.js
        └── components/
            ├── InputForm.js
            └── ListRecords.js
        └── requests/
            ├── getRecords.js
            └── postRecord.js
```

Files We Will
Look Inside

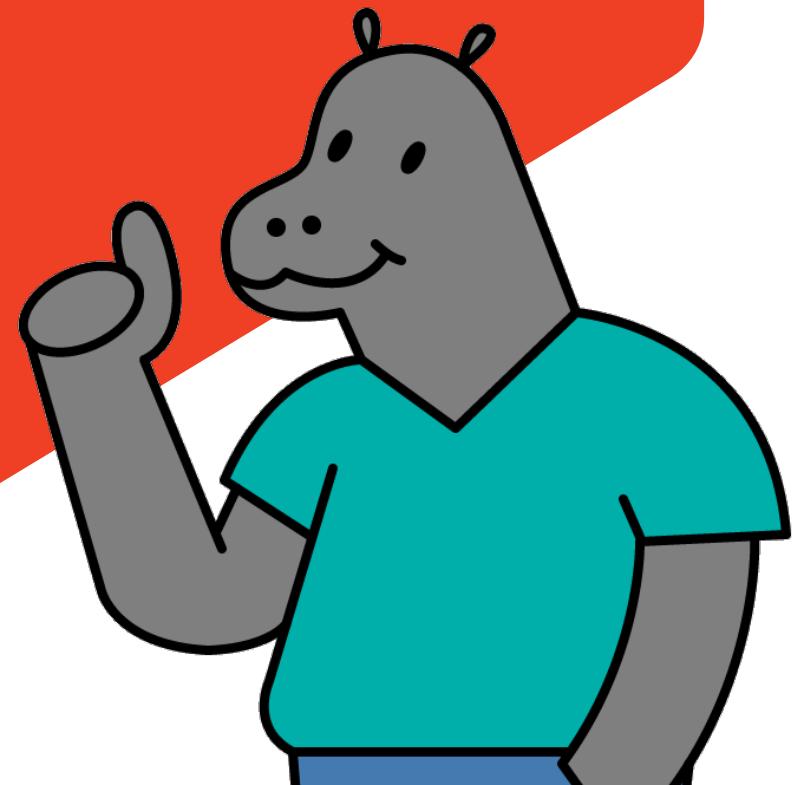


Overview



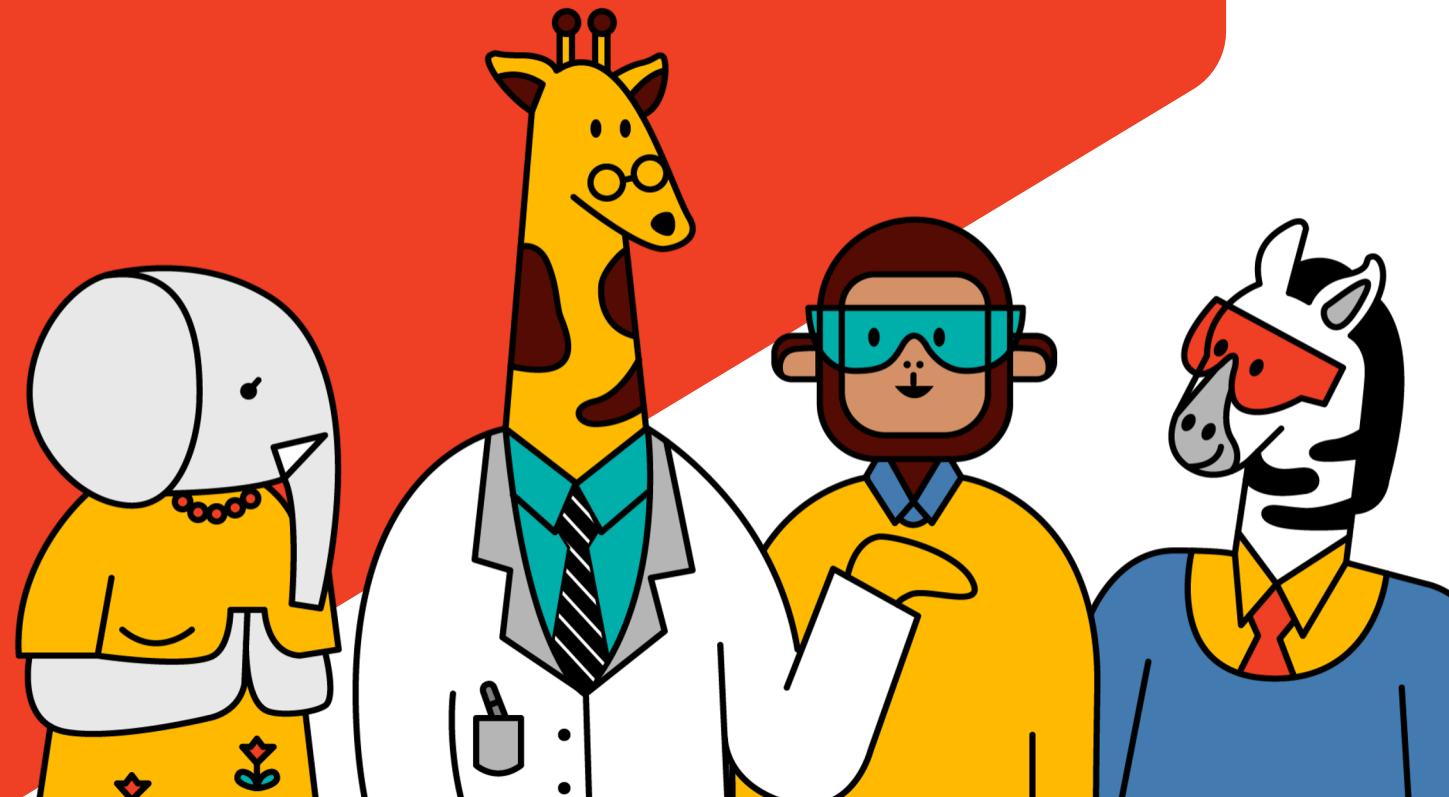


Quick check-in with Zoom polling



What is Kintone?

Built for teamwork,
designed by you



What is Kintone?

The screenshot displays the Kintone interface with a green header labeled "Sales". On the left, there's an "Announcement" section with a bell icon. Below it are three cards: "Customer Database" (Admin:Green), "Sales Leads" (Admin:Green), and "Contact Log" (Admin:Green). The main area features a "Dashboard" with two charts: a bar chart for "Sales Leads: Monthly Expected Sales (per priority)" and a pie chart for "Total(Amount)". The bar chart shows sales for Middle, High, and Low priorities over time. The pie chart breaks down the total amount by creator type. To the right of the dashboard is a "Threads" section listing "Deal Flow", "Sales Division", and "Monthly Reports". Below that is an "Apps" section listing "Vendor Database", "Item Database", "[Of] Product List", "[Of] Invoices", "[Of] Seminar Survey", "[Of] Attendee Lists", "[Of] Event Calendar", "[Of] Activity Log", "[Of] Sales Leads", and "[Of] Customer Database". At the bottom is a "People" section showing member profiles.

Kintone is a **no-code / low-code** cloud platform for teams to easily share and **collaborate** on their **data** efficiently.

Where Kintone is Special!



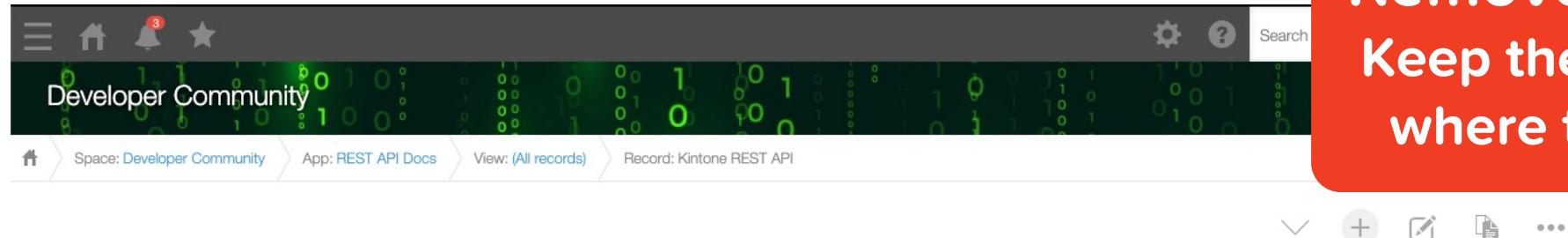
Missing - Unified Communication

Data Silos

Information is not being
shared effectively

Scattered Communication
Unclear where the
conversation is happening

What is Possible?



Remove the Friction
Keep the conversation
where the data lives

Where
Data
Lives

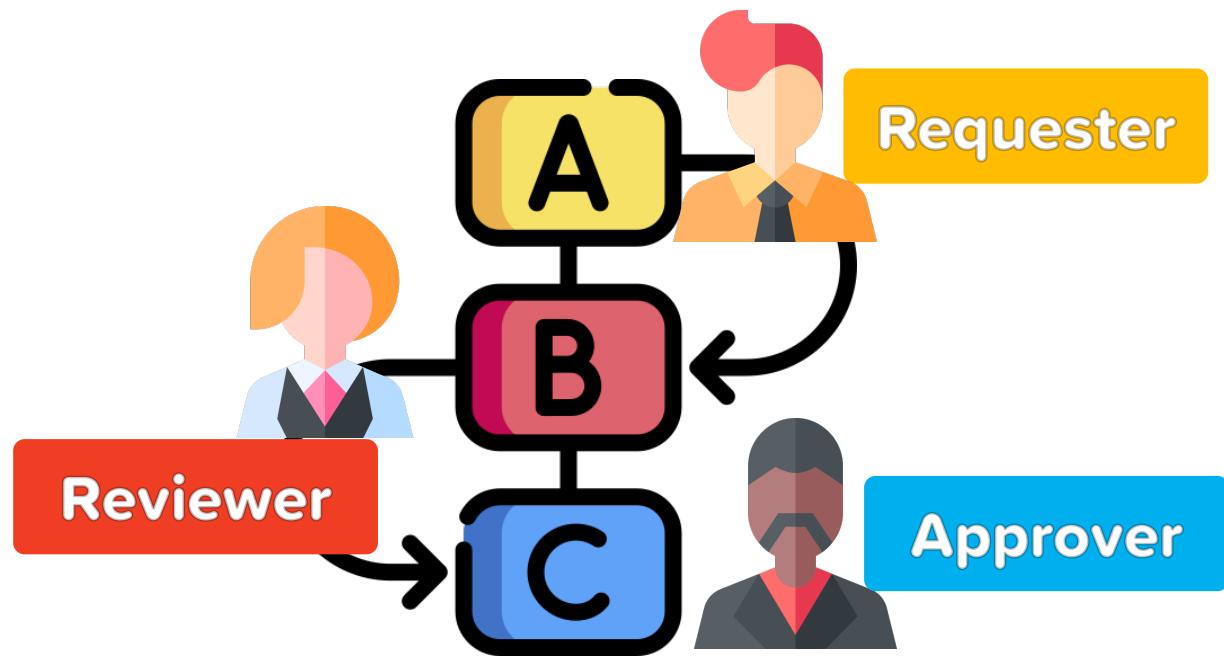
A screenshot of the Kintone REST API Docs interface, identical to the one above but with a blue border. It shows the same table of contents and fix history table.

A screenshot of a communication feed from a social media or messaging platform. It shows a thread between three users: 'Clare - Support', 'Sharon - Developer @Genji', and 'Genji'. The messages are: 1: Genji - Please take a look at this document. 2: Sharon - Developer @Genji - Oh, shoot, thanks for catching my mistake! 3: Clare - Support - Please fix the Fixed the GET API List API link. The feed also includes 'Like' and 'Reply' buttons.

Where
Communication
Lives

Workflow

With Process Management,
establish a workflow so that the
right people sees the **right info**
at the **right time**.



The screenshot shows a software interface for a "Developer Community". The top navigation bar includes "Space: Developer Community", "App: KDP Event", "View: Summary", and "Record: No Server Data Visualization: Build a W".

A modal dialog box is open, titled "Assign Reporter" and "Change Assignee". It contains fields for "Next Status" (set to "Writing Report") and "Select Assignee". The assignee list includes:

- Genji (radio button)
- Sharon - Developer (radio button)
- John - Manager (radio button)
- Clare - Support (radio button, highlighted with a blue border)

At the bottom of the dialog are "Cancel" and "Confirm" buttons.

The background shows a feed of posts. One post by "Genji" says: "Assign this event to @Clare - Support". Another post by "Genji" says: "Build a Word Cloud! together such a great w".

Kintone Apps

The screenshot shows the Kintone Shared To Do app interface. At the top, there's a navigation bar with icons for home, search, and settings, along with a 'Search in App' field. Below the header, the title 'Shared To Do' is displayed, followed by a breadcrumb trail 'App: Shared To Do'. A descriptive text block states: 'To Do App with Process Management feature. All tasks assigned to you can be viewed under "Assigned to me" section on the portal page. Always be organized and on time by setting up reminders and visualizing team's progress through snazzy graphs.' The main area features a table with the following columns: 'To Do', 'Priority', 'Due date', 'Status', 'Details', and 'Attachment'. The table contains five records, each with a small blue icon and a checkbox in the attachment column. The records are:

To Do	Priority	Due date	Status	Details	Attachment
Define requirements	Medium	Apr 05, 2019	In progress	Please start defining the requirements for our ne...	<input type="checkbox"/> (X)
Research vendors	Medium	Apr 08, 2019	Complete	Find at least 3 vendors and summarize their pro...	<input type="checkbox"/> (X)
Send invoice to customer	High	Apr 11, 2019	Assigned		<input type="checkbox"/> (X)
Define scope	Low	Apr 12, 2019	Assigned	XYZ Project would be a long project divided into...	<input type="checkbox"/> (X)
Map out schedule	Low	Apr 19, 2019	Assigned		<input type="checkbox"/> (X)

At the bottom of the table, it says 'Records 1 - 5 of 5'.

The main building block in Kintone is an **App**.

Imagine an **App** as a powerful, online table where data is stored in records.

Kintone Apps

Sales & Leads > Settings

Last Updated: Mary Simpson 12:10 AM

Sales & Leads

Form Views Graphs App Settings

Save Form

Leads & Sales

Lead Title Sales Representative

Contact Info

Company Name Website

Contact Name Job Title

Email Telephone Number

Product Name Product ID Unit Price Quantity

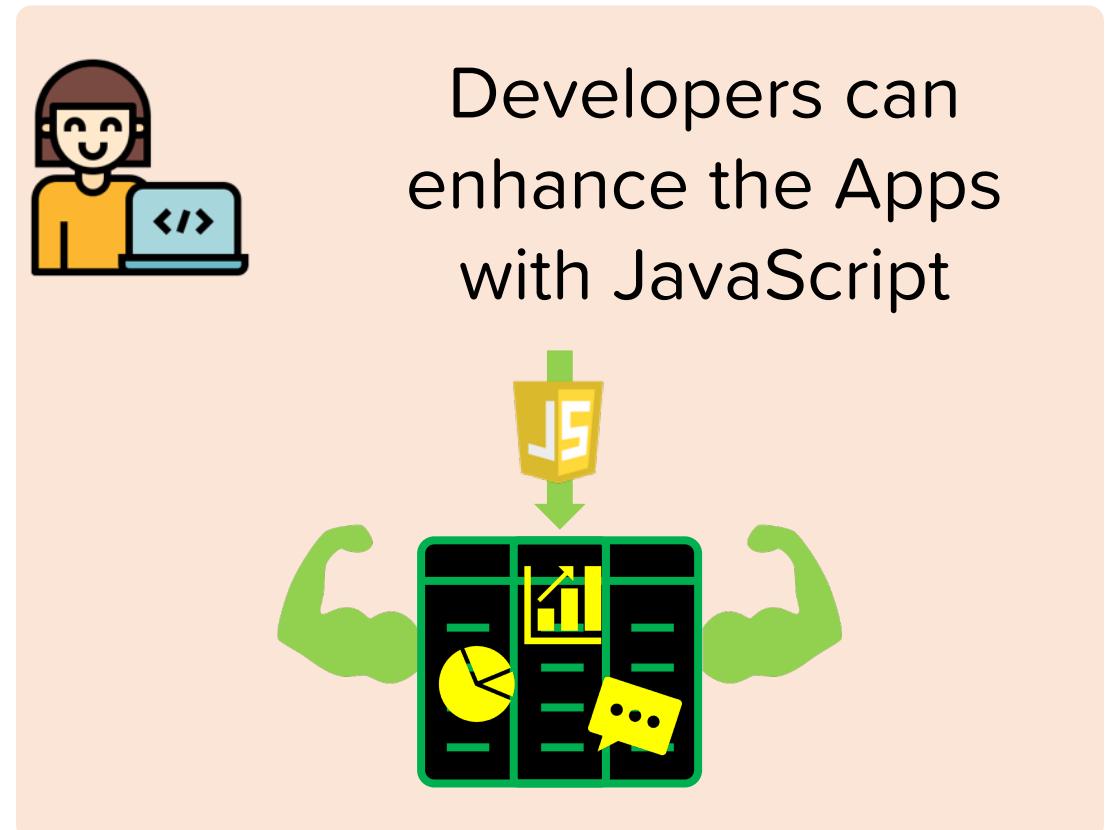
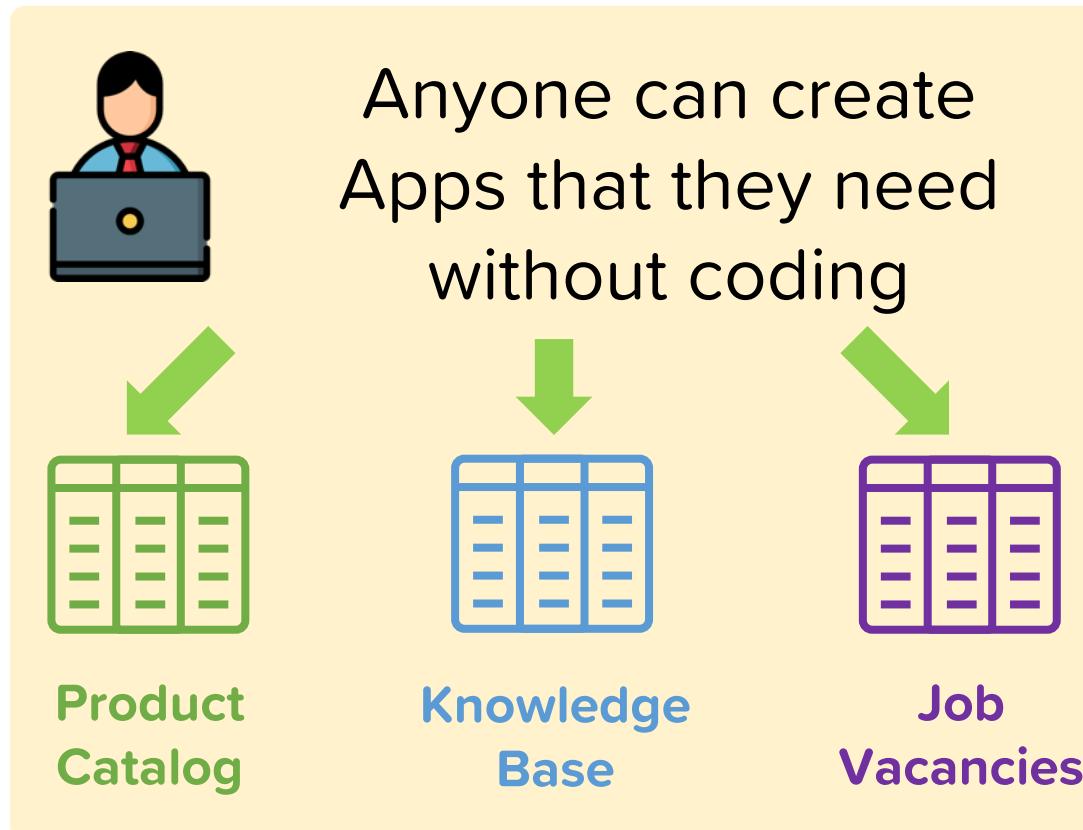
The screenshot shows the Kintone app builder interface for a 'Sales & Leads' app. At the top, there's a navigation bar with 'Sales & Leads > Settings'. Below it, a header bar shows 'Last Updated: Mary Simpson 12:10 AM' and buttons for 'Discard Changes' and 'Update App'. The main area is titled 'Leads & Sales' and contains a 'Form' tab. On the left, there's a sidebar with a green 'Save Form' button and a list of field types: Label, Rich text, Number, Radio button, Multi-choice, Date, Date and time, Link, Department selection, Related records, Blank space, Field group, Record number, Created datetime, and Updated datetime. The main form area has sections for 'Lead Title' and 'Sales Representative', followed by a 'Contact Info' section with fields for Company Name, Website, Contact Name, Job Title, Email, and Telephone Number. At the bottom, there's a table with columns 'Product Name', 'Product ID', 'Unit Price', and 'Quantity'.

Apps are easy to **create** using a **drag-and-drop** interface with no coding needed.

Apps are extensively **customizable** with client-side **JavaScript**.

Everyone Contributes!

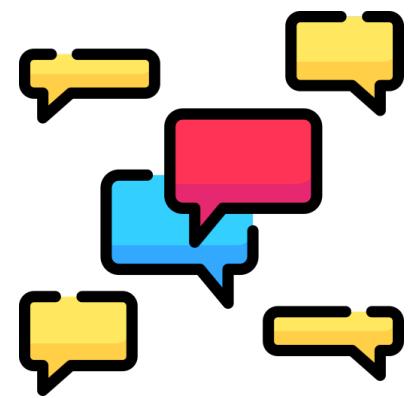
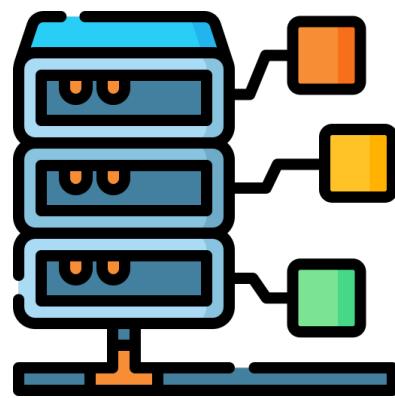
As a **no-code & low-code platform**, Kintone supports non-coders with visual programming UI while enabling sophisticated customization



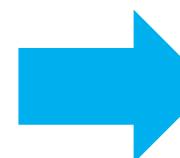
Fulfill the Promise of *Groupware*

Share meaningful insights about the data that become operationalized quickly.

Data + Communication



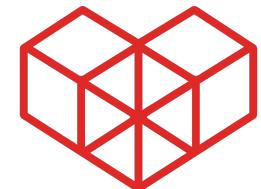
Insight



Action



How Developers Contribute

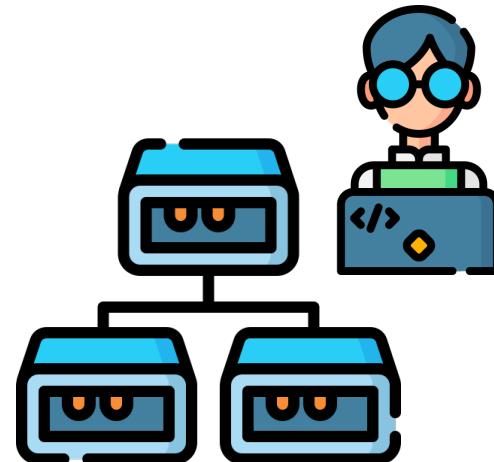


kintone
developer program

How Developers Contribute

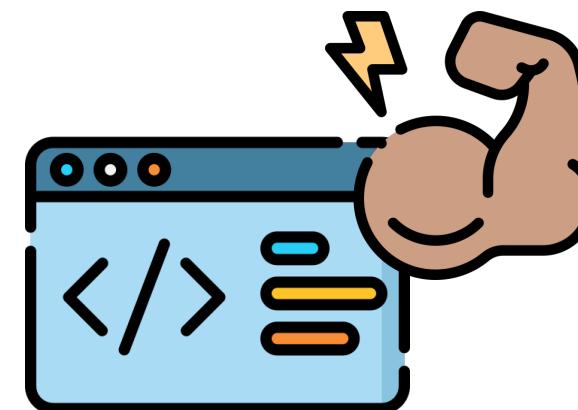
Command Center

- Create a custom look & feel
- Integrate with 3rd party web applications to exchange data



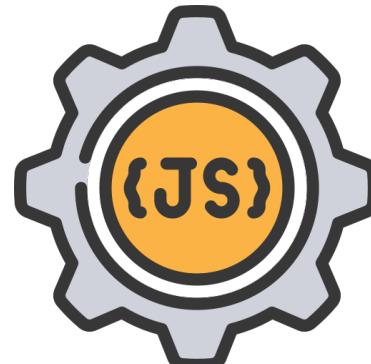
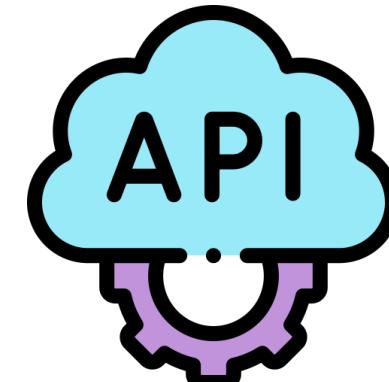
Enhancements

- Develop JavaScript customizations
- Build & share extensions



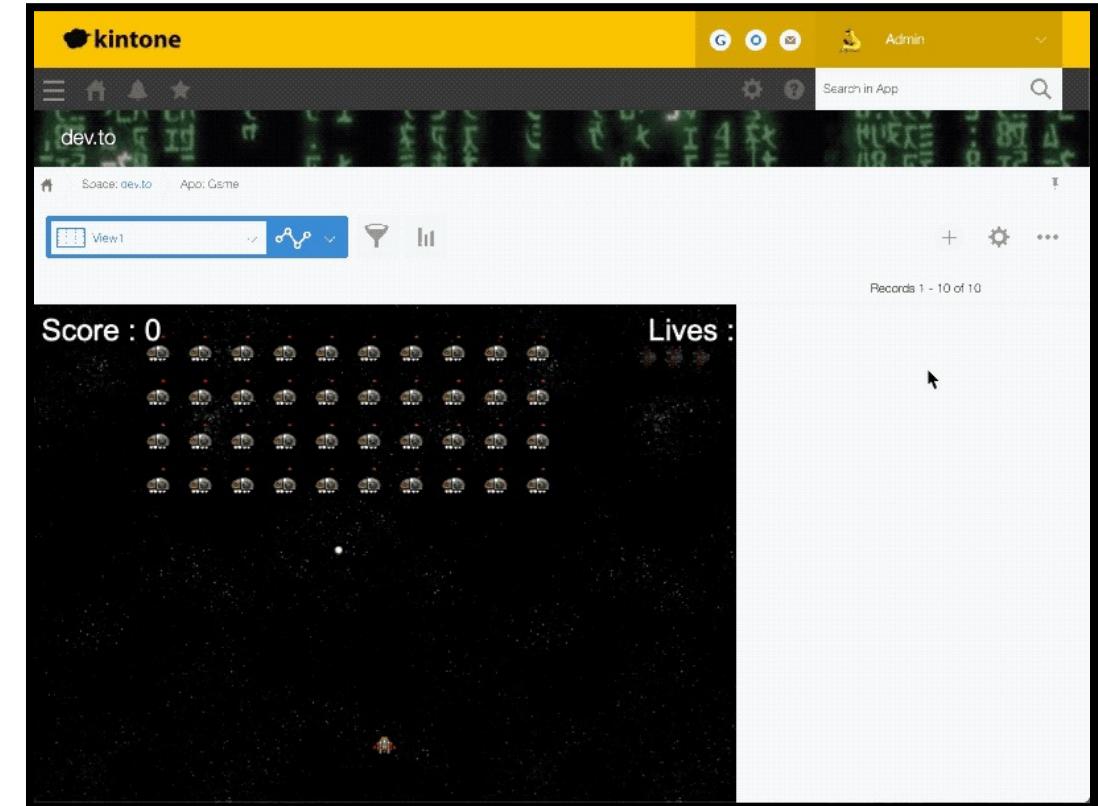
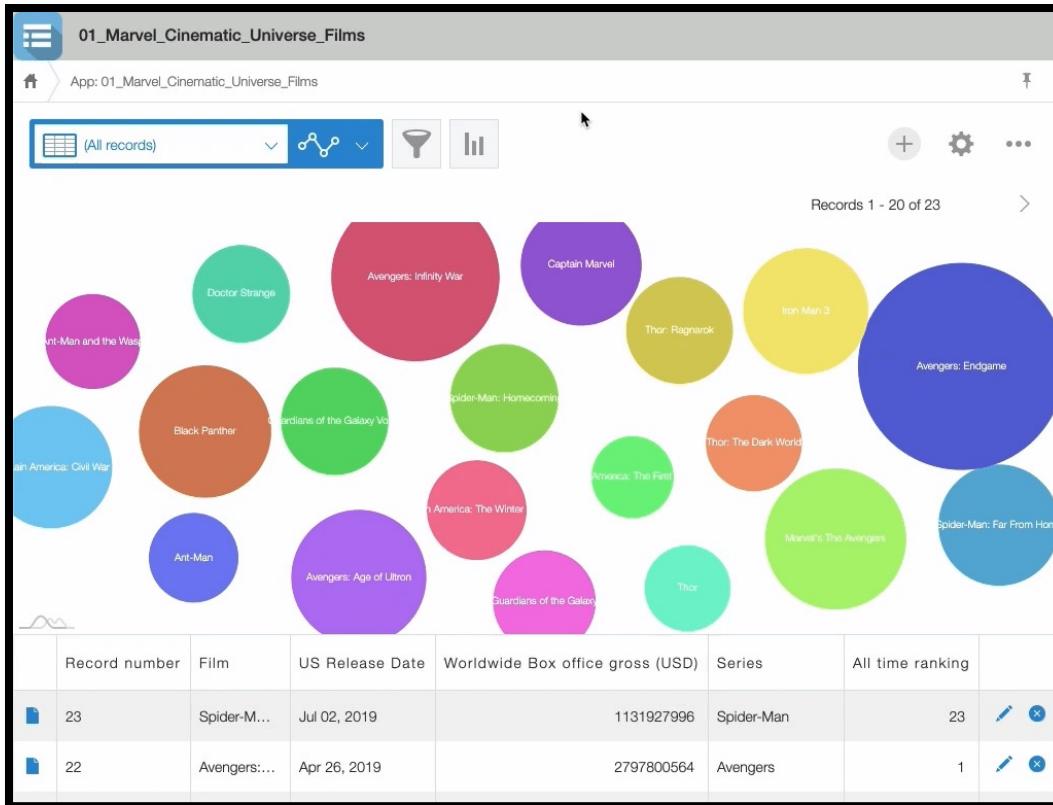
Tools Inside Kintone

- JavaScript APIs
- REST APIs
- API Tokens
- Webhook
- Plugins
- JavaScript Customizations
- CSS & HTML Customizations
- Precise Permission Controls



Create a Custom Look and Feel

Display data the way you want with HTML, JS, and CSS



Kintone For Self Learning



Keep learning new
JavaScript tricks!

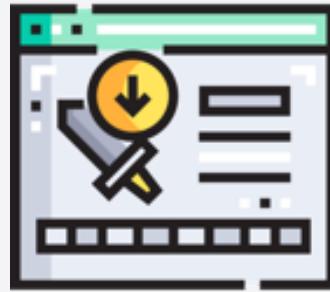


Contribute your
learnings to tech
blogs



Share your
projects with your
community!

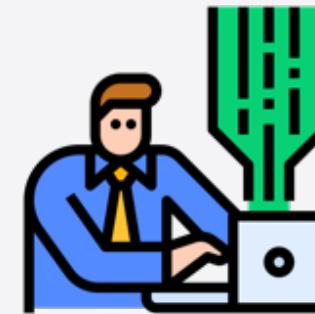
Kintone For Creating Revenue



Create & sell
Kintone
extensions



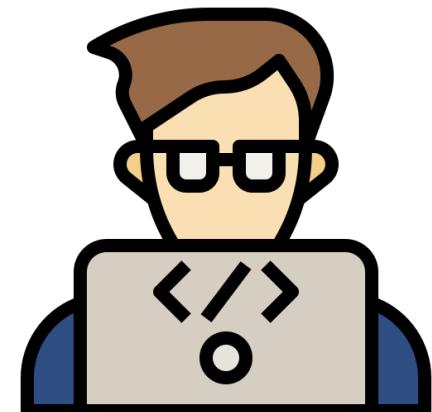
Consult with firms
on achieving
business goals



Develop Kintone
customizations for
customers

Time to Explore the Code

1. Connect Your Kintone Subdomain
2. Follow the Existing Behavior
3. Learn How React Works Here

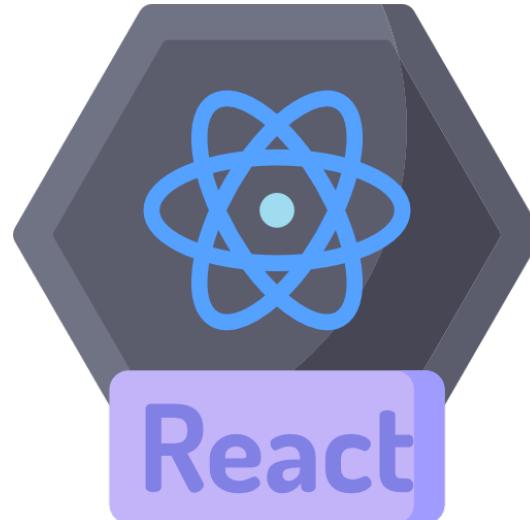


useState & useEffect

What Are They?



Using useState & useEffect Hooks



Hooks

Let's use useState & useEffect Hooks to handle the REST API calls in React.

```
1 import React, { useState, useEffect } from 'react';
```

Using useState & useEffect Hooks

useState hooks allow us to use special "state" variables that we can utilize to render into the React UI.

```
const [state, setState] = useState(initialState);
```

Name of your state

Function used to change
the state's value

Initial value of the state

Using useState & useEffect Hooks

[useEffect hooks](#) allow us to run functions after rendering has finished.

We'll use this to run a REST API call and update the state variable, which will then cause React to *re-render* the UI.

Let's Travel to the Backend

To server.js We Go!



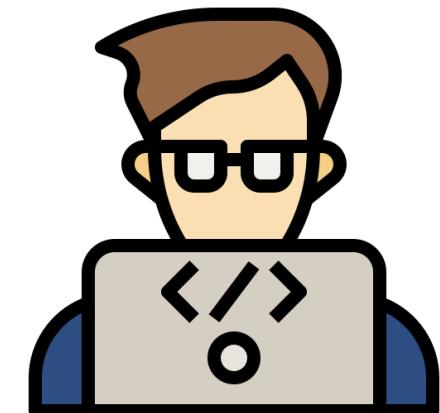
Quick 10-min Break

Coming up next:

Live Coding POST Request Component



Back to the Live Coding!



Wrap Up

1 Explored React App

- Cloned & configured a React project for the **frontend**
- Went through the key files that make it work

2 Learned about useState & useEffect

- Addressed the issue with **async rendering** in React
- Used **useState** and **useEffect** Hooks to have async code in React

3 Configured Express Server

- Used a Express server project for the **backend**
- Avoided **CORS errors** by making REST API calls from the server

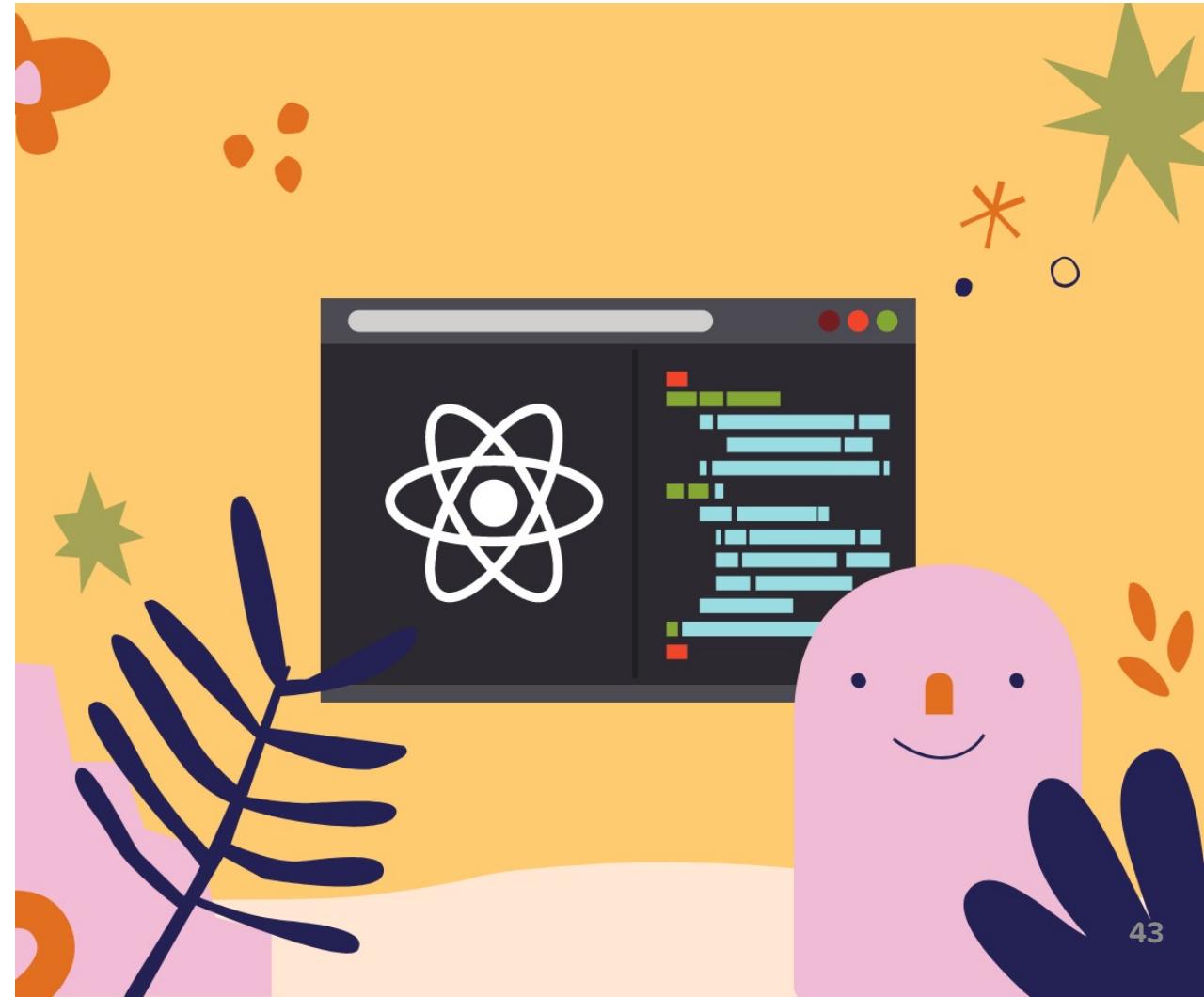
4 Added the Input Form and POST API Request

- Created a **component** to append a form
- Routed POST API calls in Express server to add data to a **web database**

React & REST API Article Series

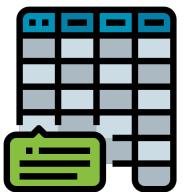
1. How to render responses
2. How to overcome CORS errors
3. How to get data from a Web Database

bit.ly/react-rest-devto

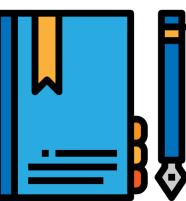
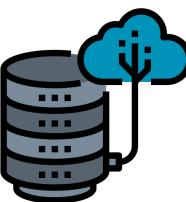
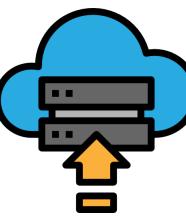


Next Steps

What are some next steps you can take?

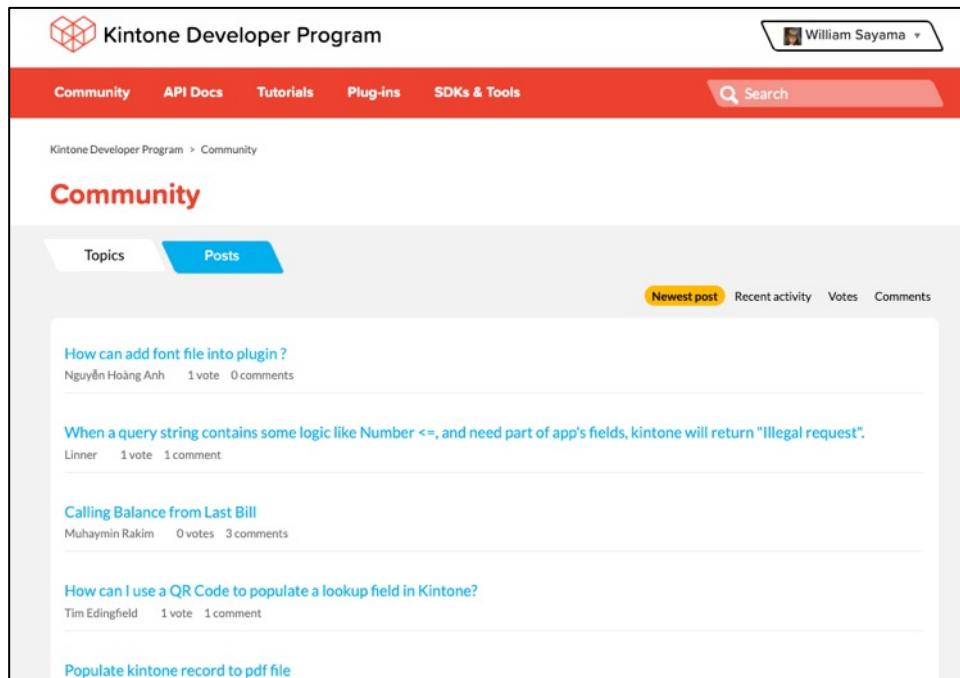


- Handle the response so it renders as tables
- Challenge making POST requests to add data into Kintone
- Try calling a public API from this [great list](#)
- Deploy your App somewhere like [Heroku](#) so others can see it
- Share your experience on dev.to!



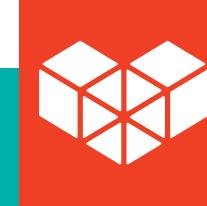
Where Can I Get Help?

If you're stuck, share your code on the Kintone Developer Community forum or on Stack Overflow!



The screenshot shows the Kintone Developer Program Community forum. At the top, there's a navigation bar with links for Community, API Docs, Tutorials, Plug-ins, and SDKs & Tools. A search bar is also present. The main content area is titled "Community" and shows a list of posts. The first post is titled "How can add font file into plugin?", made by Nguyễn Hoàng Anh, with 1 vote and 0 comments. The second post is titled "When a query string contains some logic like Number <=, and need part of app's fields, kintone will return "Illegal request".", made by Liner, with 1 vote and 1 comment. The third post is titled "Calling Balance from Last Bill", made by Muhammin Rakim, with 0 votes and 3 comments. The fourth post is titled "How can I use a QR Code to populate a lookup field in Kintone?", made by Tim Edingfield, with 1 vote and 1 comment. The fifth post is titled "Populate kintone record to pdf file.", which is partially visible at the bottom.





Any
Questions?

developer.kintone.io

Thank You!



Thank You to Our Community Partners!



HackBuddy by JavaScriptLA

Join Our Future Workshops!



We are cooking up **new content**
for our **upcoming workshops!**



Join our Meetup to not miss out!

bit.ly/KDP_Events



Workshop Recording on YouTube

This workshop's recording will be posted on
our YouTube Channel!

Our past workshops are posted as well:

Charts: Bubble Cloud, Word Cloud

Introductions: REST API, JS Promise



bit.ly/KDP_Video

Thank You for Your Participation!

**Fill out our quick survey for a
chance to win a
\$25 Amazon gift card!**



bit.ly/KDP_Q

