

# Dynamic Function Dispatching

This demo addresses a need to dynamically call a JavaScript function by a string name.

Approaches using `Eval` or `Function` are not allowed.

Instead, we use a JavaScript object to map a string key to a function name in a factory pattern. Here is `functionFactory.js` :

```
import functionOne from './dynamic/functionOne';
import functionTwo from './dynamic/functionTwo';
import functionThree from './dynamic/functionThree';

const dispatchFunction = (functionName, param) => {
  // To add a function: add its import above; then add a line for its name here:
  const functionMap = {
    functionOne,
    functionTwo,
    functionThree,
  };
  const fn = functionMap[functionName];
  return fn ? fn(param) : `Rats! ${functionName} not registered`;
};

export function functionFactory(code, param) {
  return dispatchFunction(`function${code}`, param);
}
```

A caller would invoke a function by a `code` property string like this:

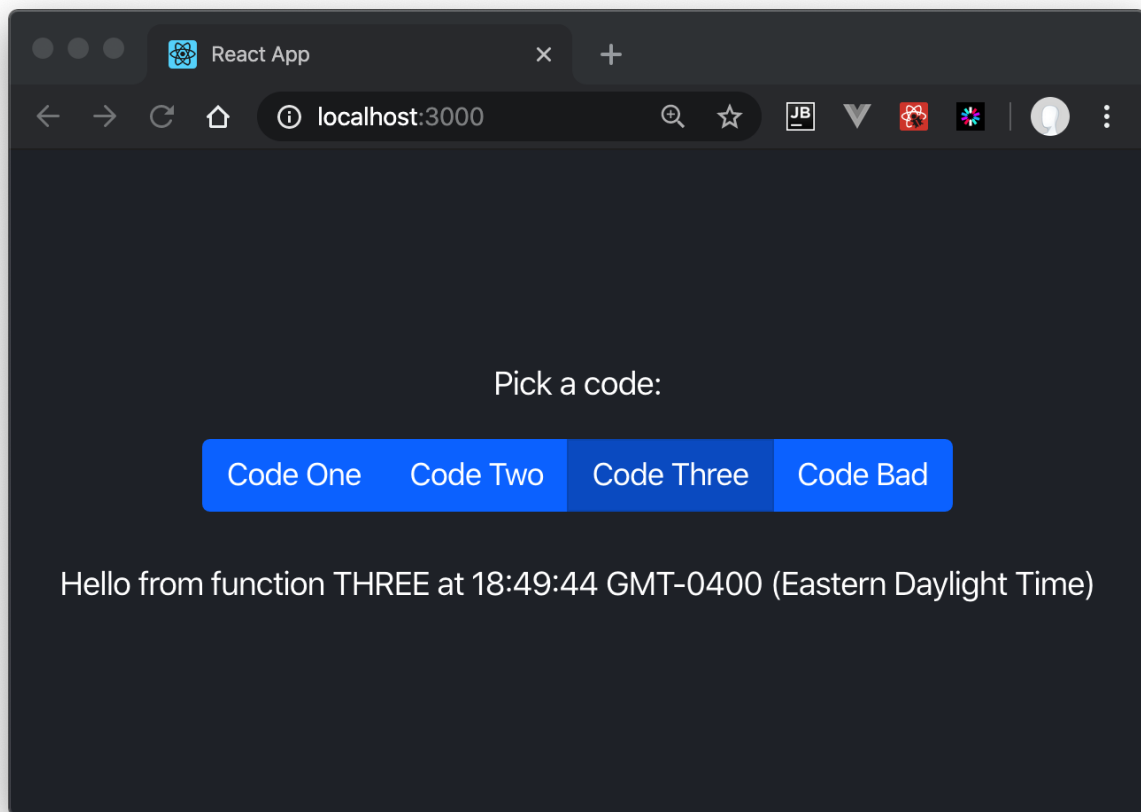
```
{ functionFactory(code, new Date().toTimeString()) }
```

The param property is our single parameter, but we could have coded for more parameters.

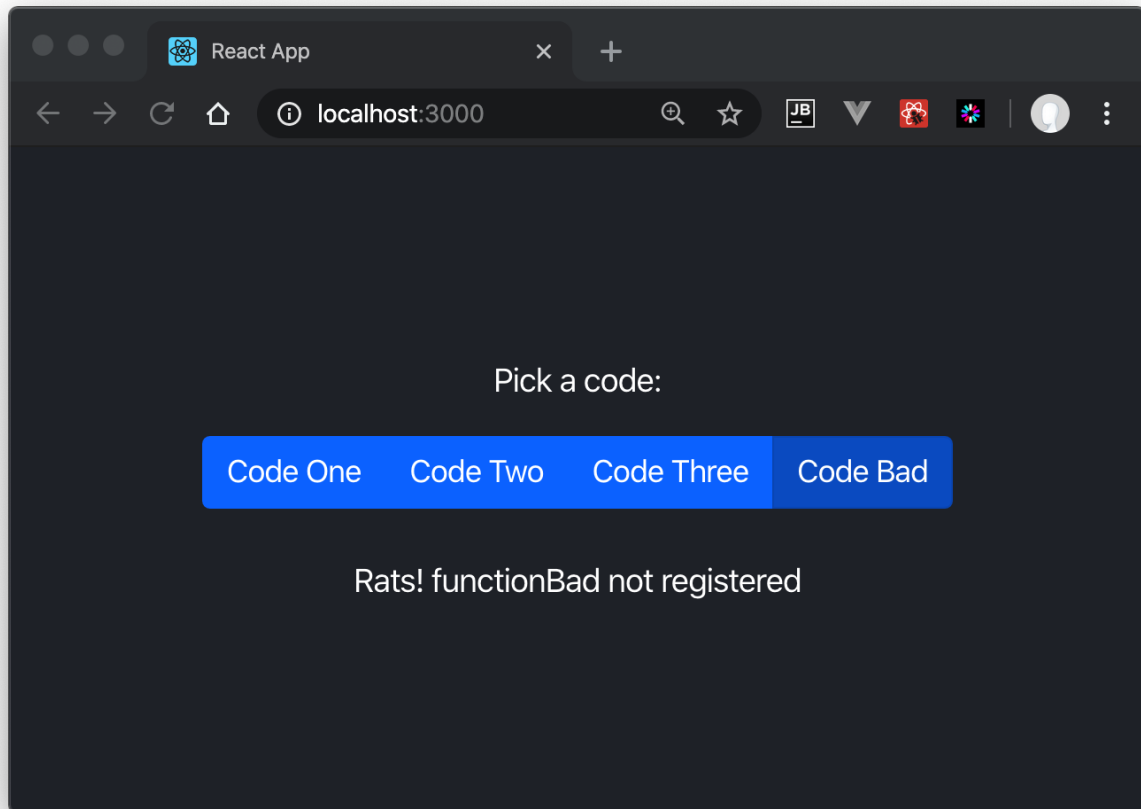
Here is one demo dynamic function:

```
export default function functionThree(time) {
  return `Hello from function THREE at ${time}`;
}
```

The demo UI chooses the dispatch code property via toggle buttons.



The factory handles unregistered functions.



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## Instructions

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This project was bootstrapped with [Create React App](#).

## Available Scripts

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In the project directory, you can run:

**yarn start**

Runs the app in the development mode.

Open <http://localhost:3000> to view it in the browser.

The page will reload if you make edits.

You will also see any lint errors in the console.

**yarn test**

Launches the test runner in the interactive watch mode.

See the section about [running tests](#) for more information.

## **yarn build**

Builds the app for production to the `build` folder.

It correctly bundles React in production mode and optimizes the build for the best performance.

The build is minified and the filenames include the hashes.

Your app is ready to be deployed!

See the section about [deployment](#) for more information.