

## MANUAL DE USUARIO - CRUD CON VITE Y JS

1. Operaciones CRUD
  1. Create
  2. Read
  3. Update
  4. Delete
2. Sin frameworks o librerías externas
3. Modals
4. Mappers
5. Clases
6. Utilizar conversiones
7. Código limpio
8. Comprender las funcionalidades básicas de un Restful API de un backend
9. Montar un backend de pruebas
10. Generar y utilizar un store central para nuestro estado de la aplicación
11. Documentación de funciones

Esta sección aplica todo lo aprendido de javascript, que va desde documentación, generación de elementos, async-await, store, fetch y mucho más.

## Preparación de nuestro backend

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Versión 10.0.19044.3086]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\ASUS>f:

F:\>cd F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript
F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript>
```

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Versión 10.0.19044.3086]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\ASUS>f:

F:\>cd F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript
F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript>npm create vite@latest
? Project name: » crud-app
```

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Versión 10.0.19044.3086]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\ASUS>f:

F:\>cd F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript
F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript>npm create vite@latest
✓ Project name: ... crud-app
✓ Select a framework: » Vanilla
✓ Select a variant: » JavaScript
Scaffolding project in F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\crud-app...

Done. Now run:

  cd crud-app
  npm install
  npm run dev

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript>
```

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Versión 10.0.19044.3086]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\ASUS>f:

F:\>cd F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript>npm create vite@latest
✓ Project name: ... crud-app
✓ Select a framework: » Vanilla
✓ Select a variant: » JavaScript

Scaffolding project in F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\crud-app...

Done. Now run:

  cd crud-app
  npm install
  npm run dev

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript>cd 08-crud-app/
```

```
C:\Users\ASUS>f:

F:\>cd F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript>npm create vite@latest
✓ Project name: ... crud-app
✓ Select a framework: » Vanilla
✓ Select a variant: » JavaScript

Scaffolding project in F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\crud-app...

Done. Now run:

  cd crud-app
  npm install
  npm run dev

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript>cd 08-crud-app/

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>npm i

added 8 packages, and audited 9 packages in 5s

3 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>
```

```
C:\Windows\system32\cmd.exe
F:\>cd F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript>npm create vite@latest
✓ Project name: ... crud-app
✓ Select a framework: » Vanilla
✓ Select a variant: » JavaScript

Scaffolding project in F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\crud-app...

Done. Now run:

  cd crud-app
  npm install
  npm run dev

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript>cd 08-crud-app/

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>npm i

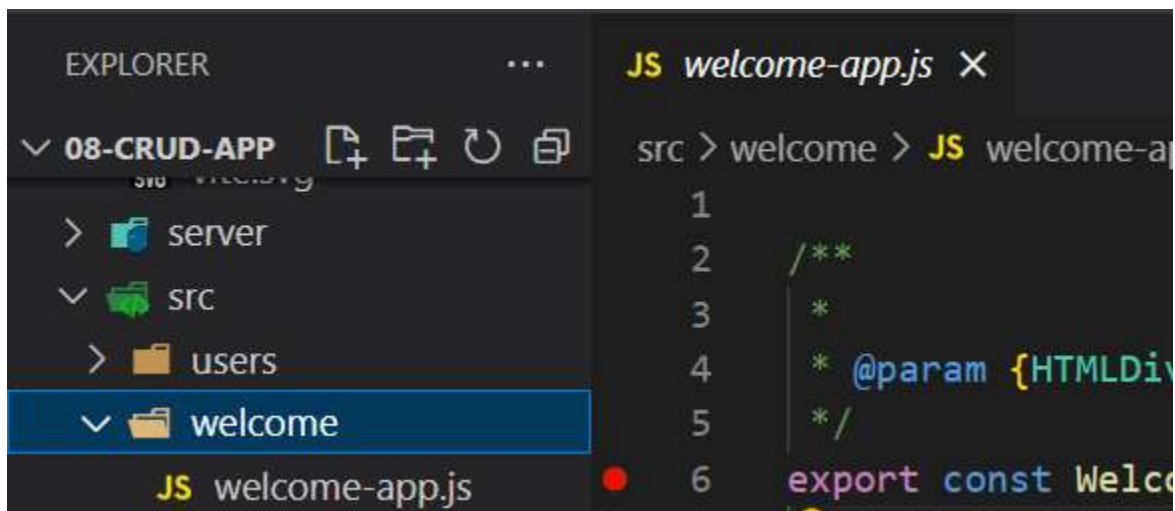
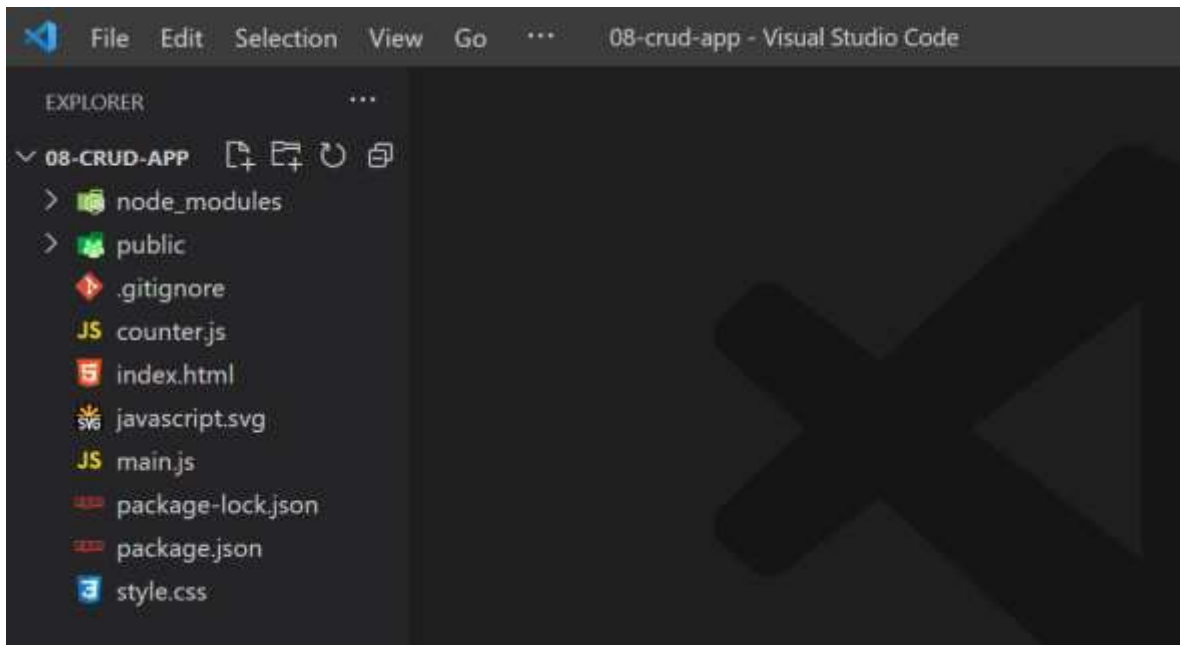
added 8 packages, and audited 9 packages in 5s

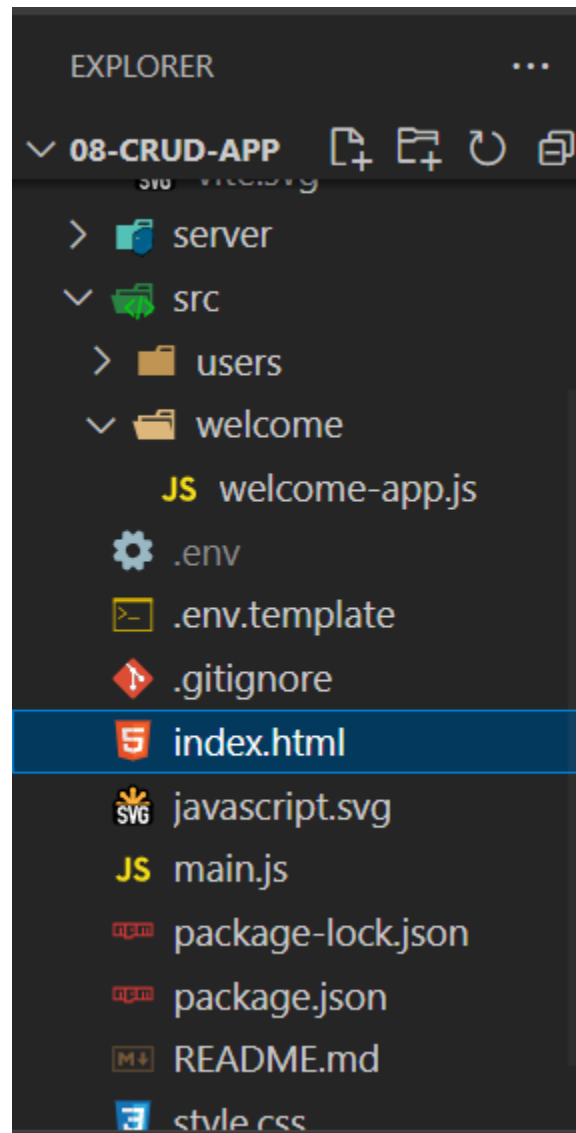
3 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>code .

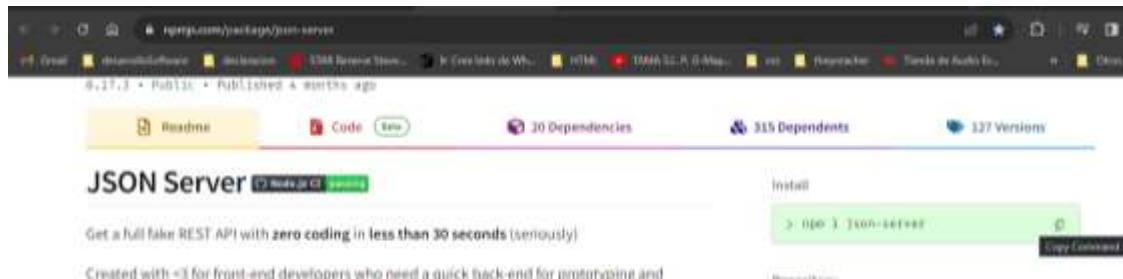
F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>
```





```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <link rel="icon" type="image/svg+xml" href="/vite.svg" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Crud App</title>
  </head>
  <body>
    <div id="app"></div>
    <script type="module" src="/main.js"></script>
  </body>
</html>
```

Ir al siguiente enlace: <https://www.npmjs.com/package/json-server>



```
C:\Windows\system32\cmd.exe
3 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>code .

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>npm i json-server --save-dev
```

```
C:\Windows\system32\cmd.exe
3 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>code .

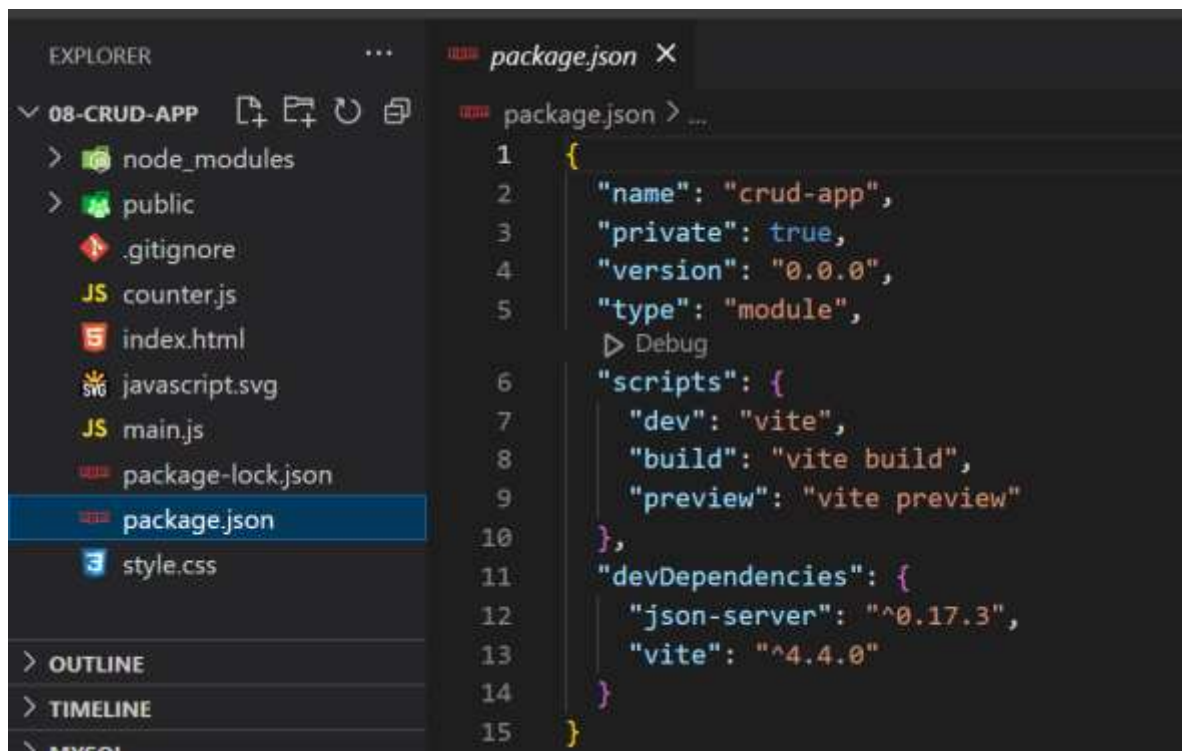
F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>npm i json-server --save-dev

added 315 packages, and audited 324 packages in 18s

95 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

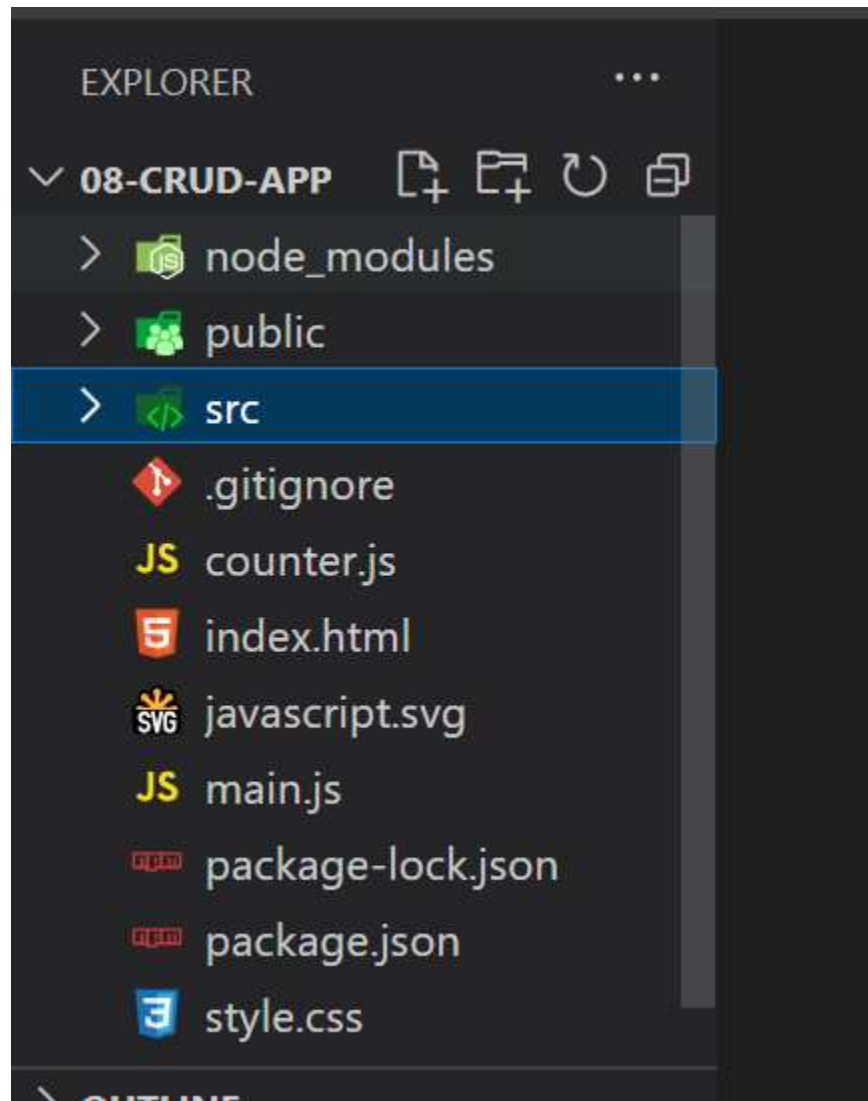
F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>
```

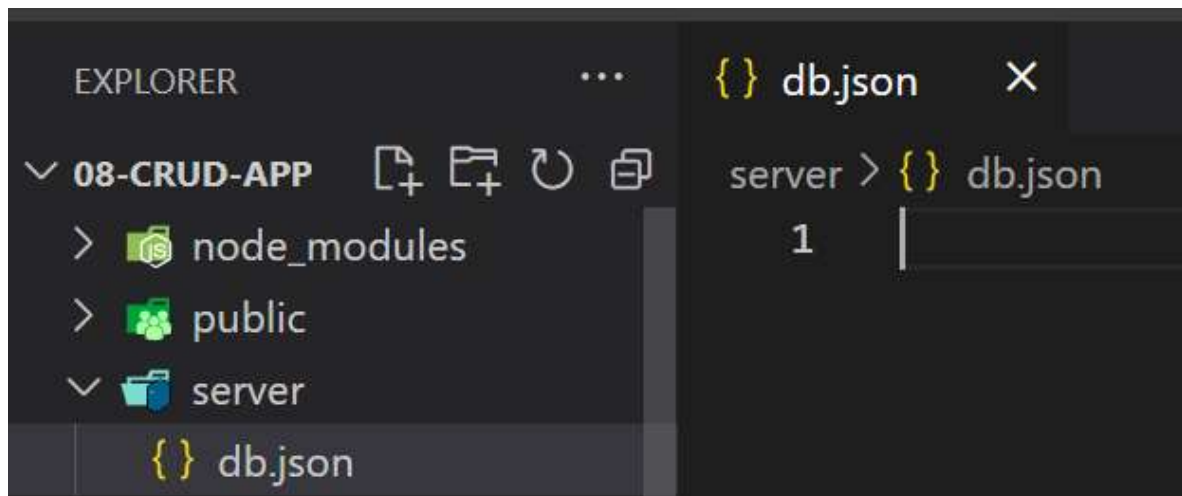
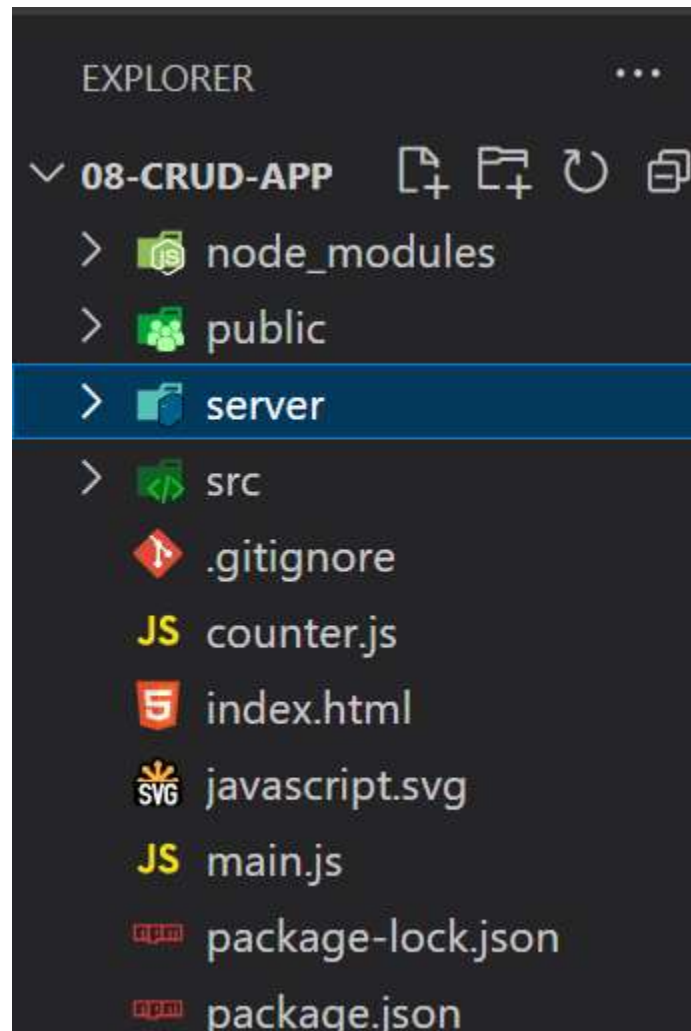


The image shows a screenshot of the Visual Studio Code (VS Code) editor. On the left, the 'EXPLORER' sidebar displays the file structure of a project named '08-CRUD-APP'. The files listed are: 'node\_modules', 'public', '.gitignore', 'counter.js', 'index.html', 'javascript.svg', 'main.js', 'package-lock.json', 'package.json' (which is selected and highlighted in blue), and 'style.css'. Below the file list are sections for 'OUTLINE', 'TIMELINE', and 'MYSQL'. The main editor area on the right shows the content of the selected 'package.json' file. The JSON configuration is as follows:

```
1 {
2   "name": "crud-app",
3   "private": true,
4   "version": "0.0.0",
5   "type": "module",
6   "scripts": {
7     "dev": "vite",
8     "build": "vite build",
9     "preview": "vite preview"
10  },
11  "devDependencies": {
12    "json-server": "^0.17.3",
13    "vite": "^4.4.0"
14  }
15 }
```







Json Data - Para nuestro backend de pruebas

```
1 {
2   "users": [
3     {
4       "id": 1,
5       "isActive": false,
6       "balance": 1397.32,
7       "avatar": "http://placeholder.it/32x32",
8       "first_name": "Ryan",
9       "last_name": "Kent",
10      "gender": "male"
11    },
12    {
13      "id": 2,
14      "isActive": true,
15      "balance": 1120.82,
16      "avatar": "http://placeholder.it/32x32",
17      "first_name": "Francine",
18      "last_name": "Ingram",
19      "gender": "female"
20    }
21  ]
22 }
```

```
{
  "users": [
    {
      "id": 1,
      "isActive": false,
      "balance": 1397.32,
      "avatar": "http://placeholder.it/32x32",
      "first_name": "Ryan",
      "last_name": "Kent",
      "gender": "male"
    },
    {
      "id": 2,
      "isActive": true,
      "balance": 1120.82,
      "avatar": "http://placeholder.it/32x32",
      "first_name": "Francine",
      "last_name": "Ingram",
      "gender": "female"
    },
    {
      "id": 3,
      "isActive": true,
      "balance": 2010.88,
      "avatar": "http://placeholder.it/32x32",
      "first_name": "Lee",
      "last_name": "Howe",
      "gender": "male"
    }
  ],
  {
```

```
    "id": 4,  
    "isActive": false,  
    "balance": 1601.54,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Henry",  
    "last_name": "Hunt",  
    "gender": "male"  
  },  
  {  
    "id": 5,  
    "isActive": false,  
    "balance": 1455.08,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Mia",  
    "last_name": "Wade",  
    "gender": "female"  
  },  
  {  
    "id": 6,  
    "isActive": false,  
    "balance": 2950.3,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Tyler",  
    "last_name": "Rocha",  
    "gender": "male"  
  },  
  {  
    "id": 7,  
    "isActive": false,  
    "balance": 1985.59,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Harris",  
    "last_name": "Francis",  
    "gender": "male"  
  },  
  {  
    "id": 8,  
    "isActive": false,  
    "balance": 2143.38,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Davis",  
    "last_name": "Bean",  
    "gender": "male"  
  },  
  {
```

```

    "id": 9,
    "isActive": false,
    "balance": 3586.36,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Sheri",
    "last_name": "Cox",
    "gender": "female"
  },
  {
    "id": 10,
    "isActive": false,
    "balance": 3653.26,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Sweeney",
    "last_name": "Mcintyre",
    "gender": "male"
  },
  {
    "id": 11,
    "isActive": true,
    "balance": 2533.26,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Fields",
    "last_name": "Harrington",
    "gender": "male"
  },
  {
    "id": 12,
    "isActive": false,
    "balance": 1905.22,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Reeves",
    "last_name": "Vasquez",
    "gender": "male"
  },
  {
    "id": 13,
    "isActive": false,
    "balance": 3990.01,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Amy",
    "last_name": "Leonard",
    "gender": "female"
  },
  {

```

```

    "id": 14,
    "isActive": false,
    "balance": 2449.31,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Carissa",
    "last_name": "Floyd",
    "gender": "female"
  },
  {
    "id": 15,
    "isActive": true,
    "balance": 1279.21,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Baird",
    "last_name": "Atkinson",
    "gender": "male"
  },
  {
    "id": 16,
    "isActive": false,
    "balance": 3319.73,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Cooper",
    "last_name": "Lang",
    "gender": "male"
  },
  {
    "id": 17,
    "isActive": false,
    "balance": 3194.49,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Lou",
    "last_name": "Fischer",
    "gender": "female"
  },
  {
    "id": 18,
    "isActive": true,
    "balance": 3769.4,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Burke",
    "last_name": "Giles",
    "gender": "male"
  },
  {

```

```
"id": 19,
"isActive": false,
"balance": 3848.76,
"avatar": "http://placeholder.it/32x32",
"first_name": "Sybil",
"last_name": "Mann",
"gender": "female"
},
{
  "id": 20,
  "isActive": false,
  "balance": 1239.99,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Norris",
  "last_name": "Conway",
  "gender": "male"
},
{
  "id": 21,
  "isActive": true,
  "balance": 3811.6,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Hull",
  "last_name": "Love",
  "gender": "male"
},
{
  "id": 22,
  "isActive": false,
  "balance": 1463.99,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Frankie",
  "last_name": "Hensley",
  "gender": "female"
},
{
  "id": 23,
  "isActive": false,
  "balance": 2028.55,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Padilla",
  "last_name": "Kane",
  "gender": "male"
},
{
```

```
"id": 24,
"isActive": true,
"balance": 2439.45,
"avatar": "http://placeholder.it/32x32",
"first_name": "Vazquez",
"last_name": "Burgess",
"gender": "male"
},
{
  "id": 25,
  "isActive": true,
  "balance": 1435.38,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Shields",
  "last_name": "Hudson",
  "gender": "male"
},
{
  "id": 26,
  "isActive": true,
  "balance": 3730.89,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Maureen",
  "last_name": "Bentley",
  "gender": "female"
},
{
  "id": 27,
  "isActive": true,
  "balance": 3793.75,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Nash",
  "last_name": "Hart",
  "gender": "male"
},
{
  "id": 28,
  "isActive": false,
  "balance": 1553.72,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Florine",
  "last_name": "Holt",
  "gender": "female"
},
{
```



```
    "id": 29,  
    "isActive": false,  
    "balance": 1196.96,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Lizzie",  
    "last_name": "Morin",  
    "gender": "female"  
  },  
  {  
    "id": 30,  
    "isActive": true,  
    "balance": 1000.5,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Wanda",  
    "last_name": "Harper",  
    "gender": "female"  
  },  
  {  
    "id": 31,  
    "isActive": false,  
    "balance": 2532.24,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Jo",  
    "last_name": "Boyle",  
    "gender": "female"  
  },  
  {  
    "id": 32,  
    "isActive": true,  
    "balance": 1074.93,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Ellen",  
    "last_name": "Brewer",  
    "gender": "female"  
  },  
  {  
    "id": 33,  
    "isActive": true,  
    "balance": 2264.44,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Kristie",  
    "last_name": "King",  
    "gender": "female"  
  },  
  {
```

```
    "id": 34,  
    "isActive": true,  
    "balance": 2934.03,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Ruby",  
    "last_name": "Yang",  
    "gender": "female"  
  },  
  {  
    "id": 35,  
    "isActive": false,  
    "balance": 3358.65,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Marcella",  
    "last_name": "Hodges",  
    "gender": "female"  
  },  
  {  
    "id": 36,  
    "isActive": false,  
    "balance": 2498.48,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Deann",  
    "last_name": "Rich",  
    "gender": "female"  
  },  
  {  
    "id": 37,  
    "isActive": true,  
    "balance": 3053.05,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Downs",  
    "last_name": "Yates",  
    "gender": "male"  
  },  
  {  
    "id": 38,  
    "isActive": true,  
    "balance": 3514.16,  
    "avatar": "http://placeholder.it/32x32",  
    "first_name": "Noemi",  
    "last_name": "Travis",  
    "gender": "female"  
  },  
  {
```

```
"id": 39,
"isActive": true,
"balance": 3815.99,
"avatar": "http://placeholder.it/32x32",
"first_name": "Shirley",
"last_name": "Carey",
"gender": "female"
},
{
  "id": 40,
  "isActive": true,
  "balance": 1577.63,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Harmon",
  "last_name": "Roy",
  "gender": "male"
},
{
  "id": 41,
  "isActive": true,
  "balance": 1996.04,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Stafford",
  "last_name": "Rios",
  "gender": "male"
},
{
  "id": 42,
  "isActive": false,
  "balance": 2402.28,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Maynard",
  "last_name": "Faulkner",
  "gender": "male"
},
{
  "id": 43,
  "isActive": false,
  "balance": 3185.14,
  "avatar": "http://placeholder.it/32x32",
  "first_name": "Felicia",
  "last_name": "Gamble",
  "gender": "female"
},
{
```



```

    "id": 49,
    "isActive": true,
    "balance": 2841.02,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Dianna",
    "last_name": "Bowman",
    "gender": "female"
  },
  {
    "id": 50,
    "isActive": true,
    "balance": 1174.43,
    "avatar": "http://placeholder.it/32x32",
    "first_name": "Mcbride",
    "last_name": "Woodward",
    "gender": "male"
  }
]
}

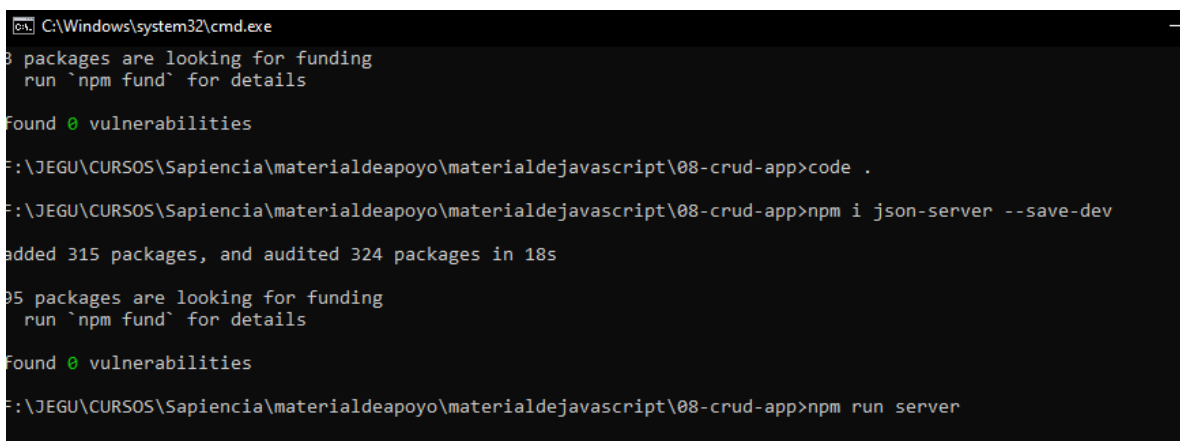
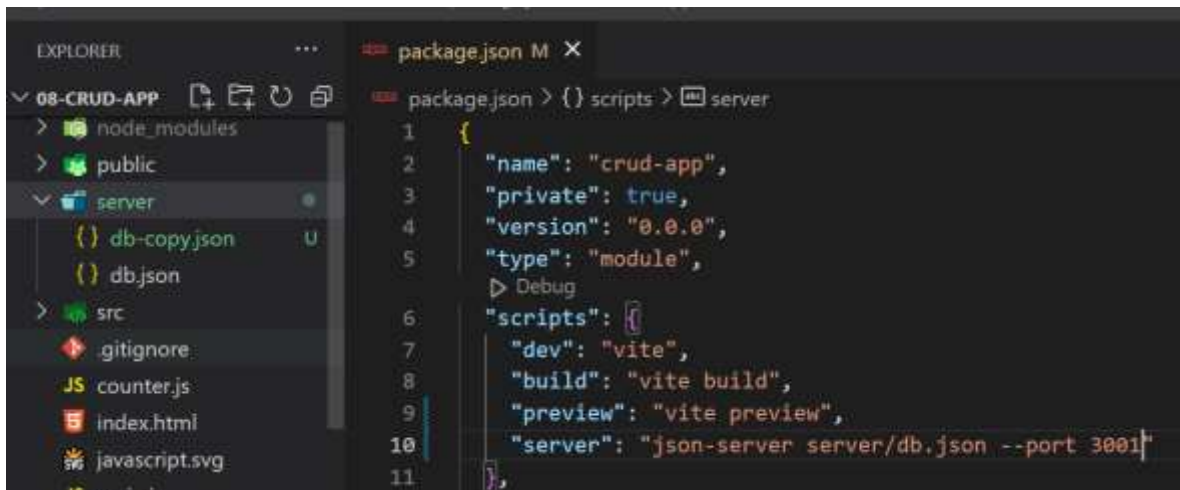
```

Abrir

```

1  {
2    "name": "crud-app",
3    "private": true,
4    "version": "0.0.0",
5    "type": "module",
6    "scripts": {
7      "dev": "vite",
8      "build": "vite build",
9      "preview": "vite preview"
10   },
11   "devDependencies": {
12     "json-server": "^0.17.3",
13     "vite": "^4.4.0"
14   }
15 }

```



```
C:\Windows\system32\cmd.exe
F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>code .
F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>npm i json-server --save-dev
added 315 packages, and audited 324 packages in 18s
95 packages are looking for funding
  run `npm fund` for details
found 0 vulnerabilities
F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>npm run server
> crud-app@0.0.0 server
> json-server server/db.json --port 3001

\{^_^}/ hi!

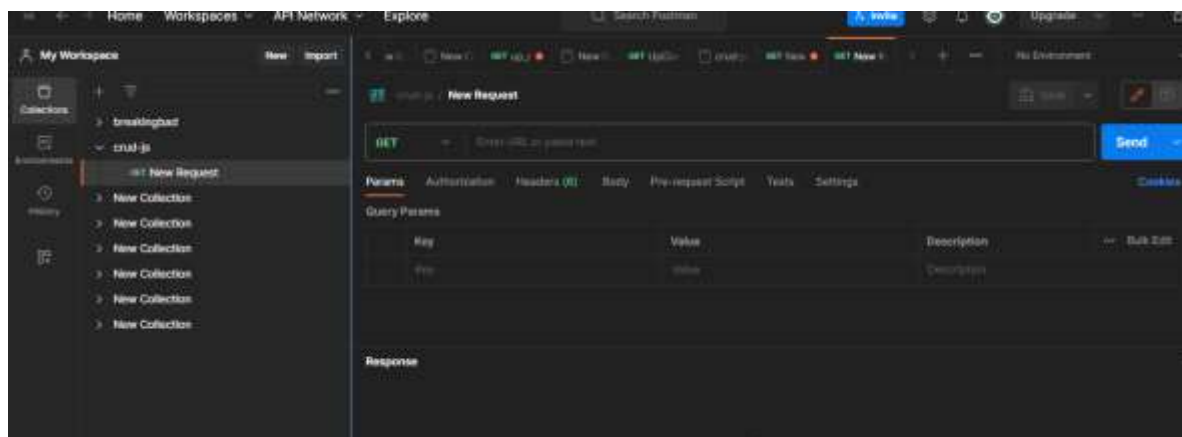
Loading server/db.json
Done

Resources
http://localhost:3001/users

Home
http://localhost:3001

Type s + enter at any time to create a snapshot of the database
```

Abrir postman



```
F:\JEGU\CURSOS\Sapiencia\materialdeapoyo\materialdejavascript\08-crud-app>npm run server  
crud-app@0.0.0 server  
json-server server/db.json --port 3001
```

\{^\_^}/ hi!

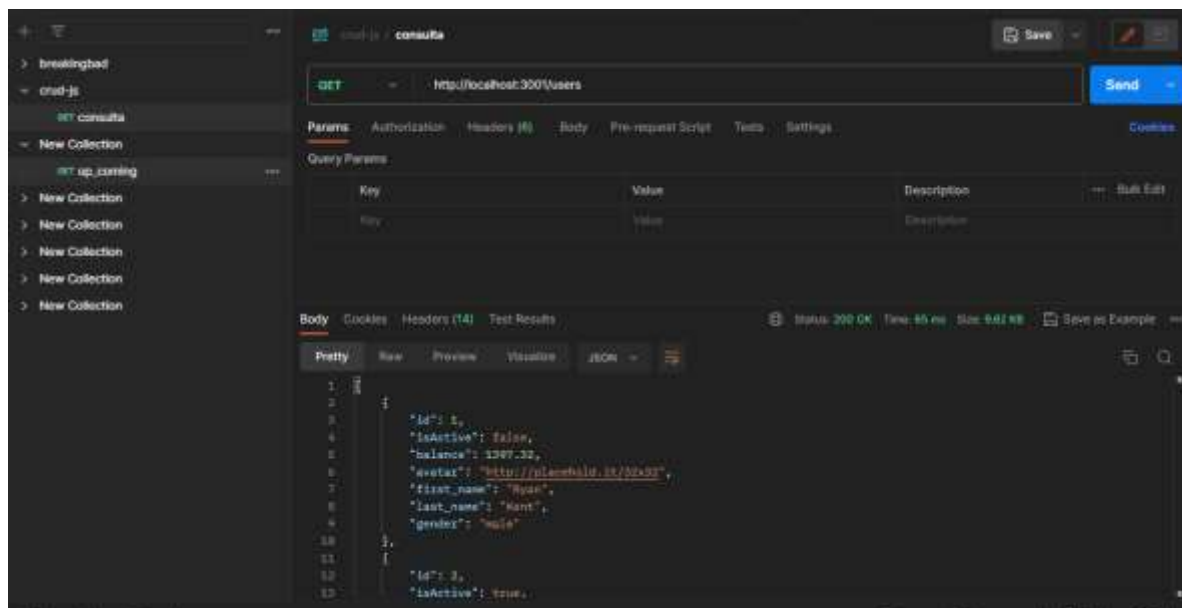
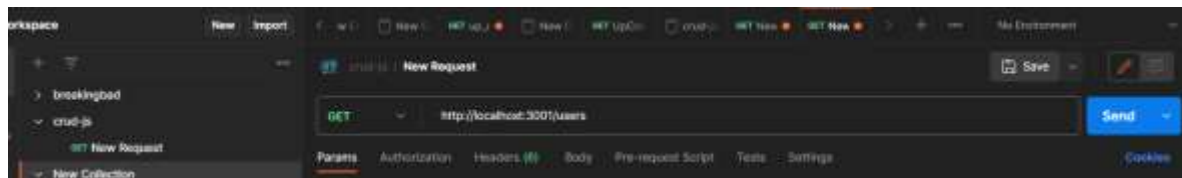
Loading server/db.json  
Done

Resources

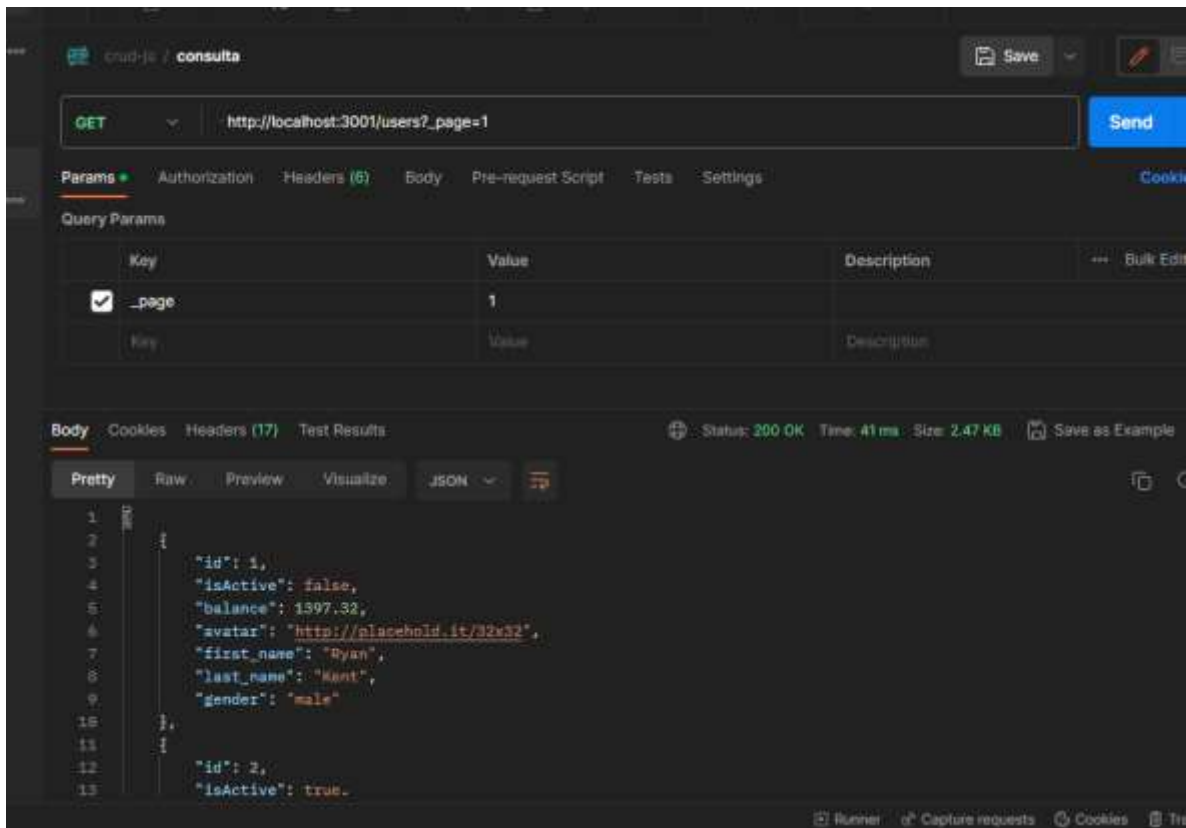
<http://localhost:3001/users>

Home

<http://localhost:3001>







## Store central de nuestra información

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

CO

```
vascript\08-crud-app> npm run dev
```

```
> crud-app@0.0.0 dev
```

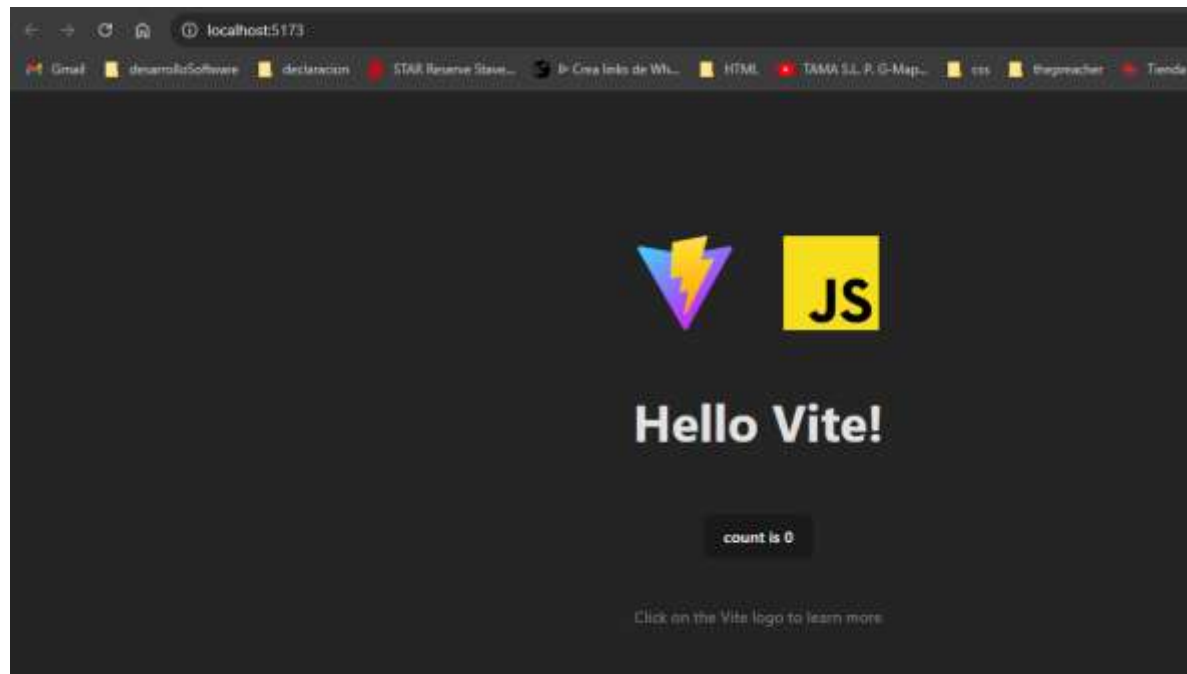
```
> vite
```

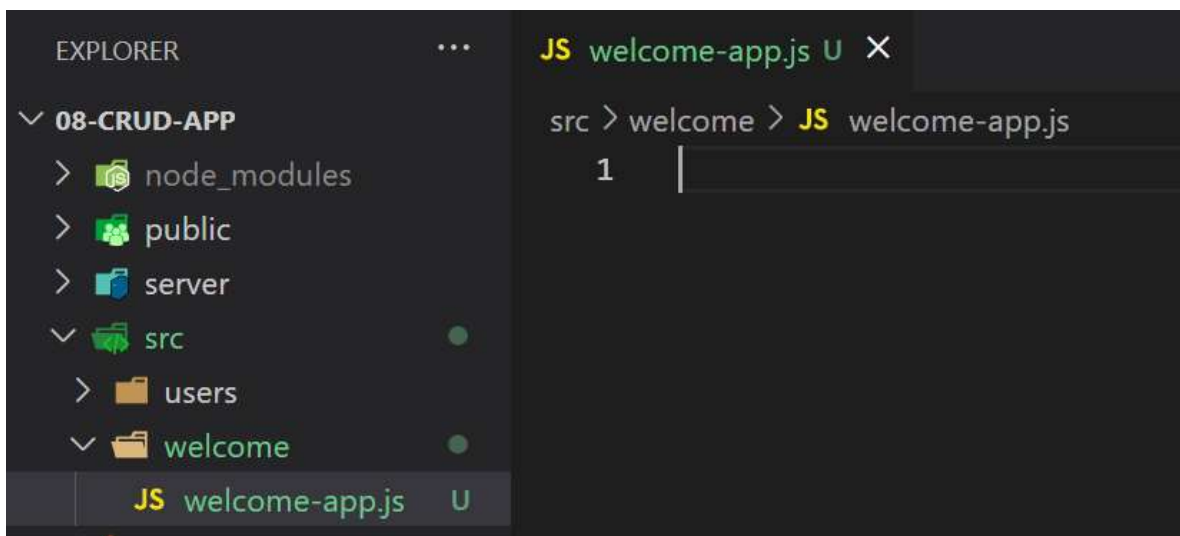
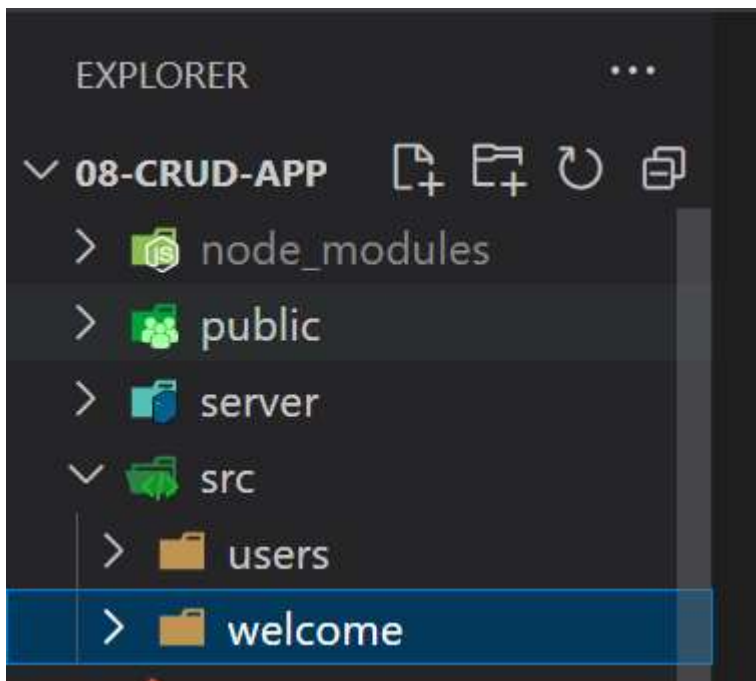
**VITE** v4.4.4 ready in 450 ms

→ **Local:** <http://localhost:5173/>

→ **Network:** use **--host** to expose

→ press **h** to show help





```
}
```

Abrir el main

```
import './style.css'
import javascriptLogo from './javascript.svg'
import viteLogo from '/vite.svg'
import { Welcomeapp } from './src/welcome/welcome-app';

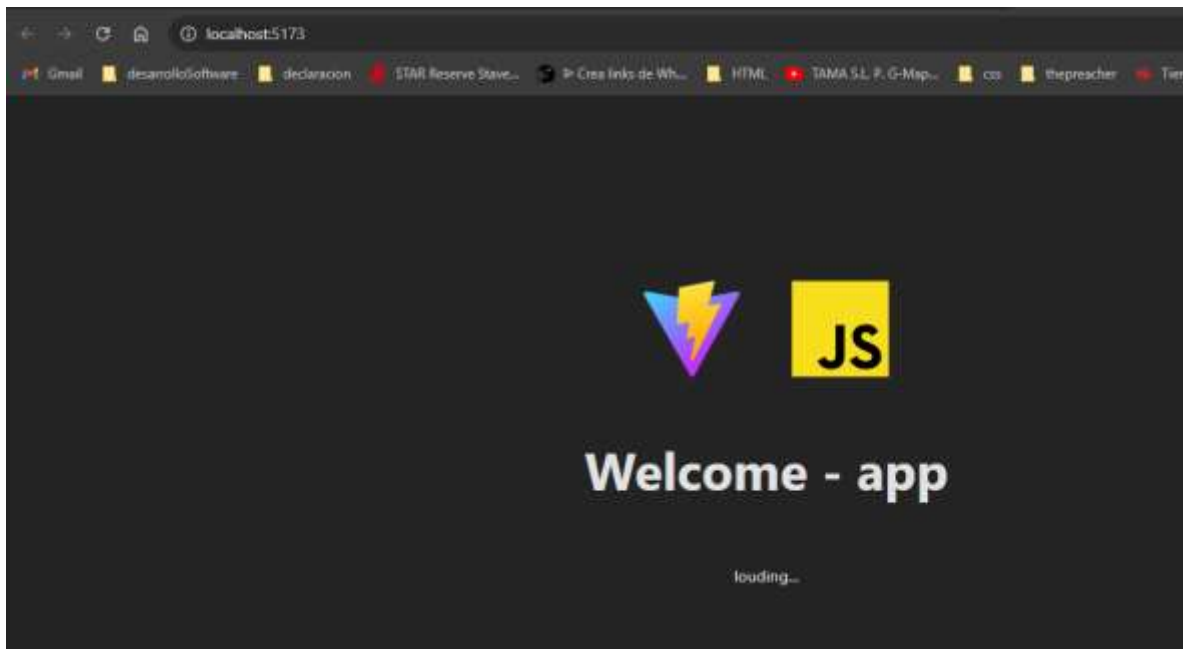
document.querySelector('#app').innerHTML = `
  <div>
    <a href="https://vitejs.dev" target="_blank">
      
    </a>
    <a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript"
target="_blank">
      
    </a>
    <h1 id="app-title">Hello Vite!</h1>
    <div class="card">

      </div>

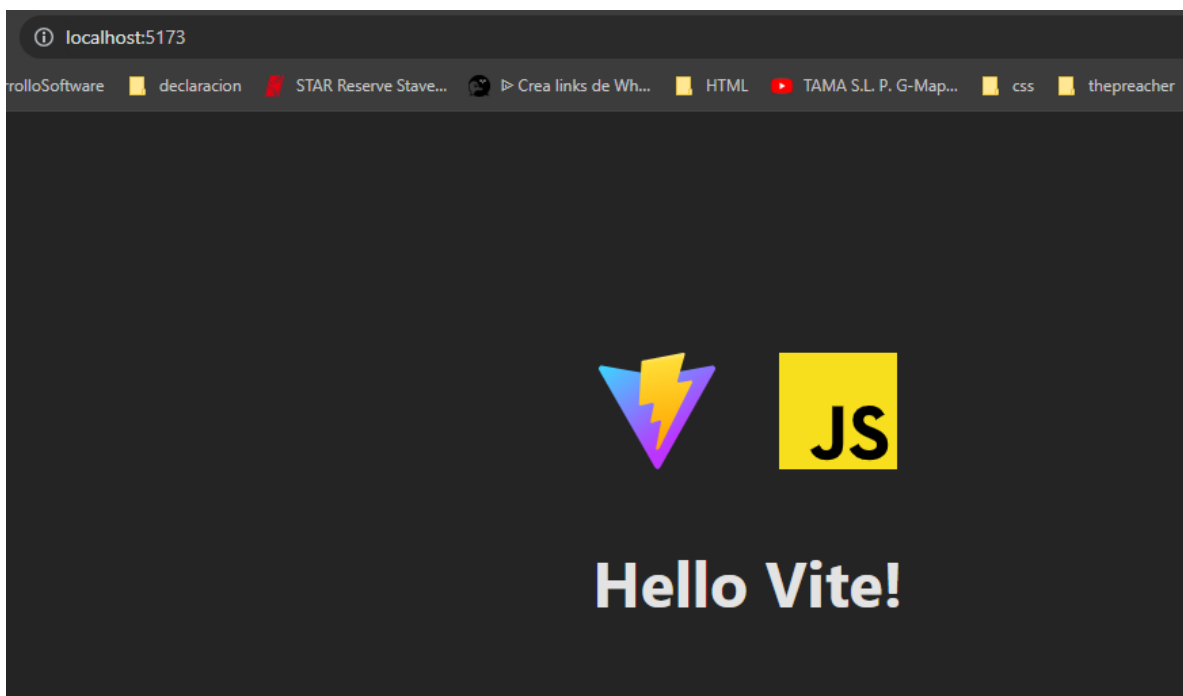
    </div>

  </div>
`;
const element = document.querySelector('.card');

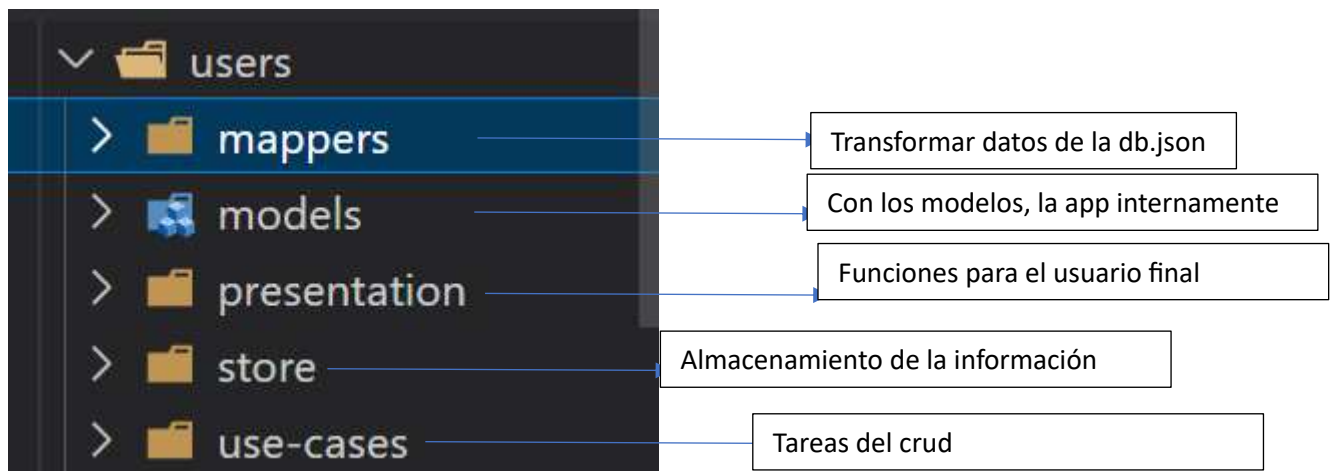
// Welcomeapp(element);
```



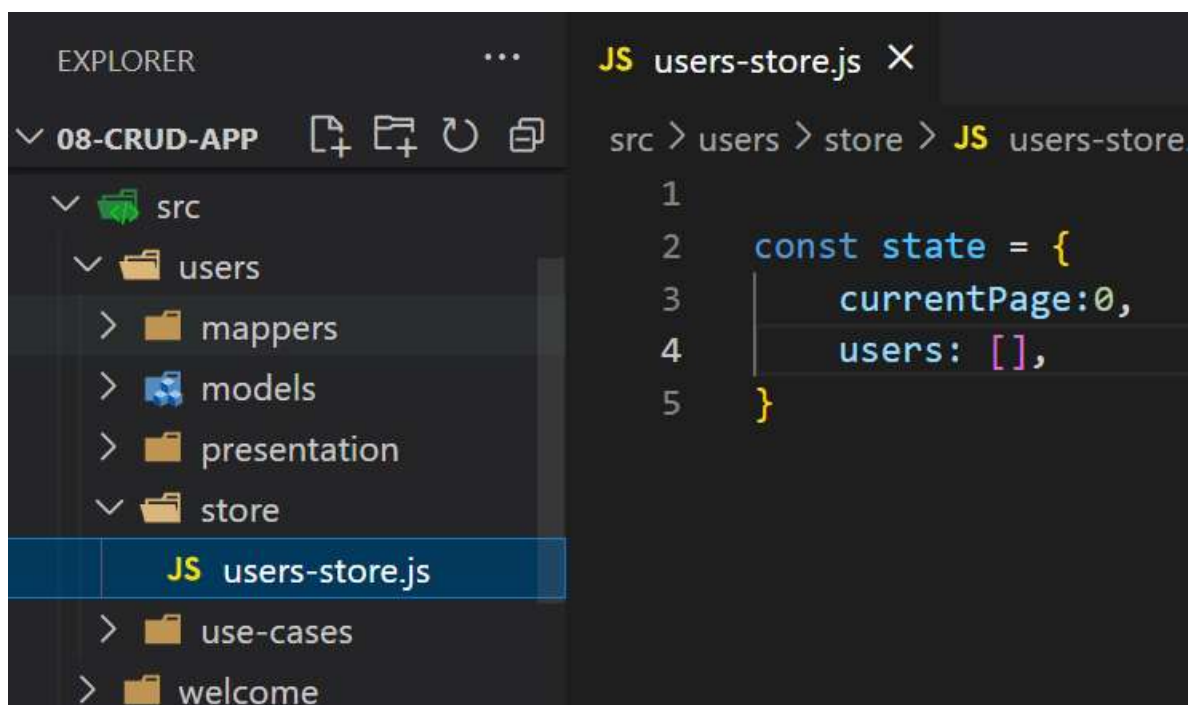
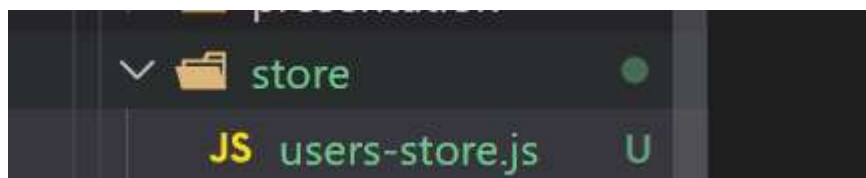
```
// Welcomeapp(element);
```



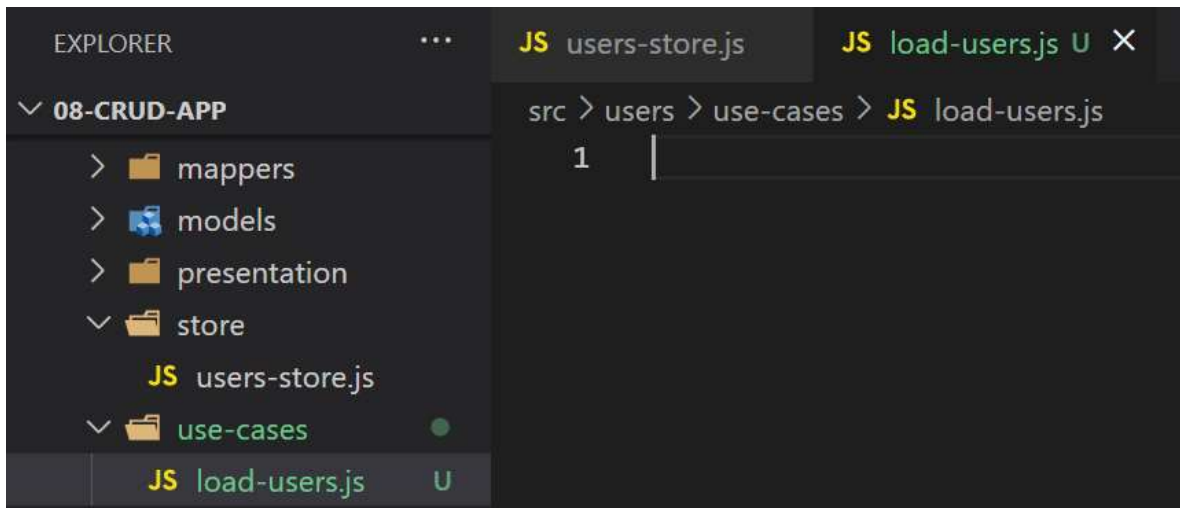
en la carpeta users, crear los siguientes directorios



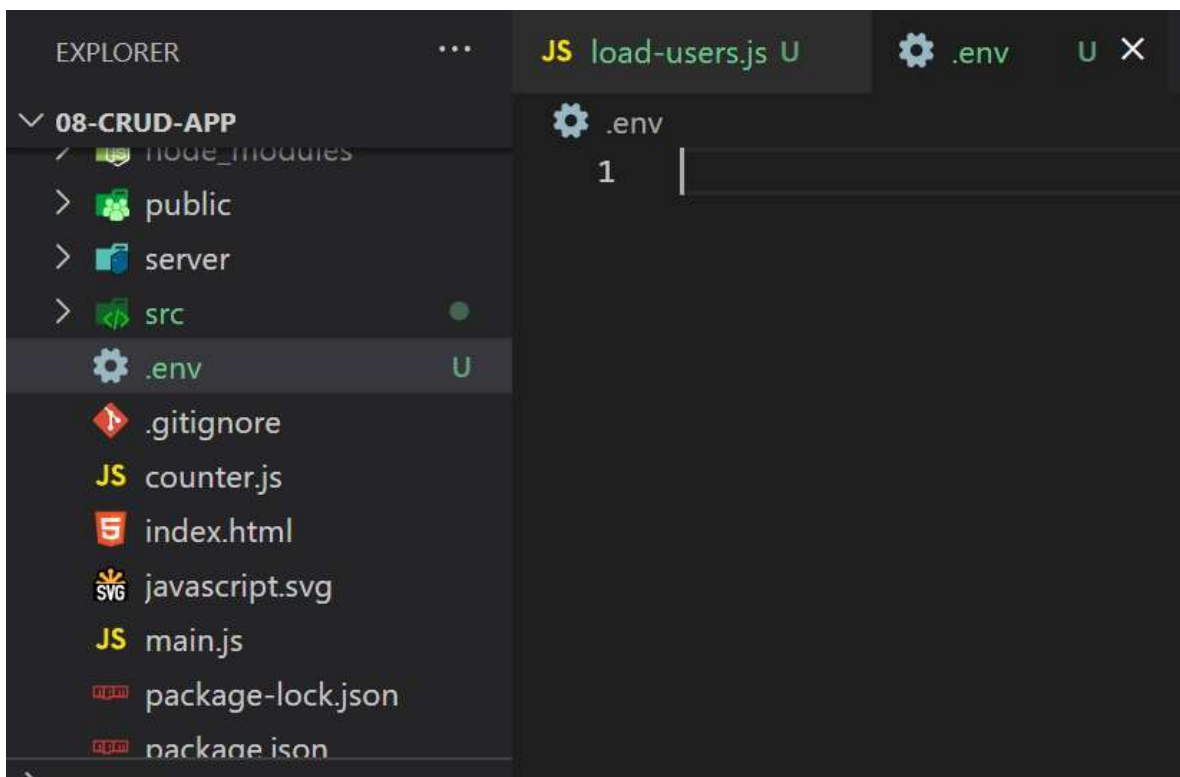
En la carpeta store crear

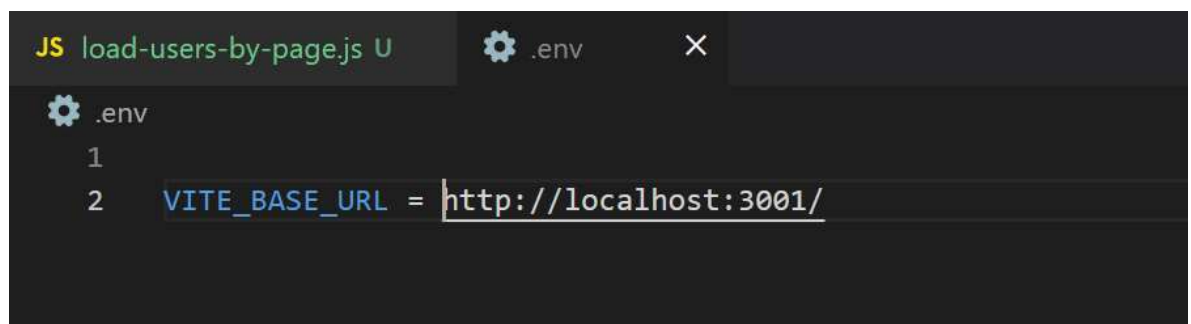
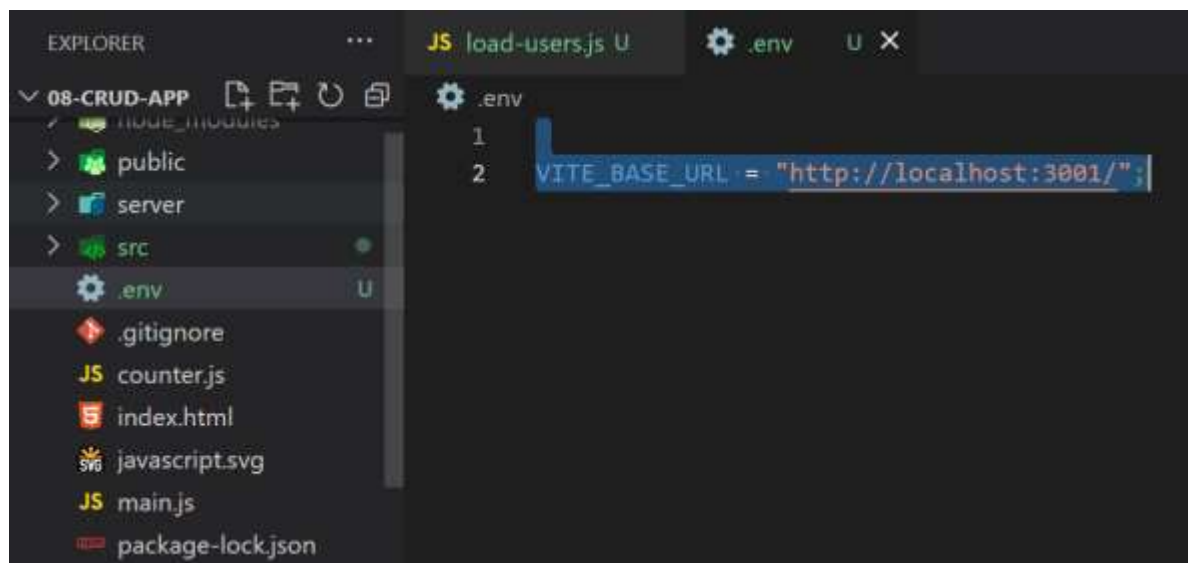
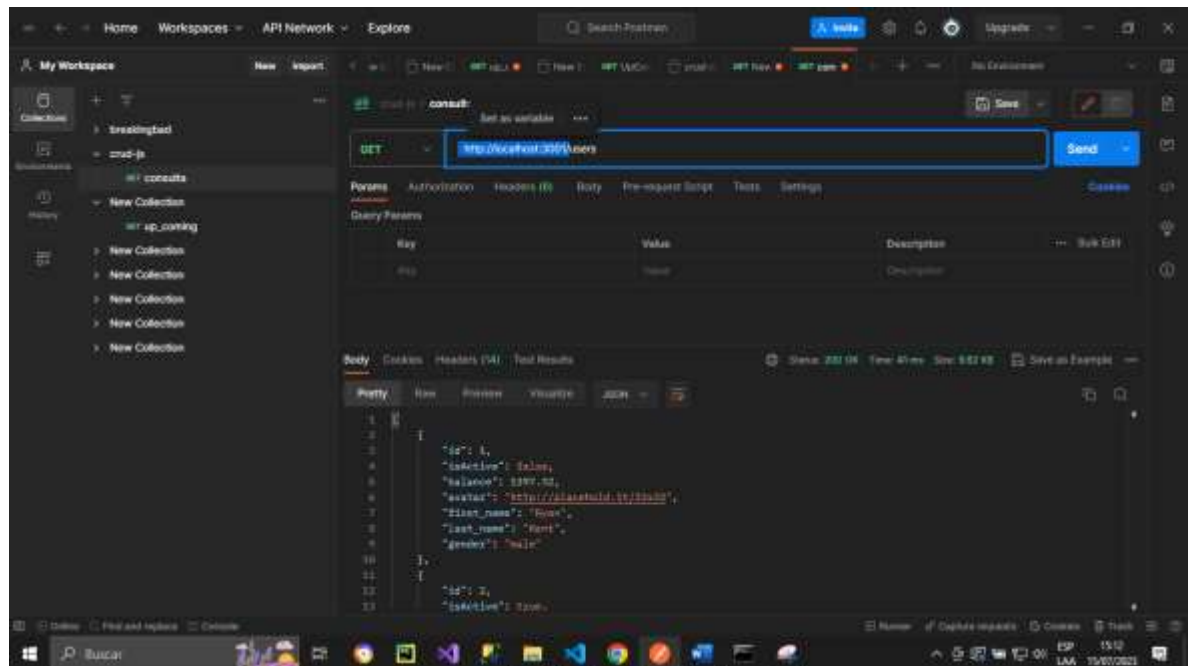


## Cargar usuarios



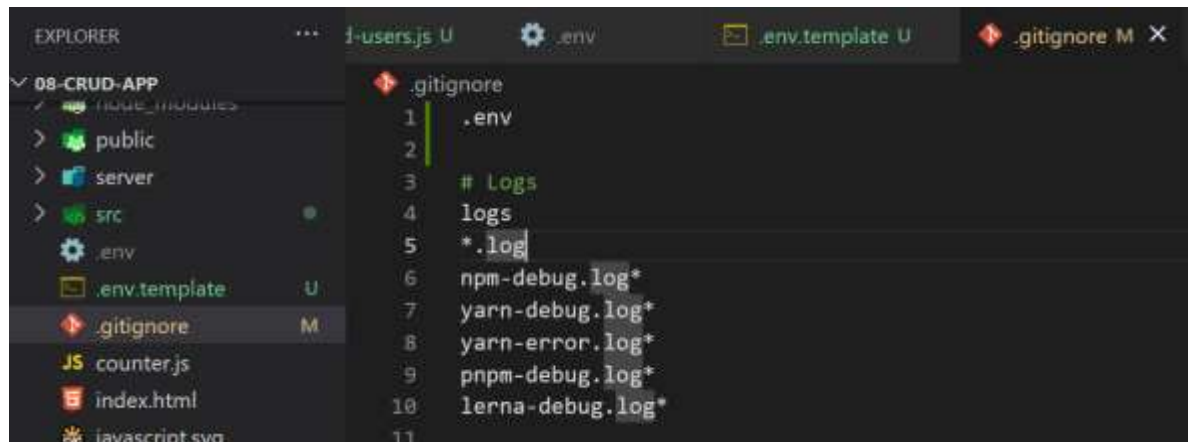
Crear un entorno de variables .env





`VITE_BASE_URL = http://localhost:3001/`

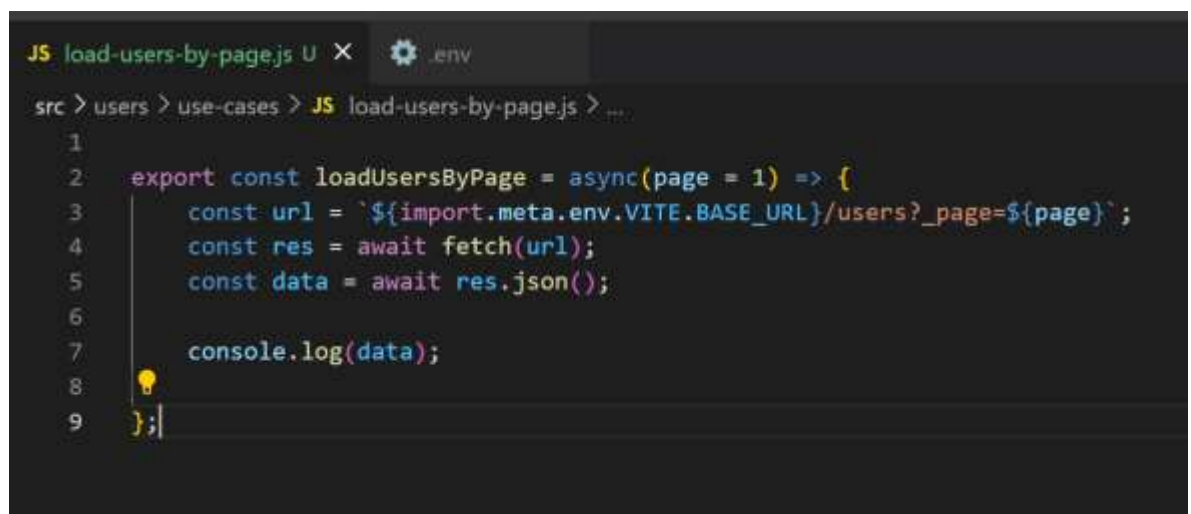




The screenshot shows the Explorer sidebar on the left with the file tree for '08-CRUD-APP'. The file '.gitignore' is selected. The main editor displays the content of '.gitignore' with the following lines:

```
1 .env
2
3 # Logs
4 logs
5 *.log
6 npm-debug.log*
7 yarn-debug.log*
8 yarn-error.log*
9 pnpm-debug.log*
10 lerna-debug.log*
11
```

Renombro el archivo



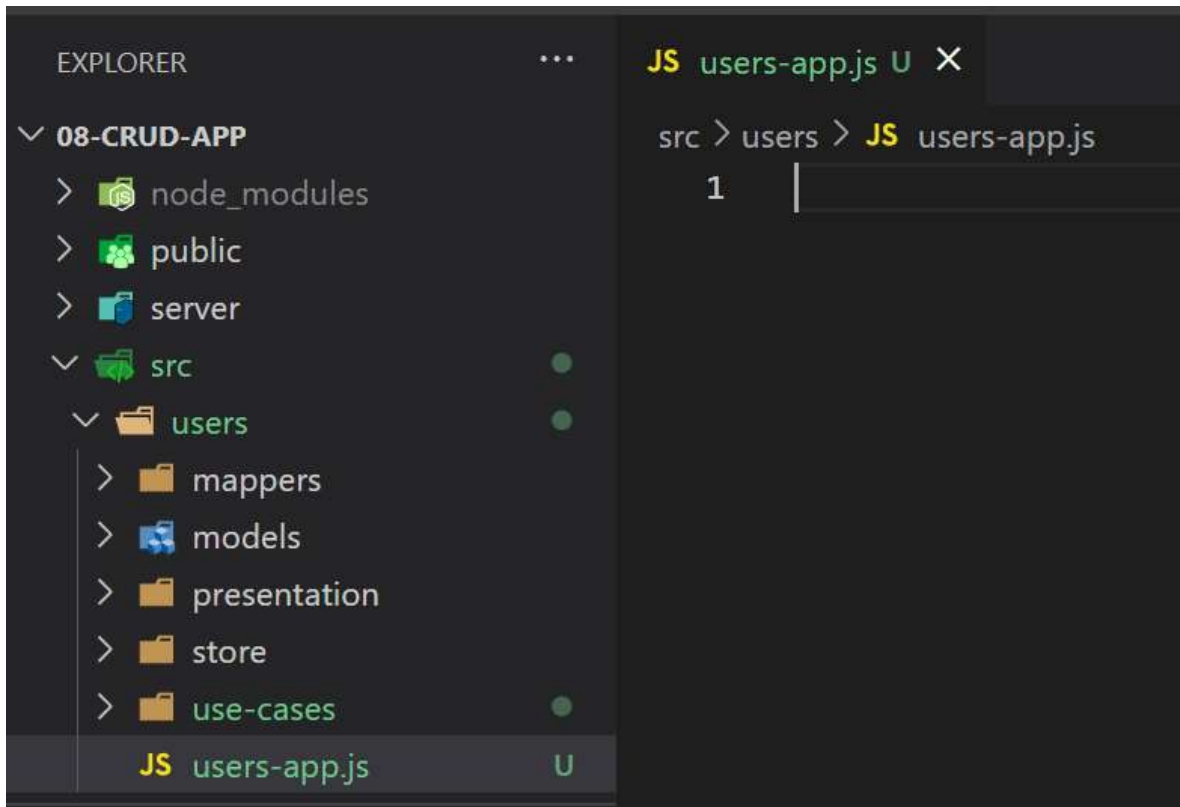
The screenshot shows the editor with the file 'load-users-by-page.js' open. The breadcrumb navigation at the top indicates the path: 'src > users > use-cases > JS load-users-by-page.js > ...'. The code in the editor is as follows:

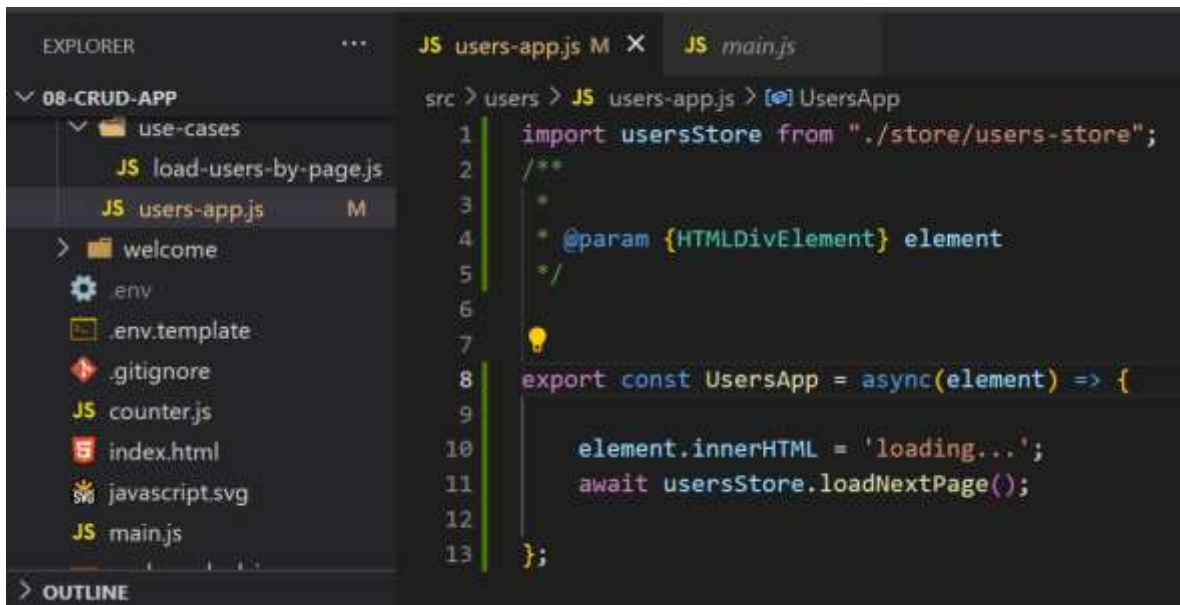
```
1
2 export const loadUsersByPage = async(page = 1) => {
3   const url = `${import.meta.env.VITE.BASE_URL}/users?_page=${page}`;
4   const res = await fetch(url);
5   const data = await res.json();
6
7   console.log(data);
8
9 };
```

```
/**
 *
 * @param {Number} page
 * @returns {}
 */
export const loadUsersByPage = async(page = 1) => {
  const url = `${import.meta.env.VITE.BASE_URL}/users?_page=${page}`;
  const res = await fetch(url);
  const data = await res.json();

  console.log(data);
};
```

Ir a la carpeta users





```
src > users > JS users-app.js > [x] UsersApp
1  import usersStore from "../store/users-store";
2  /**
3   *
4   * @param {HTMLDivElement} element
5   */
6
7  export const UsersApp = async(element) => {
8
9      element.innerHTML = 'loading...';
10     await usersStore.loadNextPage();
11
12 };
```

```
import usersStore from "../store/users-store";
/**
 *
 * @param {HTMLDivElement} element
 */

export const UsersApp = async(element) => {

    element.innerHTML = 'loading...';
    await usersStore.loadNextPage();

};
```

Abrir el main

```
import './style.css'
import javascriptLogo from './javascript.svg'
import viteLogo from '/vite.svg'
import { Welcomeapp } from './src/welcome/welcome-app';
import { UsersApp } from './src/users/users-app';

document.querySelector('#app').innerHTML = `
  <div>
    <a href="https://vitejs.dev" target="_blank">
      
    </a>
    <a href="https://developer.mozilla.org/en-US/docs/Web/JavaScript"
target="_blank">
```

```

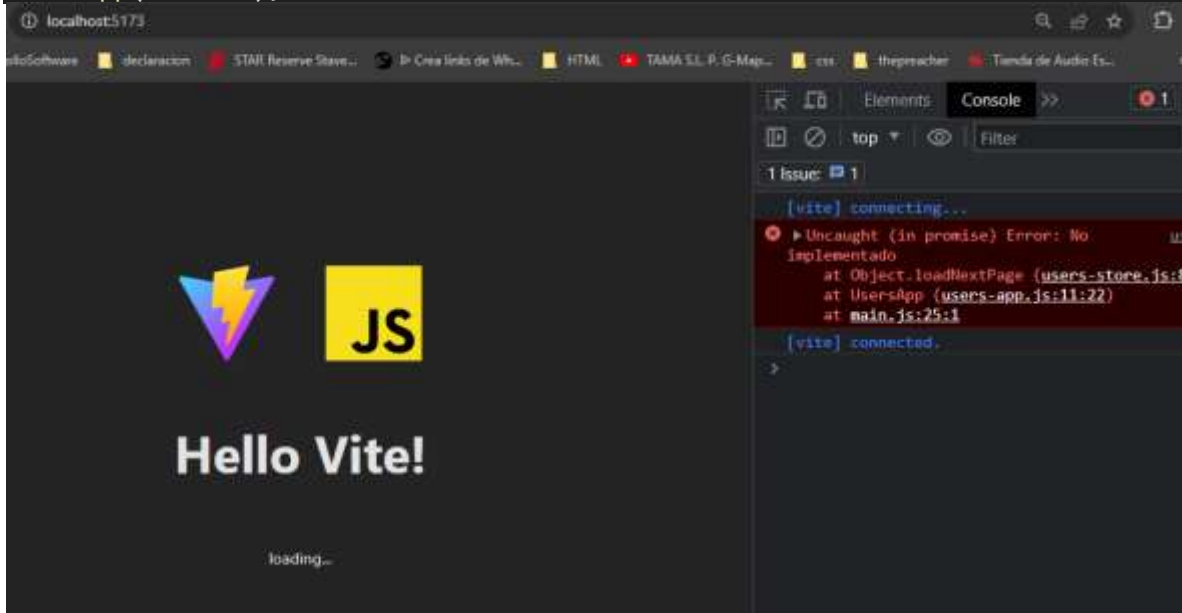
    
  </a>
  <h1 id="app-title">Hello Vite!</h1>
  <div class="card">

    </div>

  </div>
`
;
const element = document.querySelector('.card');

// Welcomeapp(element);
UsersApp(element);

```



Ir al users-store.js

```

const state = {
  currentPage: 0,
  users: [],
}

const loadNextPage = async () => {
  // throw new Error ('No implementado');
  // llamar la función loadNextPage
  await loadUsersByPage(state.currentPage+1);
}

const loadPreviousPage = async () => {
  throw new Error ('No implementado');
}

```

```

}

const onUserChanged = async () => {
  throw new Error ('No implementado');
}

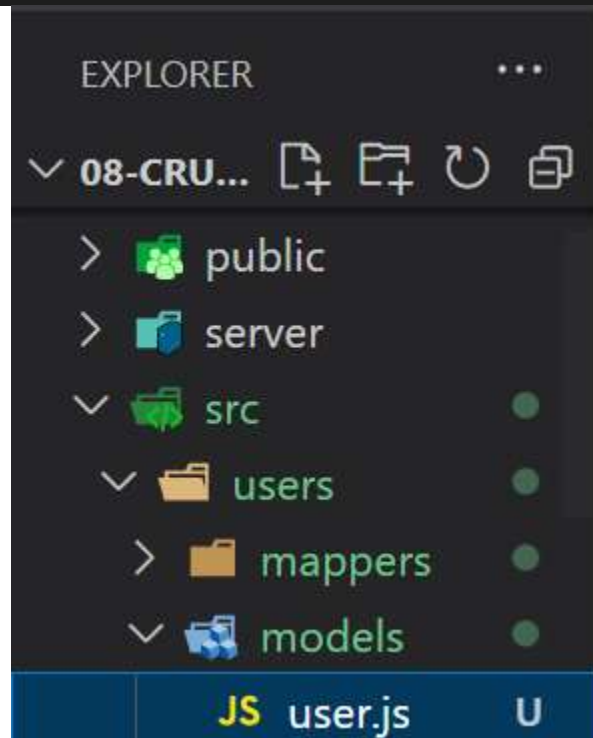
const reloadPage = async () => {
  throw new Error ('No implementado');
}

export default {
  loadNextPage,
  loadPreviousPage,
  onUserChanged,
  reloadPage,

  getUser: () => [...state.users],
  getCurrentPage: () => state.currentPage,
}

```

## User Model y problemas relacionados



```

export class User {

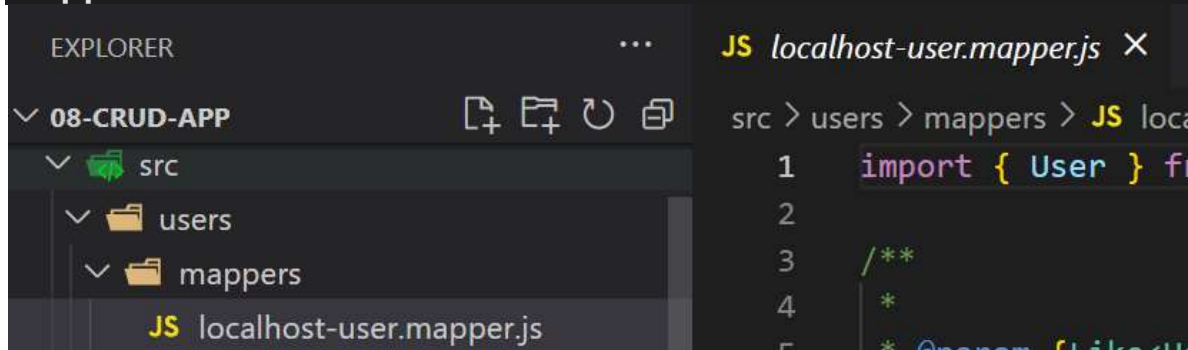
```

```

/**
 *
 * @param {Like<User>} userDataLike
 */
constructor({ id, isActive, balance, avatar, firstName, lastName, gender
}) {
  this.id      = id;
  this.isActive = isActive;
  this.balance  = balance;
  this.avatar   = avatar;
  this.firstName = firstName;
  this.lastName  = lastName;
  this.gender    = gender;
}
}

```

## Mappers



```

import { User } from "../models/user"

/**
 *
 * @param {Like<User>} localhostUser
 * @returns {User}
 */
export const localhostUserToModel = ( localhostUser ) => {

  const {
    avatar,

```

```

        balance,
        first_name,
        gender,
        id,
        isActive,
        last_name,
    } = localhostUser;

    return new User({
        avatar,
        balance,
        firstName: first_name,
        gender,
        id,
        isActive,
        lastName: last_name,
    });
}

```

```

4  /**
5   *
6   * @param {Number} page
7   * @returns { Promise<User[]> }
8   */
9  export const loadUsersByPage = async( page = 1 ) => {
10
11      const url = `${ import.meta.env.VITE_BASE_URL }/users?_
12      const res = await fetch(url);
13      const data = await res.json();
14
15      const users = data.map( localhostUserToModel );
16
17      return users;
18  }

```

```

import { localhostUserToModel } from '../mappers/localhost-user.mapper';
import { User } from '../models/user';

/**
 *
 * @param {Number} page
 * @returns { Promise<User[]> }
 */
export const loadUsersByPage = async( page = 1 ) => {

    const url = `${ import.meta.env.VITE_BASE_URL }/users?_page=${ page }`;

```

```

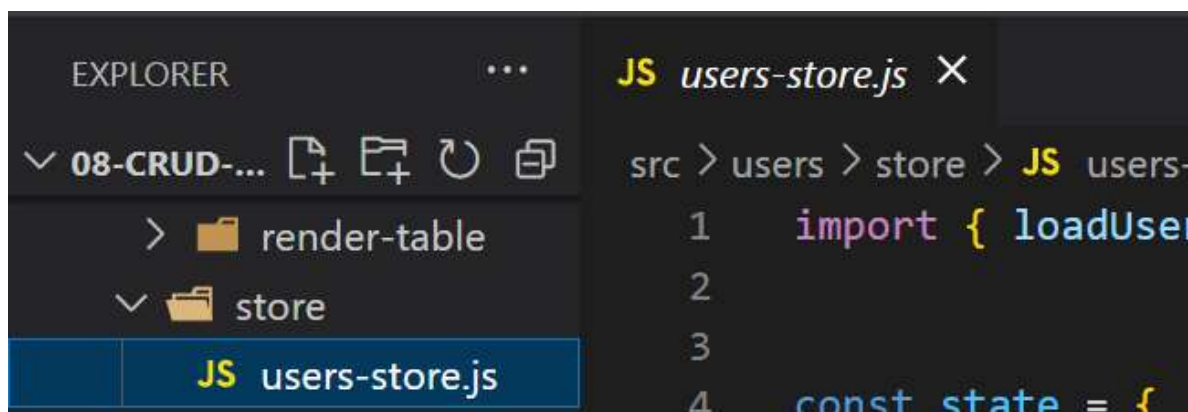
const res = await fetch(url);
const data = await res.json();

const users = data.map( localhostUserToModel );

return users;
}

```

## Actualizar nuestro Store



```

import { loadUsersByPage } from "../use-cases/load-users-by-page";

const state = {
  currentPage: 0,
  users: [],
}

const loadNextPage = async() => {
  const users = await loadUsersByPage( state.currentPage + 1 );
  if ( users.length === 0 ) return;

  state.currentPage += 1;
  state.users = users;
}

const loadPreviousPage = async() => {
  if ( state.currentPage === 1 ) return;
  const users = await loadUsersByPage( state.currentPage - 1 );

  state.users = users;
}

```



```

    state.currentPage -= 1;
  }

  /**
   *
   * @param {User} updatedUser
   */
  const onUserChanged = (updatedUser) => {

    let wasFound = false;

    state.users = state.users.map( user => {
      if ( user.id === updatedUser.id ) {
        wasFound = true;
        return updatedUser;
      }
      return user;
    });

    if ( state.users.length < 10 && !wasFound ) {
      state.users.push( updatedUser );
    }
  }

  const reloadPage = async() => {
    const users = await loadUsersByPage( state.currentPage );
    if ( users.length === 0 ) {
      await loadPreviousPage();
      return;
    }

    state.users = users;
  }

  export default {
    loadNextPage,
    loadPreviousPage,
    onUserChanged,
    reloadPage,

    /**
     * @returns {User[]}
     */
  }

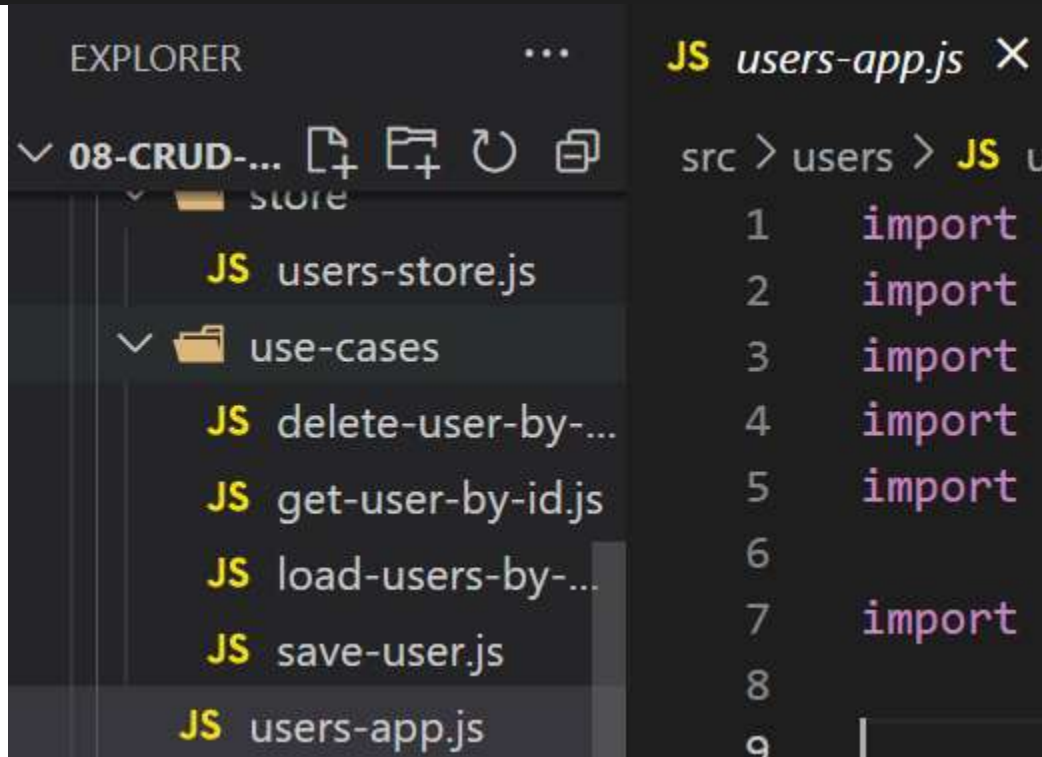
```

```

    getUsers: () => [...state.users],

    /**
     * @returns {Number}
     */
    getCurrentPage: () => state.currentPage,
  }

```



```

import usersStore from './store/users-store';
import { renderTable } from './presentation/render-table/render-table';
import { renderButtons } from './presentation/render-buttons/render-buttons';
import { renderAddButton } from './presentation/render-add-button/render-add-button';
import { renderModal } from './presentation/render-modal/render-modal';

import { saveUser } from './use-cases/save-user';

/**
 *
 * @param {HTMLDivElement} element
 */
export const UsersApp = async( element ) => {

    element.innerHTML = 'Loading...';

```

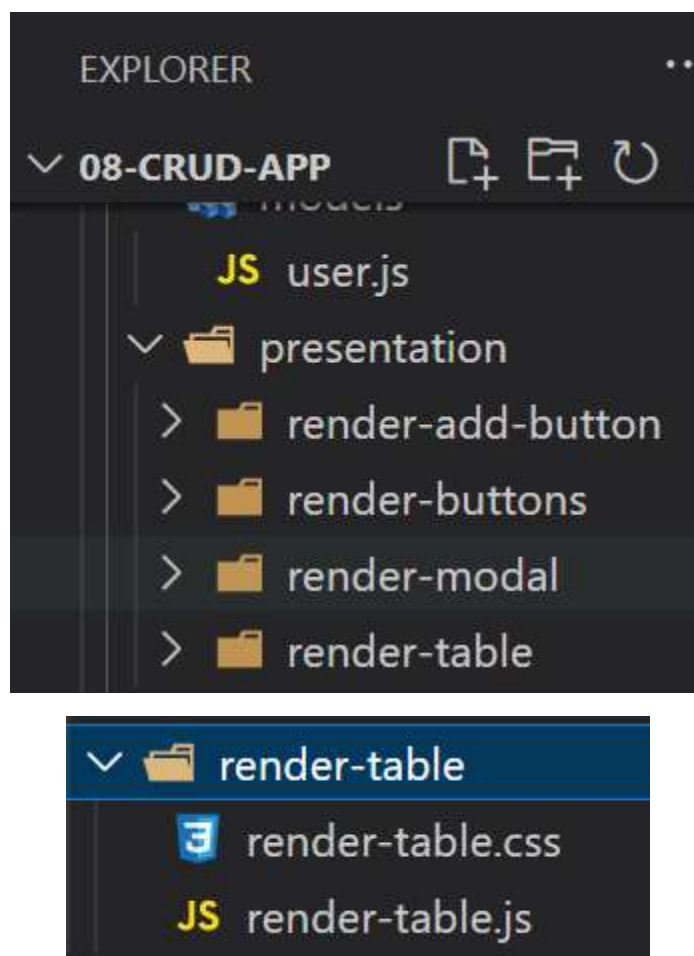
```

    await usersStore.loadNextPage();
    element.innerHTML = '';

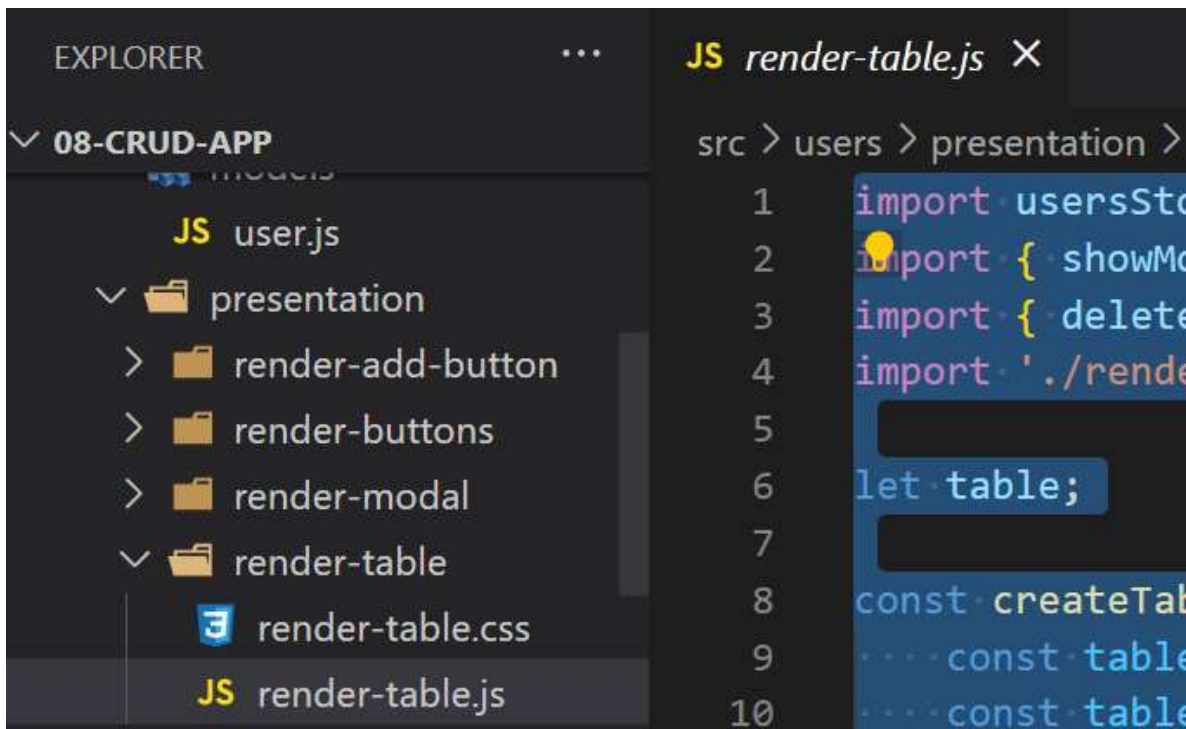
    renderTable( element );
    renderButtons( element );
    renderAddButton( element );
    renderModal( element, async( userLike ) => {
        const user = await saveUser( userLike );
        usersStore.onUserChanged( user );
        renderTable();
    });
}

```

## Crear una tabla HTML con los usuarios



## Render-table.js



```
import usersStore from '../../store/users-store';
import { showModal } from '../../render-modal/render-modal';
import { deleteUserById } from '../../use-cases/delete-user-by-id';
import './render-table.css';

let table;

const createTable = () => {
  const table = document.createElement('table');
  const tableHeaders = document.createElement('thead');
  tableHeaders.innerHTML = `
    <tr>
      <th>#ID</th>
      <th>Balance</th>
      <th>FistName</th>
      <th>LastName</th>
      <th>Active</th>
      <th>Actions</th>
    </tr>
  `;

  const tableBody = document.createElement('tbody');
  table.append( tableHeaders, tableBody )
  return table;
}
```

```

}

/**
 * @param {MouseEvent} event
 */
const tableSelectListener = (event) => {
  const element = event.target.closest('.select-user');
  if ( !element ) return;

  const id = element.getAttribute('data-id');
  showModal(id);
}

/**
 * @param {MouseEvent} event
 */
const tableDeleteListener = async(event) => {
  const element = event.target.closest('.delete-user');
  if ( !element ) return;

  const id = element.getAttribute('data-id');
  try {
    await deleteUserById(id);
    await usersStore.reloadPage();
    document.querySelector('#current-page').innerText =
usersStore.getCurrentPage();
    renderTable();

  } catch (error) {
    console.log(error);
    alert('No se pudo eliminar');
  }
}

/**
 *
 * @param {HTMLDivElement} element
 */
export const renderTable = ( element ) => {

  const users = usersStore.getUsers();

  if ( !table ) {

```

```

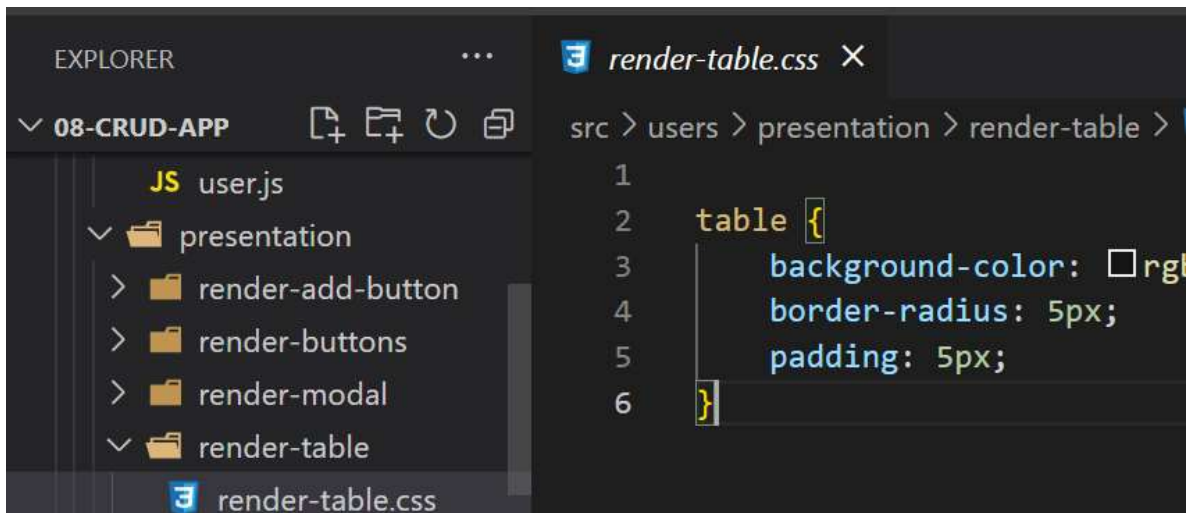
    table = createTable();
    element.append( table );

    table.addEventListener('click', tableSelectListener );
    table.addEventListener('click', tableDeleteListener );
}

let tableHTML = '';
users.forEach( user => {
    tableHTML += `
        <tr>
            <td>${ user.id }</td>
            <td>${ user.balance }</td>
            <td>${ user.firstName }</td>
            <td>${ user.lastName }</td>
            <td>${ user.isActive }</td>
            <td>
                <a href="#/" class="select-user" data-id="${ user.id
}">Select</a>
                |
                <a href="#/" class="delete-user" data-id="${ user.id
}">Delete</a>
            </td>
        </tr>
    `;
});

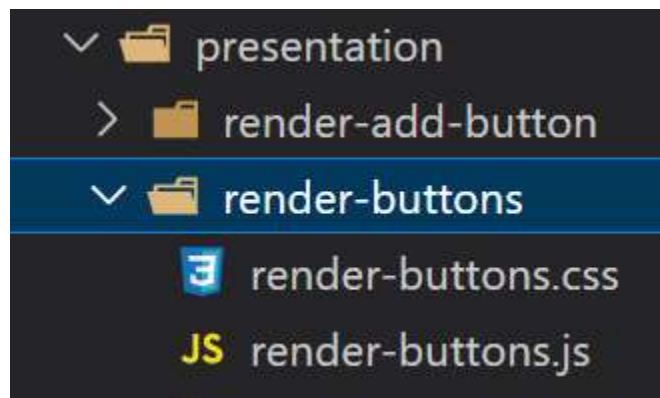
table.querySelector('tbody').innerHTML = tableHTML;
}

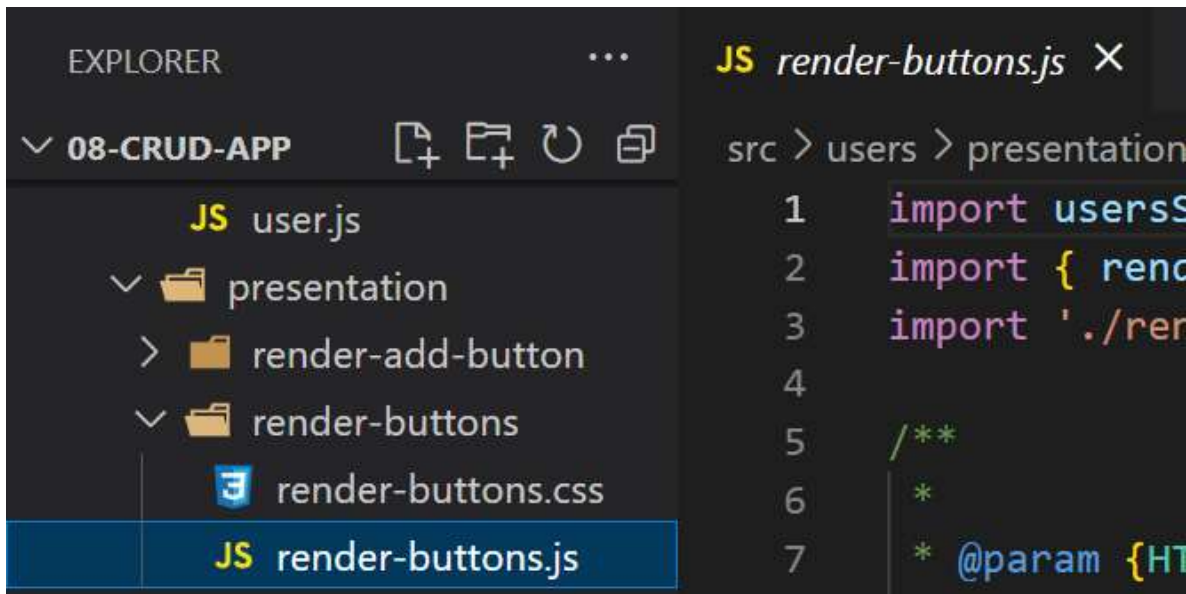
```



```
table {  
    background-color: rgba(0, 0, 0, 0.348);  
    border-radius: 5px;  
    padding: 5px;  
}
```

## Botones - Next, Prev y página actual Funcionalidad de los botones





```
import usersStore from '../../store/users-store';
import { renderTable } from '../../render-table/render-table';
import './render-buttons.css';

/**
 *
 * @param {HTMLDivElement} element
 */
export const renderButtons = ( element ) => {

    const nextButton = document.createElement('button');
    nextButton.innerText = ' Next >';

    const prevButton = document.createElement('button');
    prevButton.innerText = '< Prev ';

    const currentPageLabel = document.createElement('span');
    currentPageLabel.id = 'current-page'
    currentPageLabel.innerText = usersStore.getCurrentPage();

    element.append( prevButton, currentPageLabel, nextButton );

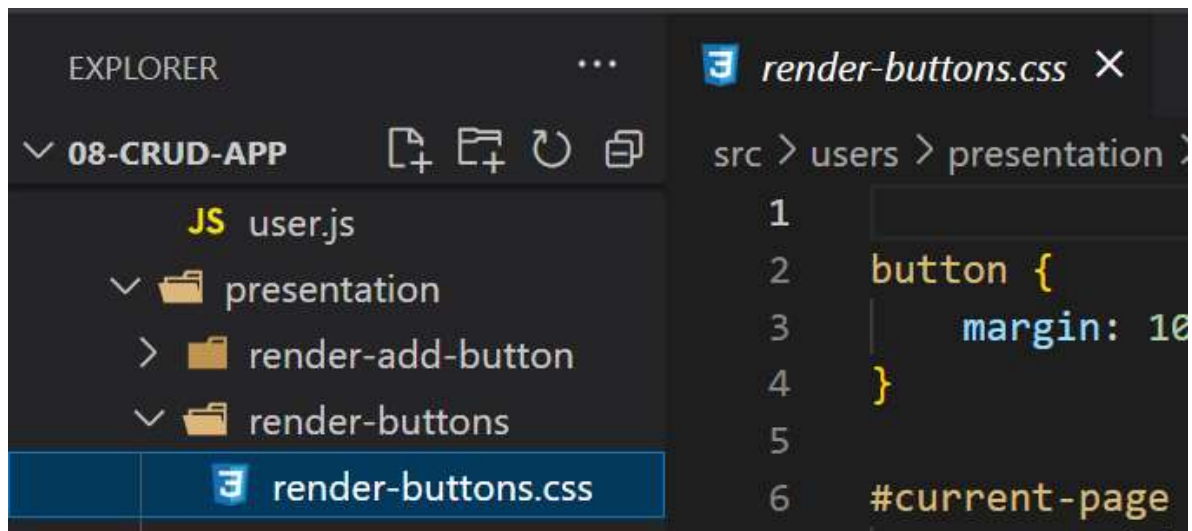
    nextButton.addEventListener('click', async() => {
        await usersStore.loadNextPage();
        currentPageLabel.innerText = usersStore.getCurrentPage();
        renderTable( element );
    });
};
```



```

prevButton.addEventListener('click', async() => {
  await usersStore.loadPreviousPage();
  currentPageLabel.innerText = usersStore.getCurrentPage();
  renderTable( element );
});
}

```



```

button {
  margin: 10px;
}

#current-page {
  color: white !important;
  font-size: 1.3rem;
  margin-left: 10px;
  margin-right: 10px;
}

```

```
JS users-store.js X
src > users > store > JS users-store.js > [e] default
13     state.currentPage += 1;
14     state.users = users;
15 }
16
17 const loadPreviousPage = async() => {
18     if ( state.currentPage === 1 ) return;
19     const users = await loadUsersByPage( state.currentPage - 1 );
20
21     state.users = users;
22     state.currentPage -= 1;
23 }
24
```

```
import { loadUsersByPage } from "../use-cases/load-users-by-page";

const state = {
  currentPage: 0,
  users: [],
}

const loadNextPage = async() => {
  const users = await loadUsersByPage( state.currentPage + 1 );
  if ( users.length === 0 ) return;

  state.currentPage += 1;
  state.users = users;
}

const loadPreviousPage = async() => {
  if ( state.currentPage === 1 ) return;
  const users = await loadUsersByPage( state.currentPage - 1 );

  state.users = users;
  state.currentPage -= 1;
}

/**
 *
 * @param {User} updatedUser
 */
const onUserChanged = (updatedUser) => {
```

```

    let wasFound = false;

    state.users = state.users.map( user => {
      if ( user.id === updatedUser.id ) {
        wasFound = true;
        return updatedUser;
      }
      return user;
    });

    if ( state.users.length < 10 && !wasFound ) {
      state.users.push( updatedUser );
    }
  }

const reloadPage = async() => {
  const users = await loadUsersByPage( state.currentPage );
  if ( users.length === 0 ) {
    await loadPreviousPage();
    return;
  }

  state.users = users;
}

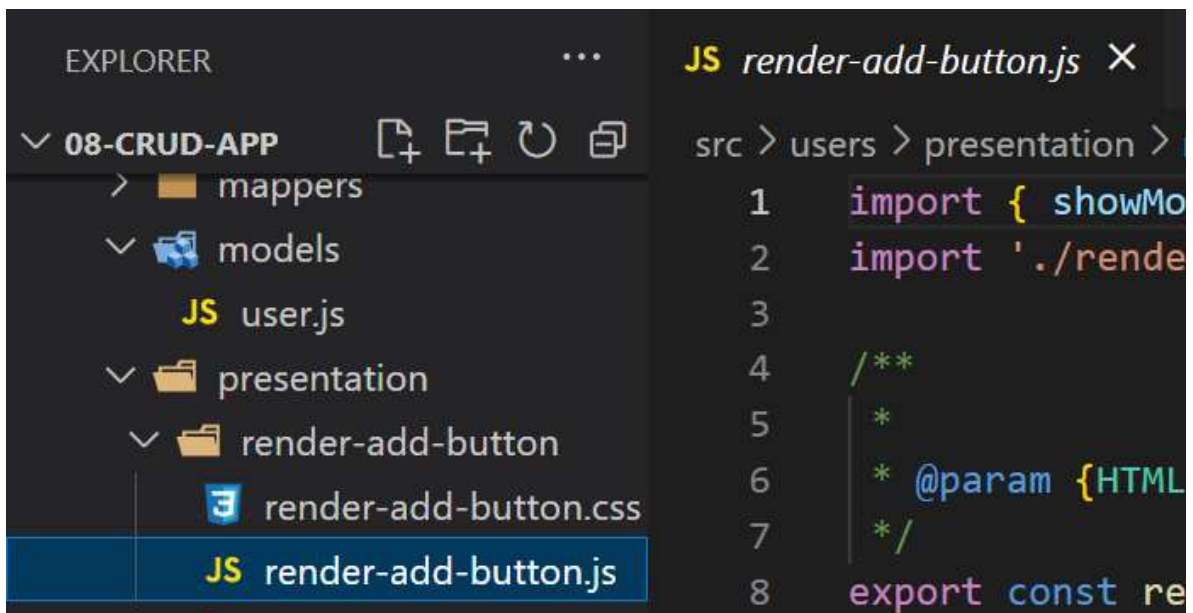
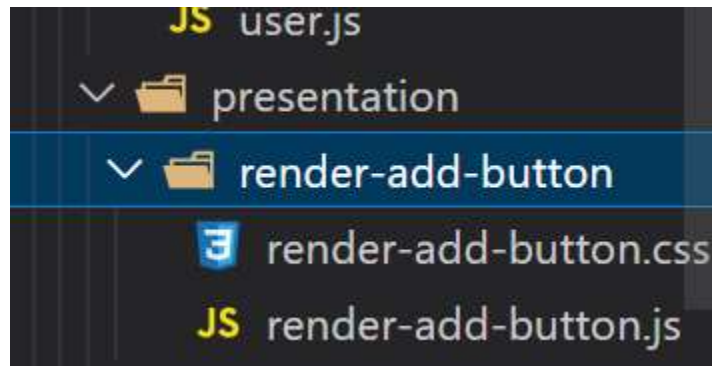
export default {
  loadNextPage,
  loadPreviousPage,
  onUserChanged,
  reloadPage,

  /**
   * @returns {User[]}
   */
  getUsers: () => [...state.users],

  /**
   * @returns {Number}
   */
  getCurrentPage: () => state.currentPage,
}

```

## Botón flotante



```
import { showModal } from '../render-modal/render-modal';
import './render-add-button.css';

/**
 *
 * @param {HTMLDivElement} element
 */
export const renderAddButton = ( element ) => {

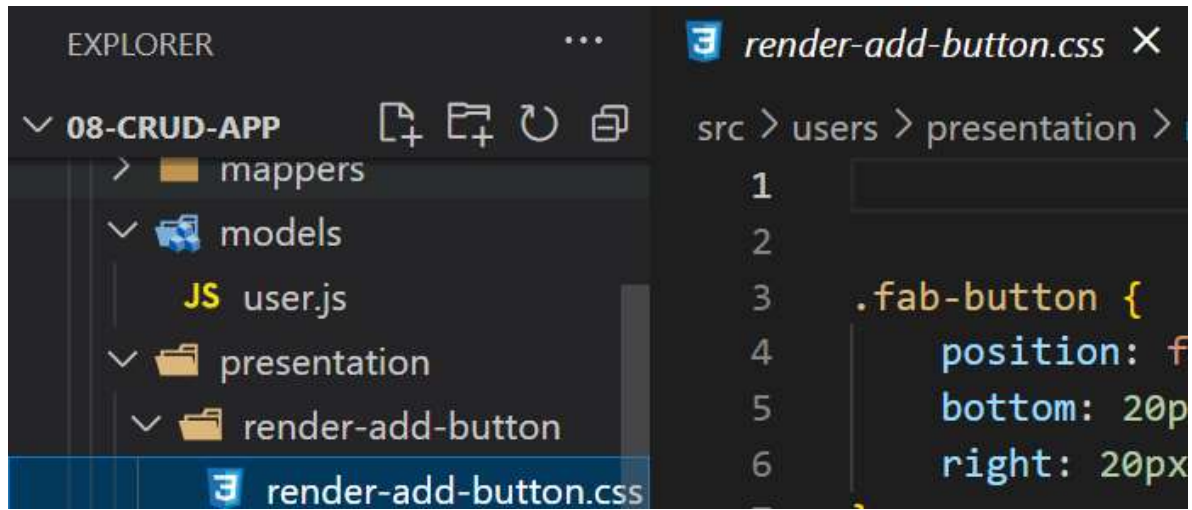
  const fabButton = document.createElement('button');
  fabButton.innerText = '+';
  fabButton.classList.add('fab-button');

  element.append( fabButton );
```

```

//TODO:
fabButton.addEventListener('click', () =>{
  showModal();
});
}

```



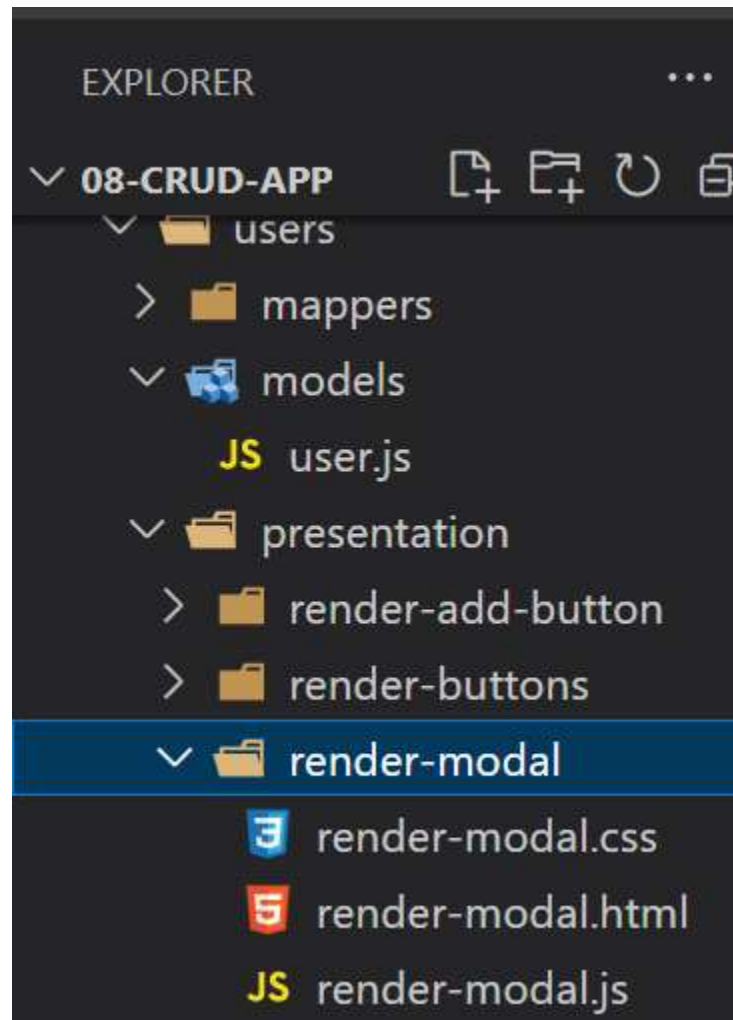
```

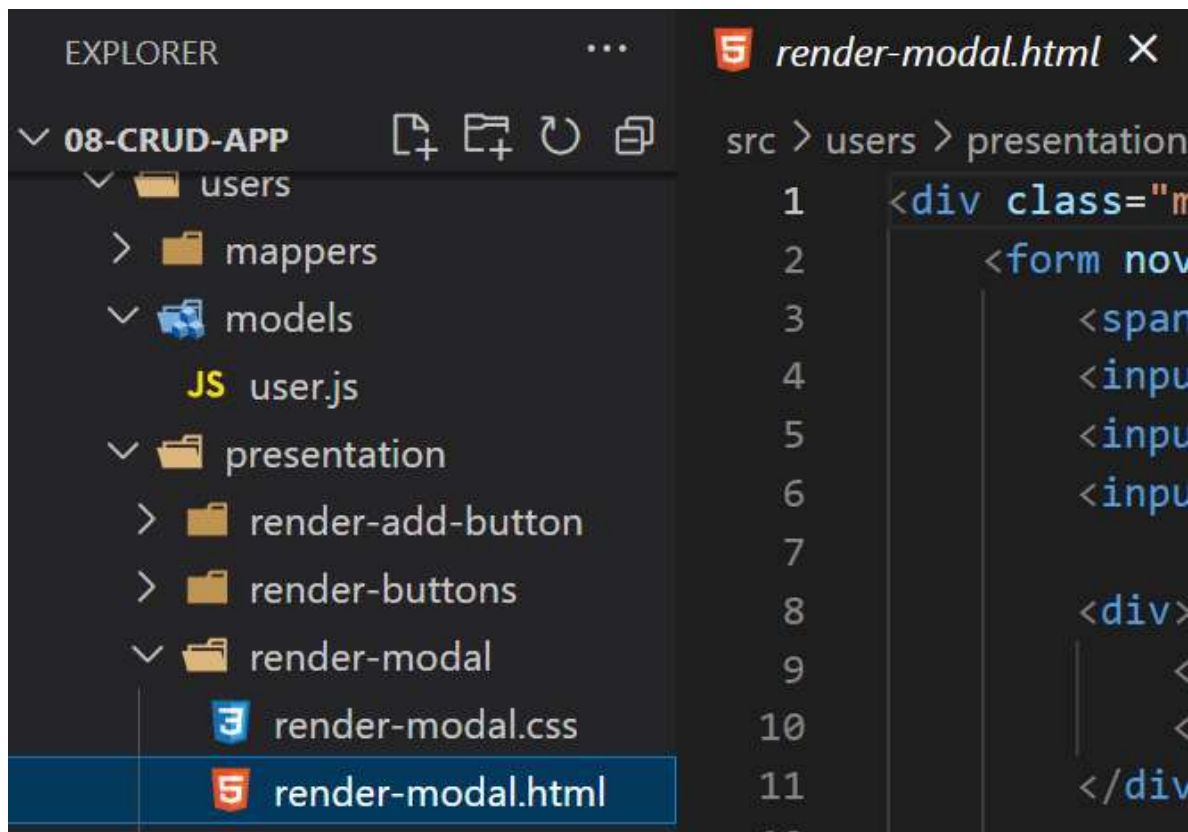
.fab-button {
  position: fixed;
  bottom: 20px;
  right: 20px;
}

```

## Crear modal manualmente

<https://gist.github.com/Klerith/d6bc5662c8a99da409468eadb676497f#file-render-modal-html>



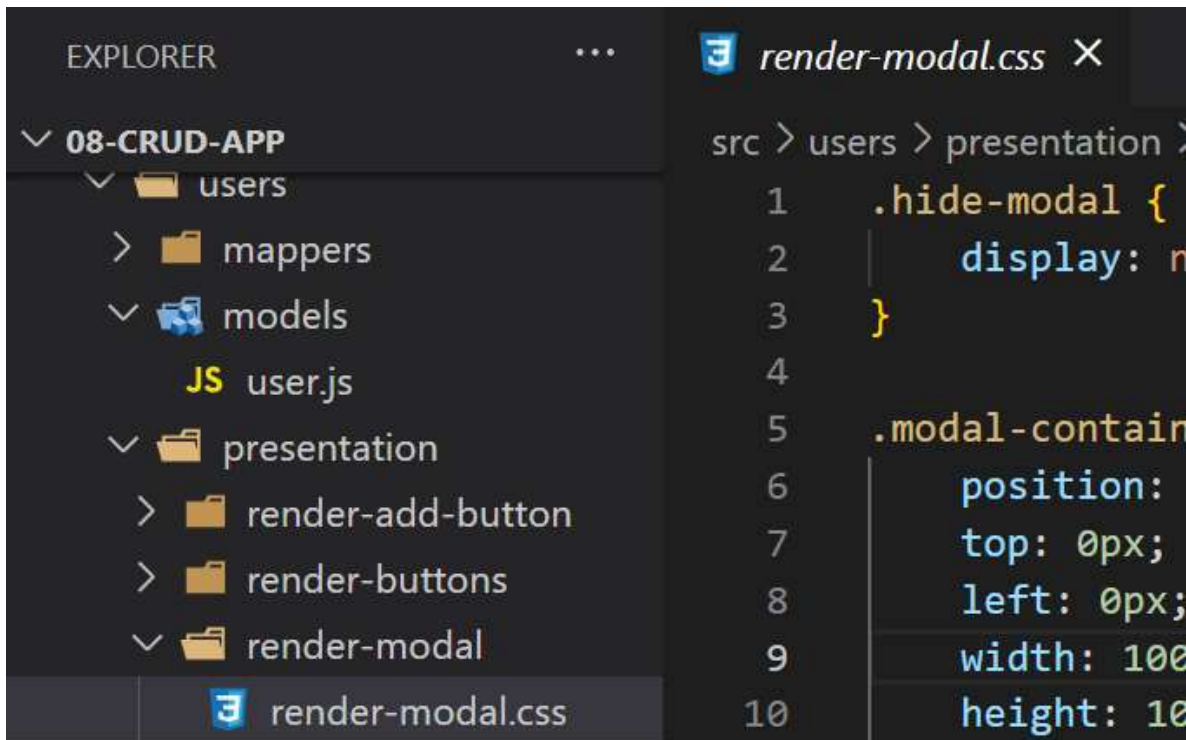


```
<div class="modal-dialog">
  <form novalidate>
    <span>User</span>
    <input type="text" name="firstName" placeholder="First Name" />
    <input type="text" name="lastName" placeholder="Last Name" />
    <input type="number" name="balance" placeholder="Balance" />

    <div>
      <input type="checkbox" id="is-active" name="isActive" checked/>
      <label for="is-active">is active?</label>
    </div>

    <button type="submit">
      Save
    </button>

  </form>
</div>
```



```
.hide-modal {
  display: none !important;
}

.modal-container {
  position: fixed;
  top: 0px;
  left: 0px;
  width: 100vw;
  height: 100vh;
  display: flex;
  justify-content: center;
  align-items: center;
  background-color: rgba(0, 0, 0, 0.5);
}

.modal-dialog {
  background-color: white;
  border-radius: 5px;
  padding: 10px;
  box-shadow: 0px 5px 15px rgba(255, 255, 255, 0.2);
}

form {
  display: flex;
```



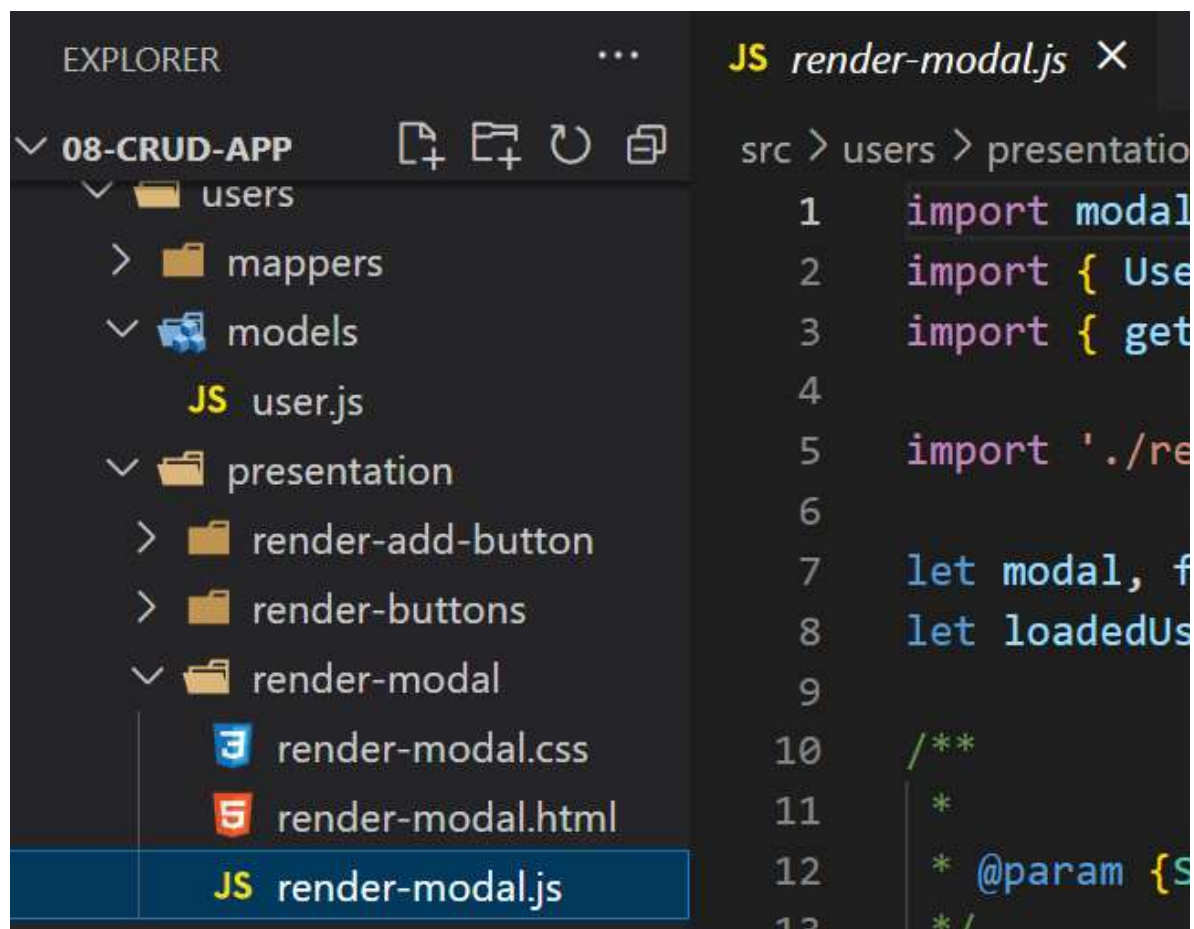
```

    flex-direction: column;
    align-items: start;
}

input {
    margin-bottom: 10px;
    padding: 5px;
}

span, label {
    color: black;
}

```



```

import modalHtml from './render-modal.html?raw';
import { User } from '../../models/user';
import { getUserById } from '../../use-cases/get-user-by-id';

import './render-modal.css';

let modal, form;

```

```

let loadedUser = {};

/**
 *
 * @param {String|Number} id
 */
export const showModal = async( id ) => {
    modal?.classList.remove('hide-modal');
    loadedUser = {};

    if ( !id ) return;
    const user = await getUserById( id );
    setFormValues(user);
}

export const hideModal = () => {
    modal?.classList.add('hide-modal');
    form?.reset();
}

/**
 *
 * @param {User} user
 */
const setFormValues = ( user ) => {
    form.querySelector('[name="firstName"]').value = user.firstName;
    form.querySelector('[name="lastName"]').value = user.lastName;
    form.querySelector('[name="balance"]').value = user.balance;
    form.querySelector('[name="isActive"]').checked = user.isActive;
    loadedUser = user;
}

/**
 *
 * @param {HTMLDivElement} element
 * @param {(userLike)=> Promise<void> } callback
 */
export const renderModal = ( element, callback ) => {

    if ( modal ) return;

    modal = document.createElement('div');

```

```

modal.innerHTML = modalHtml;
modal.className = 'modal-container hide-modal';
form = modal.querySelector('form');

modal.addEventListener('click', (event) => {
  if ( event.target.className === 'modal-container' ) {
    hideModal();
  }
});

form.addEventListener('submit', async(event) => {
  event.preventDefault();

  const formData = new FormData( form );
  const userLike = { ...loadedUser };

  for (const [key, value] of formData) {
    if ( key === 'balance' ){
      userLike[key] = +value;
      continue;
    }

    if ( key === 'isActive' ) {
      userLike[key] = (value === 'on') ? true : false;
      continue;
    }

    userLike[key] = value;
  }

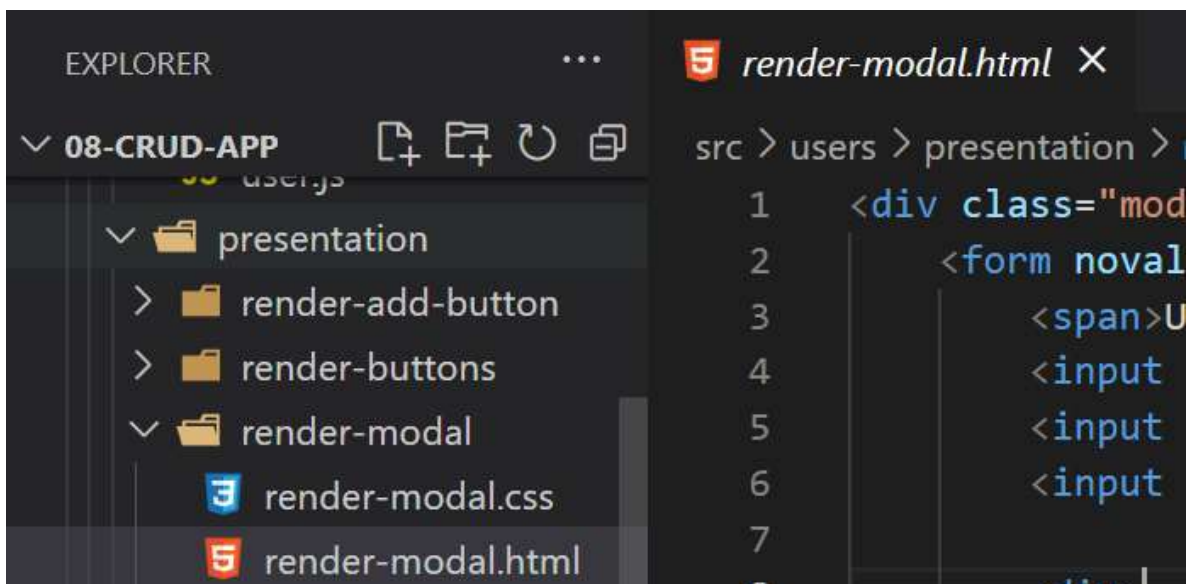
  // console.log(userLike);
  await callback( userLike );

  hideModal();
});

element.append( modal );
}

```

## Crear modal manualmente y Comportamiento esperado del modal

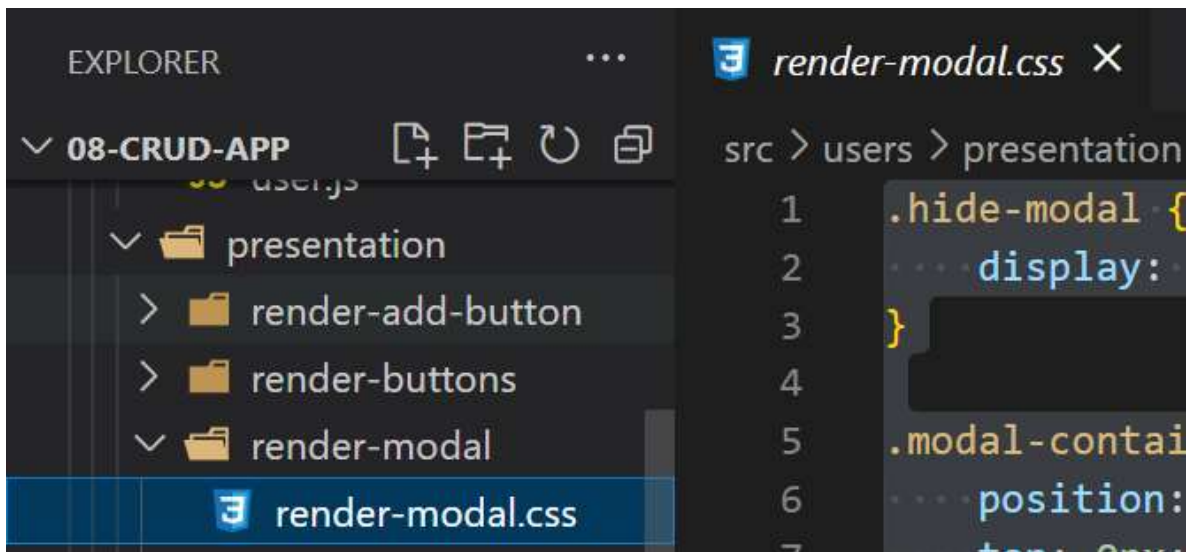


```
<div class="modal-dialog">
  <form novalidate>
    <span>User</span>
    <input type="text" name="firstName" placeholder="First Name" />
    <input type="text" name="lastName" placeholder="Last Name" />
    <input type="number" name="balance" placeholder="Balance" />

    <div>
      <input type="checkbox" id="is-active" name="isActive" checked/>
      <label for="is-active">is active?</label>
    </div>

    <button type="submit">
      Save
    </button>

  </form>
</div>
```



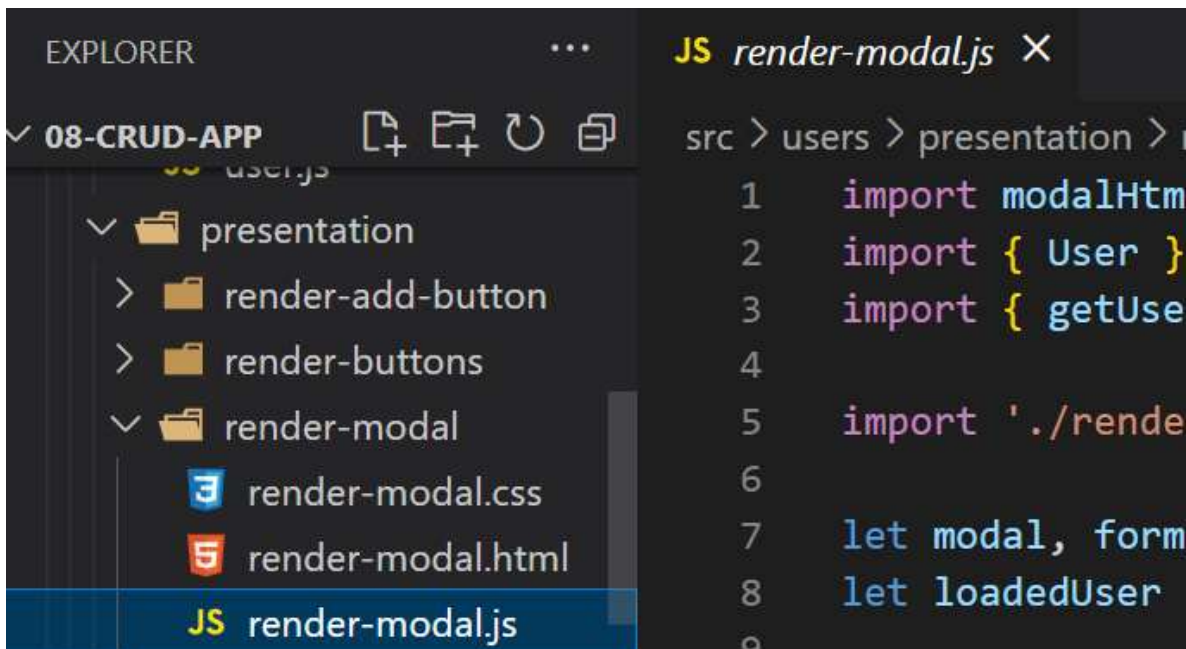
```
.hide-modal {  
  display: none !important;  
}  
  
.modal-container {  
  position: fixed;  
  top: 0px;  
  left: 0px;  
  width: 100vw;  
  height: 100vh;  
  display: flex;  
  justify-content: center;  
  align-items: center;  
  background-color: rgba(0, 0, 0, 0.5);  
}  
  
.modal-dialog {  
  background-color: white;  
  border-radius: 5px;  
  padding: 10px;  
  box-shadow: 0px 5px 15px rgba(255, 255, 255, 0.2);  
}  
  
form {  
  display: flex;  
  flex-direction: column;  
  align-items: start;  
}
```

```

input {
  margin-bottom: 10px;
  padding: 5px;
}

span, label {
  color: black;
}

```



```

import modalHtml from './render-modal.html?raw';
import { User } from '../models/user';
import { getUserById } from '../use-cases/get-user-by-id';

import './render-modal.css';

let modal, form;
let loadedUser = {};

/**
 *
 * @param {String|Number} id
 */

```

```

export const showModal = async( id ) => {
  modal?.classList.remove('hide-modal');
  loadedUser = {};

  if ( !id ) return;
  const user = await getUserById( id );
  setFormValues(user);
}

export const hideModal = () => {
  modal?.classList.add('hide-modal');
  form?.reset();
}

/**
 *
 * @param {User} user
 */
const setFormValues = ( user ) => {
  form.querySelector('[name="firstName"]').value = user.firstName;
  form.querySelector('[name="lastName"]').value = user.lastName;
  form.querySelector('[name="balance"]').value = user.balance;
  form.querySelector('[name="isActive"]').checked = user.isActive;
  loadedUser = user;
}

/**
 *
 * @param {HTMLDivElement} element
 * @param {(userLike)=> Promise<void> } callback
 */
export const renderModal = ( element, callback ) => {

  if ( modal ) return;

  modal = document.createElement('div');
  modal.innerHTML = modalHtml;
  modal.className = 'modal-container hide-modal';
  form = modal.querySelector('form');

  modal.addEventListener('click', (event) => {

```

```

        if ( event.target.className === 'modal-container' ) {
            hideModal();
        }
    });

    form.addEventListener('submit', async(event) => {
        event.preventDefault();

        const formData = new FormData( form );
        const userLike = { ...loadedUser };

        for (const [key, value] of formData) {
            if ( key === 'balance' ){
                userLike[key] = +value;
                continue;
            }

            if ( key === 'isActive' ) {
                userLike[key] = (value === 'on') ? true : false;
                continue;
            }

            userLike[key] = value;
        }

        // console.log(userLike);
        await callback( userLike );

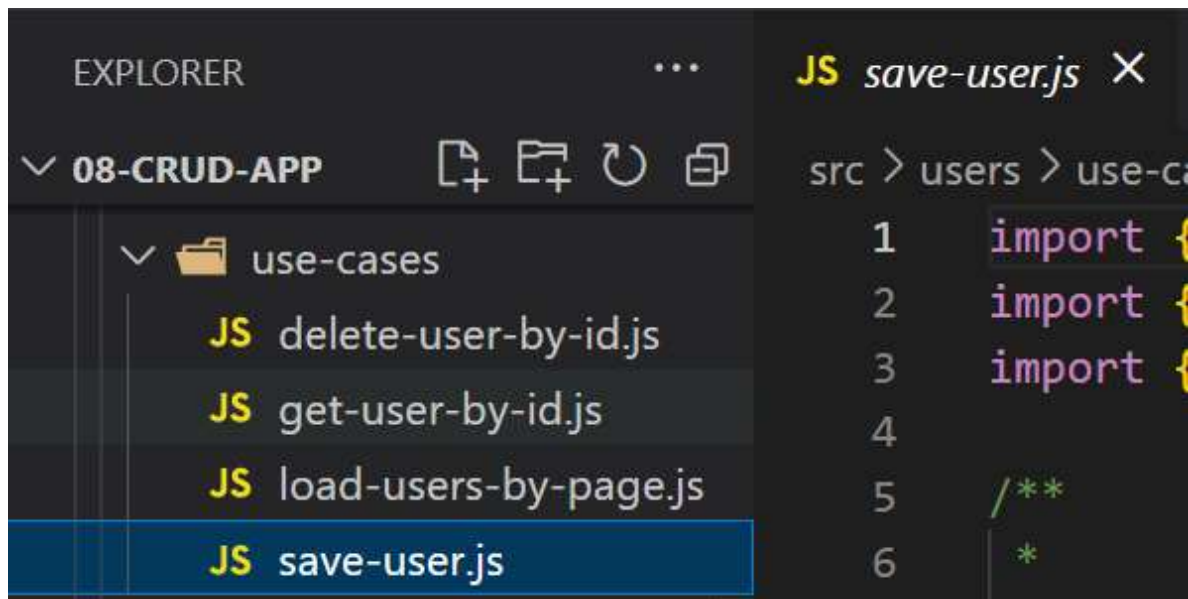
        hideModal();
    });

    element.append( modal );
}

```



## Caso de uso - Crear usuario



```
import { User } from '../models/user'
import { userModelToLocalhost } from '../mappers/user-to-localhost.mapper';
import { localhostUserToModel } from '../mappers/localhost-user.mapper';

/**
 *
 * @param {Like<User>} userLike
 */
export const saveUser = async( userLike ) => {

    const user = new User( userLike );

    if ( !user.firstName || !user.lastName )
        throw 'First & last name are required';

    const userToSave = userModelToLocalhost( user );
    let userUpdated;

    if ( user.id ) {
        userUpdated = await updateUser(userToSave);
    } else {
        userUpdated = await createUser( userToSave );
    }
}
```

```

        return localhostUserToModel( userUpdated );
    }

    /**
     * @param {Like<User>} user
     */
    const createUser = async( user ) => {

        const url = `${ import.meta.env.VITE_BASE_URL }/users`;
        const res = await fetch(url, {
            method: 'POST',
            body: JSON.stringify(user),
            headers: {
                'Content-Type': 'application/json'
            }
        });

        const newUser = await res.json();
        console.log({ newUser });

        return newUser;
    }

    /**
     * @param {Like<User>} user
     */
    const updateUser = async( user ) => {

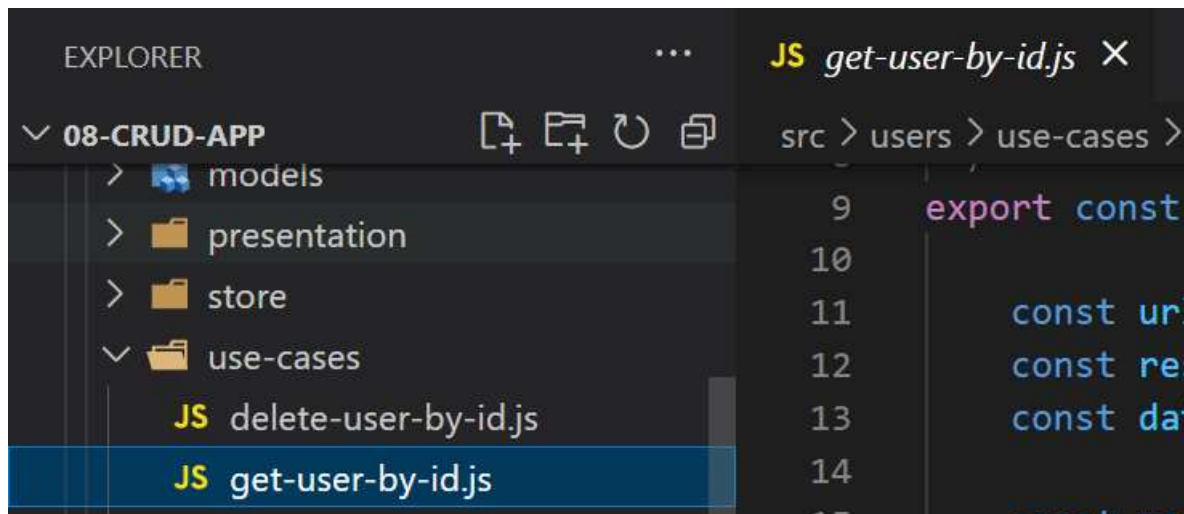
        const url = `${ import.meta.env.VITE_BASE_URL }/users/${ user.id }`;
        const res = await fetch(url, {
            method: 'PATCH',
            body: JSON.stringify(user),
            headers: {
                'Content-Type': 'application/json'
            }
        });

        const updatedUser = await res.json();
        console.log({ updatedUser });

        return updatedUser;
    }

```

```
}
```



```
import { localhostUserToModel } from '../mappers/localhost-user.mapper';
import { User } from '../models/user';

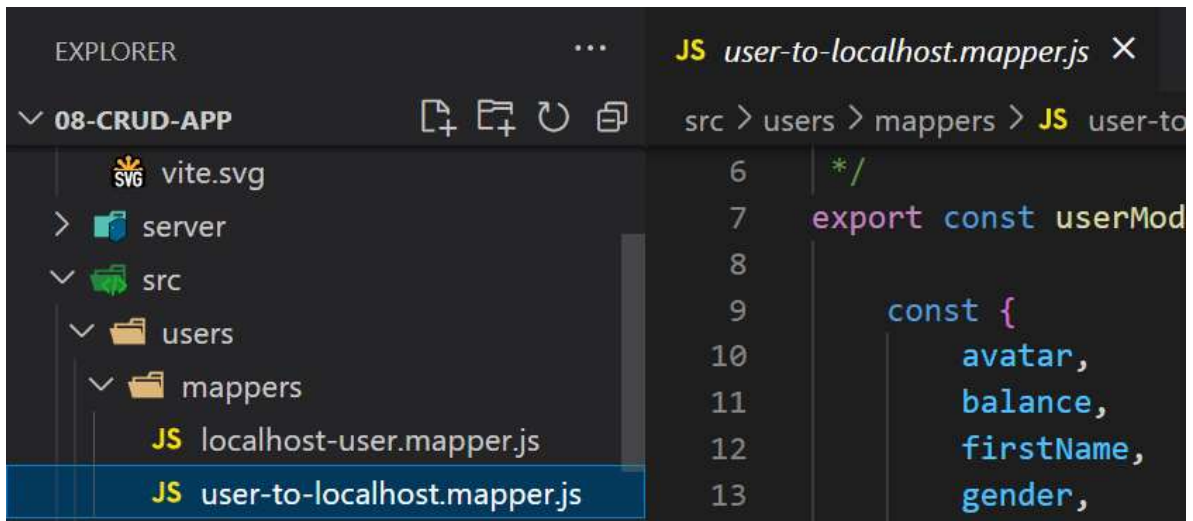
/**
 *
 * @param {String|Number} id
 * @returns { Promise<User> }
 */
export const getUserById = async( id ) => {

    const url = `${ import.meta.env.VITE_BASE_URL }/users/${ id }`;
    const res = await fetch(url);
    const data = await res.json();

    const user = localhostUserToModel( data );

    return user;
}
```

## Mapper - userModelToLocalhost



The screenshot shows the VS Code interface. On the left, the Explorer sidebar displays the project structure for '08-CRUD-APP'. The 'src' folder is expanded, showing 'users' and 'mappers' subfolders. The 'mappers' folder contains two files: 'localhost-user.mapper.js' and 'user-to-localhost.mapper.js', with the latter selected. The main editor on the right shows the content of 'user-to-localhost.mapper.js'. The file path 'src > users > mappers > JS user-to' is visible in the breadcrumb. The code in the editor includes a closing comment tag on line 6, an export statement on line 7, and the beginning of a constant object definition on lines 9-13.

```
JS user-to-localhost.mapper.js X
src > users > mappers > JS user-to
6      */
7      export const userMod
8
9      const {
10         avatar,
11         balance,
12         firstName,
13         gender,
```

```
import { User } from '../models/user';

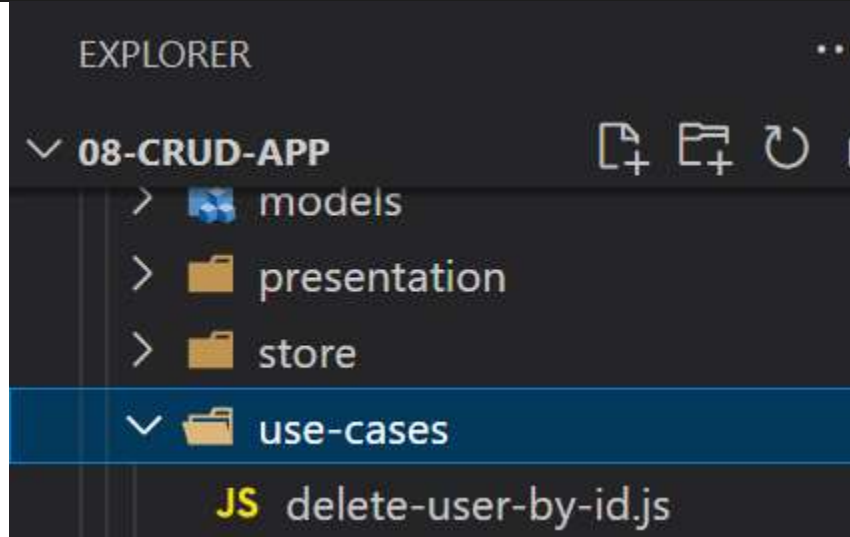
/**
 *
 * @param {User} user
 */
export const userModelToLocalhost = ( user ) => {

    const {
        avatar,
        balance,
        firstName,
        gender,
        id,
        isActive,
        lastName,
    } = user;

    return {
        avatar,
        balance,
        first_name: firstName,
        gender,
        id,
        isActive,
        last_name: lastName,
    }
}
```

```
}
```

## Eliminar un usuario



```
/**
 * @param {String|Number} id
 */
export const deleteUserById = async( id ) => {

  const url = `${ import.meta.env.VITE_BASE_URL }/users/${ id }`;
  const res = await fetch(url, {
    method: 'DELETE',
  });

  const deleteResult = await res.json();
  console.log({ deleteResult });

  return true;
}
```

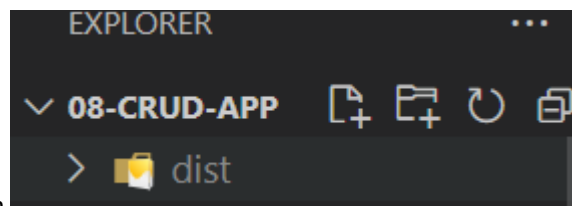
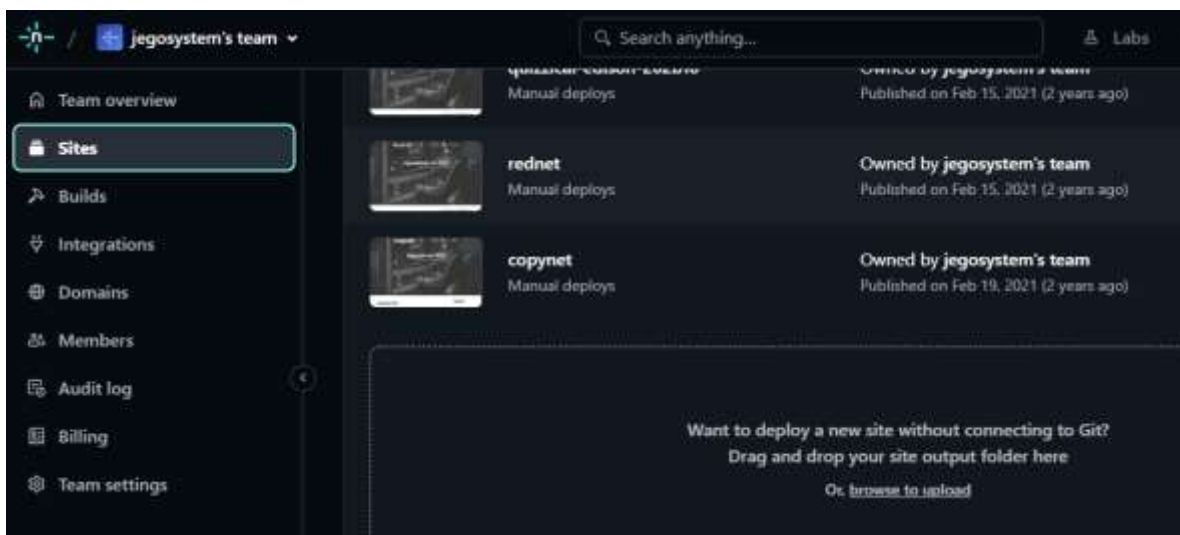
## Desplegar la app

En la terminal del vsc

```
> npm run build

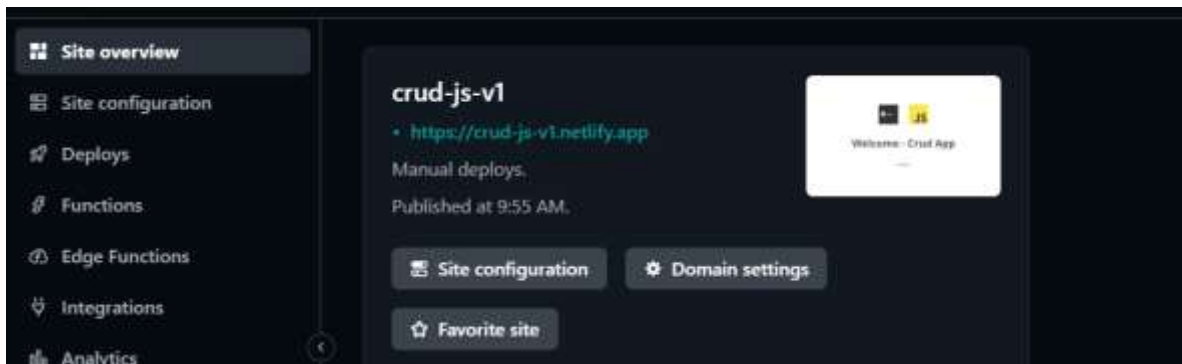
> crud-app@0.0.0 build
> vite build

vite v4.4.4 building for production...
✓ 25 modules transformed.
dist/index.html                0.45 kB | gzip: 0.30 kB
dist/assets/javascript-8dac5379.svg 1.00 kB | gzip: 0.60 kB
dist/assets/index-e5e2f849.css    1.86 kB | gzip: 0.88 kB
dist/assets/index-830f7ef2.js    6.82 kB | gzip: 2.43 kB
```

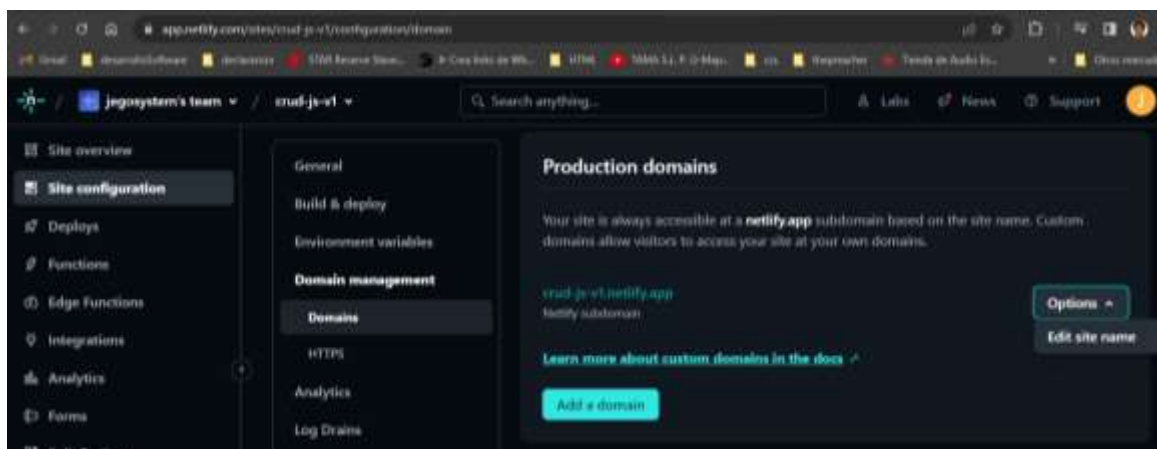


Arrastrar la carpeta

al netlify para desplegar todo

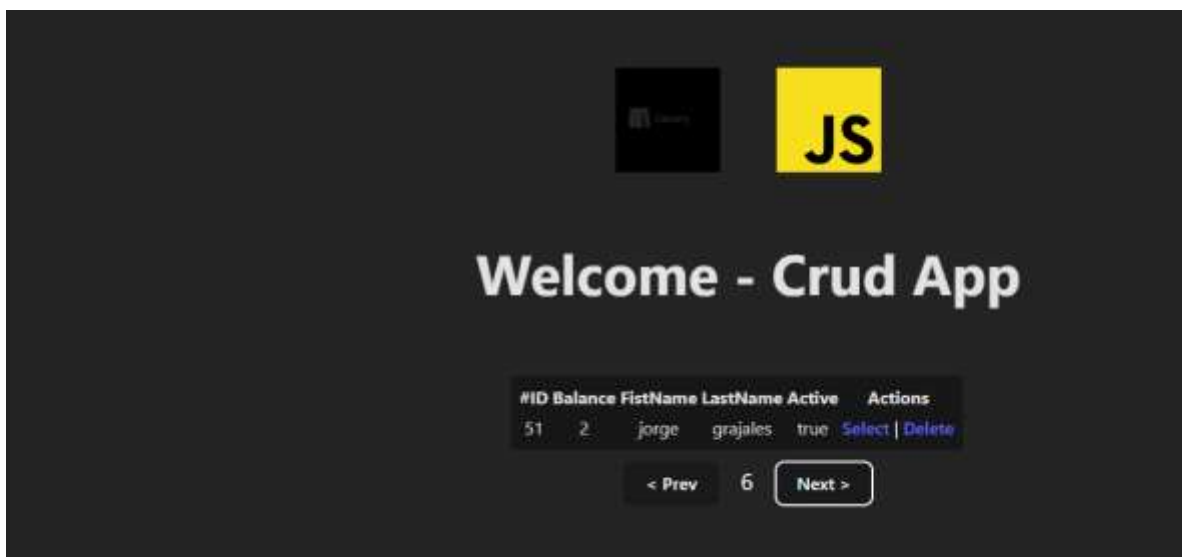


El domain se edito en domain setting, para cambiar la url



<https://crud-js-v1.netlify.app/>

se agregó un nuevo user para probar



Códigos Terminado y probados