

# C-R-U-D & The 6-Rule Process

*Jerico S. Baladhay*

Fundamental concept on how to create and understand CRUD in Node/Express web development.

Install these packages/libraries

Prior to installation of packages, you first need to install NodeJS  
<https://nodejs.org/en>

npm install express

npm install ejs

- EJS is a simple templating language that lets you generate HTML markup with plain JavaScript.
- To use:
  - `<% %>`
  - `<%= %>` to print the data

---

Create the “views” folder

Create “app.js”

your directory should look like this:

- node\_modules
- **views**
  - **index.ejs**
  - **add.ejs**
  - **edit.ejs**
- **app.js**
- package-lock.json
- package.json

---

First, you should understand what are the 4 common *HTTP methods*:

1. GET – Retrieve Data from the server
2. POST – Send Data to the server
3. PUT – Update existing resource
4. DELETE – Remove a source from the server

CRUD – Create, Retrieve, Update, Delete

There **6-rule** CRUD process that should be followed:

- 1. Get or Render Page/Data (GET)**
  - a. response render the view page and the data
- 2. Render Add Page (GET)**
  - a. response render the view page
- 3. Create Add Function (POST)**
  - a. Create new object
  - b. Use “*push*” method
- 4. Render Edit Page + ID (Uniform Resource Identifier) (GET)**
  - a. Convert the parameter from a string to integer
  - b. Search the array of data
  - c. Response renders the view page and the data
- 5. Create Edit Function (POST)**
  - a. Convert the parameter from a string to integer
  - b. Locate the index of the item in the array
  - c. Once index is found, request the body of the element so it will update
- 6. Create Delete Function (GET)**
  - a. Convert the parameter from a string to integer
  - b. Locate the index of the item in the array
  - c. Use “*splice*” method

Delete is “GET” due to the reason that the implemented process is not using Form, instead it uses “<a href= “delete/(id)”></a>” or link / href tag. Hence, it “gets” that particular link for it to delete the data, otherwise if Form is used, you can use Post.

We need to follow these 6 rules in creating a conventional CRUD application in web development, pertaining to NodeJS/Express.

Include this following code for server connection in *app.js*:

```
const express = require('express');
const app = express();
const port = 3000; // Set this to your desire port number e.g. 3001, 8000 etc

app.use(express.static('public'));
app.use(express.json());
app.use(express.urlencoded({ extended: true }));
app.set('view engine', 'ejs'); // Set the view engine to EJS

// -----
// ----- 6 RULES HERE -----
// -----

app.listen(port, () => {
  console.log(`Server is running on http://localhost:${port}`);
});
```

---

## Using Forms

```
<form action="" method="">
  ----- code here for html inputs/elements -----
</form>
```

Action = is where you will indicate the parameter or function

Method = is where you will determine if you will use: GET, POST, PUT, DELETE

---

## Key terms:

- **Objects**
- **res.redirect()**
- **res.render()**
- **array.splice**
- **array.push**
- **req.body.name**/*name of the element*

- **req.params.id***/name of the URI ID or :id*
- **app.get('/', (req,res) => { })**
- **app.post('/', (req,res) => { })**