

Express JS

Library v/s Framework:

Library: A library is a collection of pre-written code that can be used to perform specific tasks.

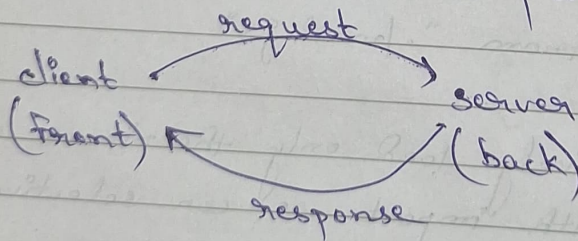
Eg: axios

Framework: A framework is a set of pre-written code that provides a structure for developing software applications.

Eg: express

Express:

- A Node.js web application framework that helps us to make web applications.
- It is used for server-side programming.



Work of Express:

- (i) listen for incoming request
- (ii) parse
- (iii) match response with routes
- (iv) response

Getting started with Express:



→ where we installed Express package
In ExpressJS directory, create index.js

Inside index.js :-

```
const express = require("express");
const app = express();
let port = 8080;
app.listen(port, () => {
  console.log('app is listening on port ' + port);
});
```

* NOTE:- Ports are the logical endpoints of a network connection that is used to exchange information between a web server and a web client.

Handling requests:-

```
app.use((req, res) => {
  console.log(req);
  console.log("request received");
});
```

→ Prints the req object

Sending a Response:-

request (req) response (res)

```
app.use((req, res) => {
  console.log("request received");
  let code = "<h1>Fruits</h1> <ul><li>apple</li><li>litchi</li></ul>";
  res.send(code);
});
```


Routing:-

- It is process of selecting a path for traffic in a network or between or across multiple networks.

```
app.get("/apple", (req, res) => {  
  res.send({  
    name: "apple",  
    color: "red",  
  });  
});
```

→ index.js:-

```
const express = require("express");  
const app = express();  
let port = 8080;
```

```
app.listen(port, () => {  
  console.log('app is listening on port ' + port);  
});
```

```
app.get("/", (req, res) => {  
  res.send("you contacted root path");  
});
```

```
app.get("/apple", (req, res) => {  
  res.send("you contacted apple path");  
});
```

```
app.get("/orange", (req, res) => {  
  res.send("you contacted orange path");  
});
```

```
app.get("*", (req, res) => {  
  res.send("New path");  
});
```

```
app.post("/", (req, res) => {  
  res.send("you sent a post request to root");  
});
```

Installing Nodemon:

node install nodemon

node install -g nodemon

Path Parameters:

```
const express = require("express");  
const app = express();  
let port = 8080;
```

```
app.listen(port, () => {  
  console.log('app is listening on port ' + port);  
});
```

```
app.get("/", (req, res) => {  
  res.send("hello, I am root");  
});
```



```

app.get("/:username/:id", (req, res) => {
  let { username, id } = req.params;
  let htmlStr = `<h1>Welcome to the page of @${username}</h1>`;
  res.send(htmlStr);
});

```

⑧ Query Strings:-

```

app.get("/search", (req, res) => {
  let { q } = req.query;
  res.send(`<h1>Search results for query: ${q}</h1>`);
});

```