**EXPRESS**

1. **Giới thiệu:**

* <https://expressjs.com/>
* Là một Web Framework chạy trên Nodejs, hỗ trợ mạnh mẽ về routing, middleware, quản lý request và response rất tốt và xử lý rất nhiều các chức năng khác.

1. **Cài đặt và cấu hình:**

|  |
| --- |
| npm install express –save |

|  |
| --- |
| const express = require('express');  const app = express();  app.get('/', (req, res) => {  res.send('Hello Word');  });  app.listen(3000, () => console.log('Server started on port 3000')); |

1. **Routing:**
2. Basic routing:

<https://expressjs.com/en/guide/routing.html>

app.METHOD(PATH, HANDLER)

app.get('/', function (req, res) {

res.send('Hello World!')

})

app.post('/', function (req, res) {

res.send('Got a POST request')

})

app.put('/user', function (req, res) {

res.send('Got a PUT request at /user')

})

app.delete('/user', function (req, res) {

res.send('Got a DELETE request at /user')

})

1. Route parameter:

app.get('/users/:userId/books/:bookId', (req, res) => {

res.send(req.params)

})

Route path: /users/:userId/books/:bookId

Request URL: http://localhost:3000/users/34/books/8989

req.params: { "userId": "34", "bookId": "8989" }

Lưu ý: Tên của các tham số phải được tạo thành từ các ký tự ([A-Za-z0-9\_]).

1. **Response methods:**

| **Method** | **Description** |
| --- | --- |
| [res.download()](https://expressjs.com/en/4x/api.html#res.download) | Prompt a file to be downloaded. |
| [res.end()](https://expressjs.com/en/4x/api.html#res.end) | End the response process. |
| [res.json()](https://expressjs.com/en/4x/api.html#res.json) | Send a JSON response. |
| [res.jsonp()](https://expressjs.com/en/4x/api.html#res.jsonp) | Send a JSON response with JSONP support. |
| [res.redirect()](https://expressjs.com/en/4x/api.html#res.redirect) | Redirect a request. |
| [res.render()](https://expressjs.com/en/4x/api.html#res.render) | Render a view template. |
| [res.send()](https://expressjs.com/en/4x/api.html#res.send) | Send a response of various types. |
| [res.sendFile()](https://expressjs.com/en/4x/api.html#res.sendFile) | Send a file as an octet stream. |
| [res.sendStatus()](https://expressjs.com/en/4x/api.html#res.sendStatus) | Set the response status code and send its string representation as the response body. |

1. **app.route()**

app.route('/book')

.get(function (req, res) {

res.send('Get a random book')

})

.post(function (req, res) {

res.send('Add a book')

})

.put(function (req, res) {

res.send('Update the book')

})

1. **express.Router:**

* Tạo file birds.js

var express = require('express')

var router = express.Router()

// define the home page route

router.get('/', function (req, res) {

res.send('Birds home page')

})

// define the about route

router.get('/about', function (req, res) {

res.send('About birds')

})

module.exports = router

var birds = require('./birds')

// ...

app.use('/birds', birds)

**use uri:** domain:port/birds/, domain:port/birds/about

1. **Static file**

app.use(express.static('public'))

Now, you can load the files that are in the *public*directory:

http://localhost:3000/images/kitten.jpg

http://localhost:3000/css/style.css

http://localhost:3000/js/app.js

http://localhost:3000/images/bg.png

http://localhost:3000/hello.html

app.use('/static', express.static('public'))

http://localhost:3000/static/images/kitten.jpg

http://localhost:3000/static/css/style.css

http://localhost:3000/static/js/app.js