

# 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.

## 2. 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'));
```

### 3. Routing:

#### a. 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')  
})
```

---

## b. 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\_]).

## 4. Response methods:

Method	Description
<a href="#"><u>res.download()</u></a>	Prompt a file to be downloaded.
<a href="#"><u>res.end()</u></a>	End the response process.
<a href="#"><u>res.json()</u></a>	Send a JSON response.
<a href="#"><u>res.jsonp()</u></a>	Send a JSON response with JSONP support.
<a href="#"><u>res.redirect()</u></a>	Redirect a request.
<a href="#"><u>res.render()</u></a>	Render a view template.
<a href="#"><u>res.send()</u></a>	Send a response of various types.
<a href="#"><u>res.sendFile()</u></a>	Send a file as an octet stream.
<a href="#"><u>res.sendStatus()</u></a>	Set the response status code and send its string representation as the response body.



---

## 5. 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')
  })
```

## 6. 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`

---

## 7. 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
```