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

5. app.route()

```javascript
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

```javascript
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
```

```javascript
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
```