



Express JS notes

Set up

To create a skeleton directory structure inside a folder, type `npx express-generator`

```
.
├── app.js
├── bin
│   └── www
├── package.json
├── public
│   ├── images
│   ├── javascripts
│   └── stylesheets
│       └── style.css
├── routes
│   ├── index.js
│   └── users.js
└── views
    ├── error.pug
    ├── index.pug
    └── layout.pug
```

Within the main folder type, `npm install` in order to install dependencies

To **run** the app, type `DEBUG=myapp:* npm start`

Basic routing

routing is how your application responds to different methods at different endpoints, eg GET /homepage, or POST /login

A route definition takes the following syntax `app.METHOD(PATH, HANDLER)`

- `app` is a reference to `express()`
- `METHOD` is the predefined method, eg GET or POST
- `PATH` is the URI path, eg /homepage

- HANDLER is the function called when the route has been activated

Examples:

GET

```
app.get('/', function (req, res) {  
  res.send('Hello World!')  
})
```

PUT

```
app.put('/user', function (req, res) {  
  res.send('Got a PUT request at /user')  
})
```

Static files

In order to serve static files, we use the in-built middleware `.static()` function which takes the following syntax, `express.static(root, [options])`, where **root** is the root directory in which all files can be accessed. Example:

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

If you wish to use multiple root directories, simply call it multiple times:

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

If you wish to change the virtual path of the URI, use

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

Now it appears that the items in the "public" folder belong to the "virtualFolder"

```
http://localhost:3000/virtualFolder/images/kitten.jpg  
http://localhost:3000/virtualFolder/css/style.css  
http://localhost:3000/virtualFolder/js/app.js  
http://localhost:3000/virtualFolder/images/bg.png  
http://localhost:3000/virtualFolder/hello.html
```

important note: The root folder you specify is relative to where the node command is ran, so it is safer to use an absolute path

```
app.use('/virtualFolder', express.static(path.join(__dirname, 'public')))
```