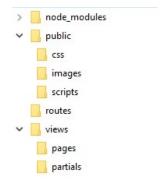




#### Putting it together...

• Directory and file structure



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#### ejsExample.js Importing requires packages

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```
var express = require('express');
var app = express();
var http = require('http');
var path = require('path');
var bodyParser = require('body-parser');
//var routes = require('./routes');
var members = require('./routes/members');
var mysql = require('mysql');
var connection = require('express-
myconnection');
```

password: 'database password',

database: 'database name'

port: 3306,

};

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# ejsExample.js





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#### ejsExample.js Set the express environment

```
// all environments
app.set('port', process.env.PORT || 1337);
app.set('views', path.join(__dirname, 'views'));
// set view engine to ejs
app.set('view engine', 'ejs');
```

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### ejsExample.js Defining pre-routing process & validation - 1



```
//Creating Router() object
var router = express.Router();

// Router middleware, mentioned it before defining routes.
router.use("/", function(req,res,next) {
   console.log("/" + req.method);
   next();
});

router.use("/home", function(req,res,next) {
   console.log("/home/" + req.method);
   next();
});

router.use("/about", function(req,res,next) {
   console.log("/about/" + req.method);
   next();
});
```

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#### ejsExample.js Defining pre-routing process & validation - 2

```
router.use("/sitemap", function(req,res,next) {
  console.log("/sitemap/" + req.method);
  next();
});

// This middle-ware will get the id param
// check if its 0 else go to next router.
router.use("/user/:id", function(req,res,next) {
  if(req.params.id == 0) {
    res.json({"message" : "You must pass ID other than 0"});
  }
  else next();
});
```

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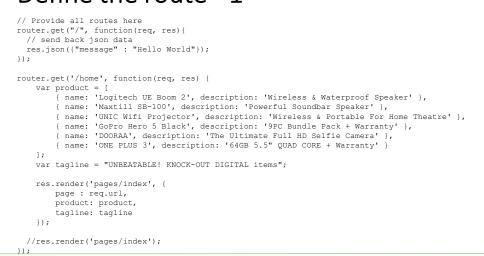
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### ejsExample.js Define the route - 1



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#### ejsExample.js Define the route - 2

```
router.get('/about', function(req, res) {
  res.render('pages/about', {
    page : req.url
  });
});

router.get('/sitemap', function(req, res) {
  res.render('pages/sitemap', {
    page : req.url
  });
});

router.get("/user/:id", function(req, res) {
  res.json({"message" : "Hello " + req.params.id});
});
```

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#### ejsExample.js Define the route - 3

```
router.get('/members', members.list);
router.get('/members/add', members.add);
router.post('/members/add', members.save);
router.get('/members/delete/:id', members.delete_member);
router.get('/members/edit/:id', members.edit);
router.post('/members/edit/:id', members.save edit);
```



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#### ejsExample.js Define express capabilities and objects

```
// parse application/x-www-form-urlencoded
      app.use(bodyParser.urlencoded({ extended: false }));
      // parse application/json
      app.use(bodyParser.json());
      app.use(express.static(path.join( dirname, 'public')));
      // connection peer, register as middleware type : single, pool and request
      app.use(connection(mysql, {
               host: 'localhost',
               user: 'root',
                password : 'darryl1975',
                port : 3306, //port mysql
                database: 'test'
           }, 'pool'));
      // Tell express to use this router with '/' before.
      // You can put just '/' if you don't want any sub path before routes.
ATA/NodeJS/95-8-96-signal Art("/", router);
                                                                                                          ISS
                                                  Part 5 – Professional Art
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```

ejsExample.js Handling routing exceptions



```
app.use(function(err,req,res,next) {
  console.log(err.stack);
  res.status(500).send({"Error" : err.stack});
});

// last middleware - handle 404 error
app.use("*", function(req, res){
  res.status(404).send('404');
});
```



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#### ejsExample.js Serving user with http server creation

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#### package.json

```
"name": "06",
"version": "1.0.0",
"description": "simple HTML website using nodeJS",
"main": "ejsExample03.js",
"scripts": {
 "test": "echo \"Error: no test specified\" && exit 1",
 "start": "nodemon ejsExample03.js"
"keywords": [
 "html",
 "nodeJS",
 "expressJS",
 "MVC"
"author": "Darryl Ng",
"license": "ISC",
"dependencies": {
 "express-myconnection": "^1.0.4"
```

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#### members.js Create operations - GET

```
exports.add = function(req, res) {
  res.render('pages/add_member', {page_title:"Add member - Node.js"});
};
```

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#### members.js Create operations - POST



```
exports.save = function(req,res){
   var input = JSON.parse(JSON.stringify(req.body));
   console.log(input);
   req.getConnection(function (err, connection) {
     if (err)
       console.log("Error establishing connection: %s", err);
     var data = {
         surname
                       : input.surname,
         fname
                       : input.fname,
         secondname
                      : input.secondname
     var query = connection.query("INSERT INTO member SET ? ",data, function(err, rows)
       if (err)
         console.log("Error inserting : %s ",err );
       res.redirect('/about');
   });
```

} ;
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#### members.js Read operations

```
/*
  * GET members listing.
  */
exports.list = function(req, res) {
  var pg = req.url;
  req.getConnection(function(err,connection) {
     var query = connection.query('SELECT * FROM member',function(err,rows)
     {
        if(err)
            console.log("Error Selecting : %s ",err );
        res.render('pages/members', {page: pg, page_title:"members - Node.js", data:rows});
     });
  });
};
```

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### members.js Update operations - GET



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#### members.js **Update operations - POST**

```
exports.save edit = function(req,res) {
    var input = JSON.parse(JSON.stringify(req.body));
    var id = req.params.id;
    req.getConnection(function (err, connection) {
        var data = {
            surname
                        : input.surname,
            fname
                        : input.fname,
            secondname : input.secondname
        connection.query("UPDATE member set ? WHERE mid = ? ",[data,id], function(err, rows)
              console.log("Error Updating : %s ",err );
         res.redirect('/about');
        });
    });
```

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#### members.js **Delete operations - POST**

} ;
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```
exports.delete_member = function(req,res) {
     var id = req.params.id;
     req.getConnection(function (err, connection) {
        connection.query("DELETE FROM member WHERE mid = ? ",[id], function(err, rows)
          if(err)
            console.log("Error deleting : %s ",err );
          res.redirect('/about');
       });
     });
};
```

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## Partial Pages - head.ejs

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## Partial Pages - header.ejs



```
<% if (page == '/about') { %>
<!-- views/partials/header.ejs -->
                                                                class="active">
   <nav class="navbar navbar-inverse navbar-static-top">
                                                                <% } else { %>
     <div class="container">
                                                                <1i>>
       <a class="navbar-brand" href="/">Simple Website</a>
                                                                <% } %>
       <a href="/about">About</a>
         <% if (page == '/home') { %>
                                                                class="active">
                                                                <% if (page == '/sitemap') { %>
         <% } else { %>
                                                                class="active">
         <1i>>
                                                                <% } else { %>
         <% } %>
                                                                <1i>>
          <a href="/home">Home</a>
                                                                <% } %>
         <a href="/sitemap">Sitemap</a>
         <% if (page == '/members') { %>
                                                                class="active">
                                                              <% } else { %>
                                                            </div>
         <1i>>
                                                          </nav>
         <% } %>
          <a href="/members">Members</a>
```

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## Partial Pages - footer.ejs

```
<!-- views/partials/footer.ejs -->
```

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# Home page index.ejs



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// DOG/>
// html>
2/html>
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## Home page about.ejs

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# Home page sitemap.ejs



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#### **CRUD** pages

- members.ejs
- add\_member.ejs
- edit\_member.ejs



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#### **Additional Reading References**

- <a href="https://code.ciphertrick.com/2015/02/25/get-post-requests-in-node-js-using-express-4/">https://code.ciphertrick.com/2015/02/25/get-post-requests-in-node-js-using-express-4/</a>
- https://codequs.com/p/HJBfJxMt/restful-api-with-node-js-andexpress-4/
- https://codeforgeek.com/2015/01/nodejs-mysql-tutorial/
- https://www.tutorialspoint.com/nodejs/nodejs scaling application.h tm

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