



Install Node JS

for operating systems windows

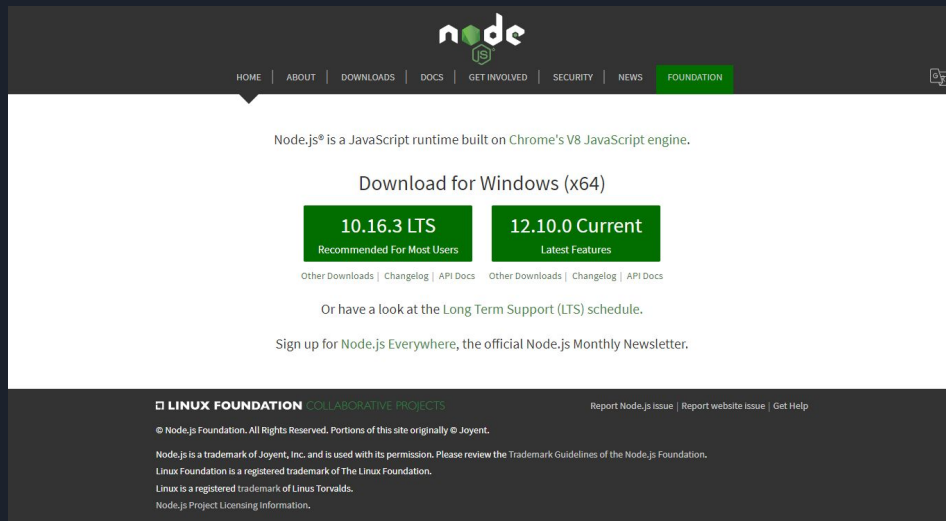
What will be received from this course

- ติดตั้ง nodejs on Os Windows
- เข้าใจ nodejs basic
- เข้าใจ npm basic
- เข้าใจการนำ mysql มาใช้ร่วมกับ nodejs
- สามารถเขียน rest api ด้วย nodejs ได้
- สามารถทำ Authentication ด้วย jwt & nodejs
- สามารถเขียน nodejs connect mysql และทำงานร่วมกับ jwt

Install node js to your pc

Download Node js at url
below this

<https://nodejs.org/en/>



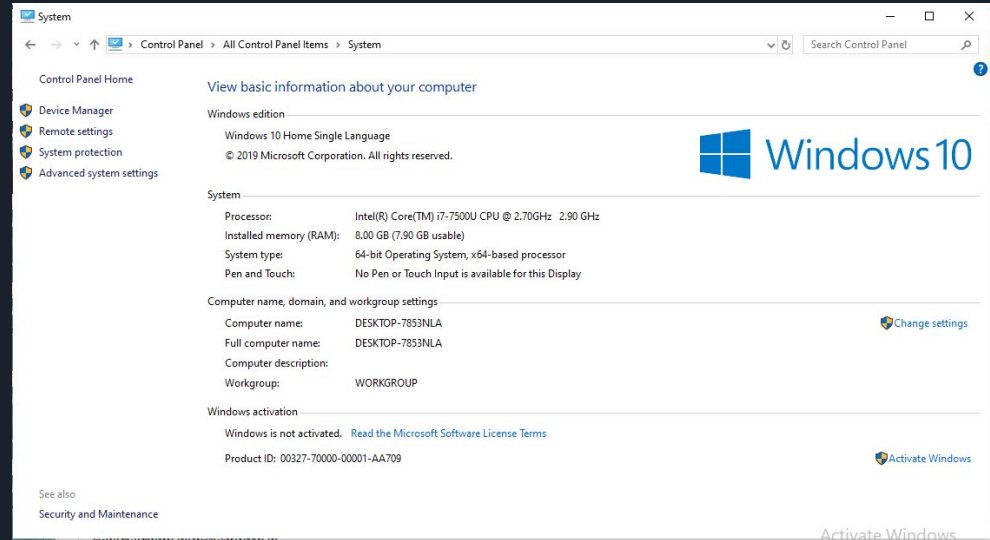
*Note : recommended download LTS version

Add Path to Environment Variables

After installation

Copy & Past this path to window

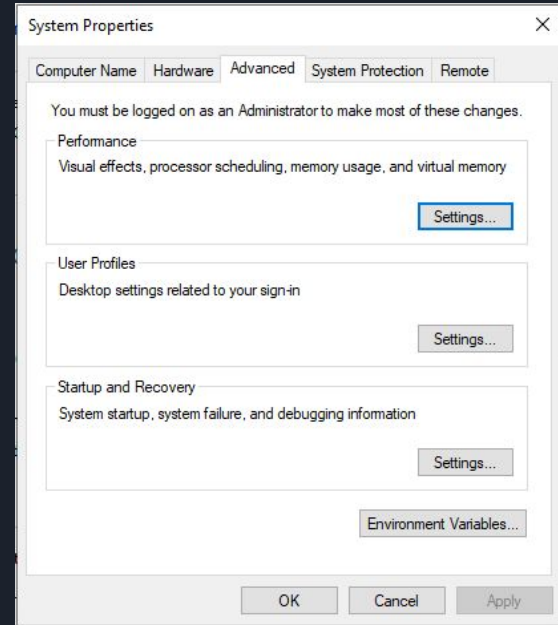
Control Panel\All Control Panel
Items\System



Add Path to Environment Variables

1.click “Advanced system settings”

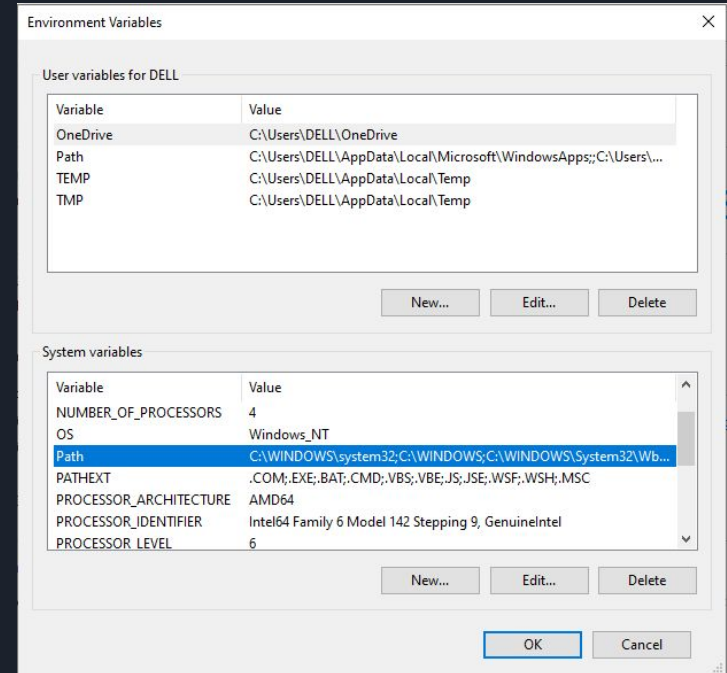
2.click “Environment Variables”



Add Path to Environment Variables

1.click Variable “Path” in “System Variables”

2.click “Edit” in “System Variables”



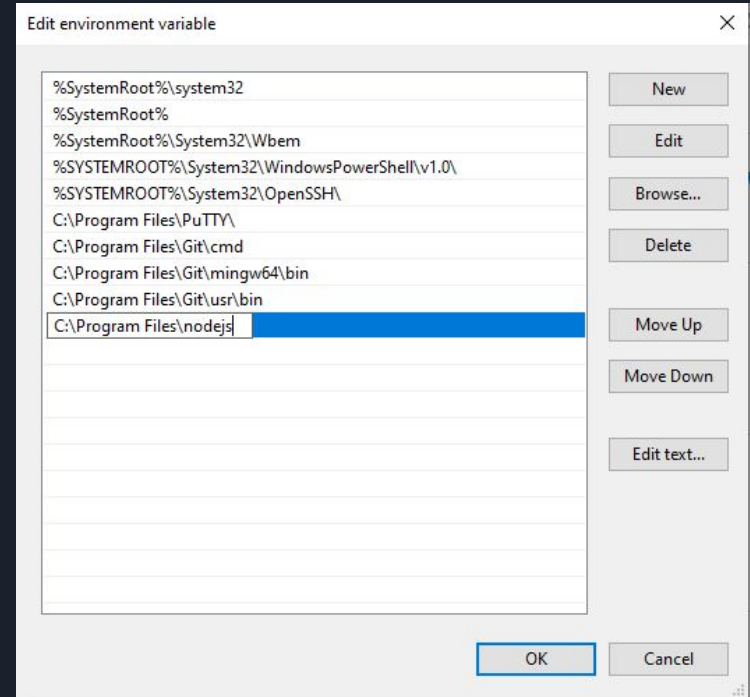
Add Path to Environment Variables

1.click button “New”

2.Add path

C:\Program Files\nodejs\

3.click “OK”





Check version node & npm

Check version nodejs

```
node -v
```

Check version npm

```
npm -v
```

*Note : npm is a package manager for node.js package or like modules



Get Standard Project & Editor

Download repository on github

<https://github.com/tomatedev/node-mysql.git>

Download Editor Visual Studio Code

<https://code.visualstudio.com/>



Install package express

Install package express

```
npm i --save-dev express
```

Command Run

```
node server.js
```

Or Global Package

```
npm i -g express
```

Use package express

```
const express = require('express');
```

*Note : package installed will save at package.json



Install package nodemon

Install package nodemon

```
npm i --save-dev nodemon
```

Or Global Package

```
npm i -g nodemon
```

Command Run

```
nodemon server.js
```

*Note : package installed will save at package.json



Install package mysql

Install package mysql

```
npm i --save-dev mysql
```

Or Global Package

```
npm i -g mysql
```

Use package mysql

```
const mysql = require('mysql');
```

*Note : package installed will save at package.json



Create Route

Step 1

Create folder “routes”

Step 2

Create file users.js in folder “routes”

Step 3

Add code use module router in express package

```
const express = require('express');  
const router = express.Router();
```



Create Route

Step 1

Add Code in file Server.js

```
const users = require('./routes/users');
```

Step 2

Use variable users

```
app.use('/api/users', users);
```



Use body-parser module

Step 1

Add Code in file Server.js

```
const bodyParser = require('body-parser');
```

Step 2

Use variable bodyParser

```
app.use(bodyParser.urlencoded());
```



Install package jwt

Install package for create api

```
npm i --save-dev jsonwebtoken passport passport-jwt
```

*Note : package installed will save at package.json



Handle Structure In Project

Step 1

Create folder "config"

Step 2

Create file database.js in folder "config" and add code this file

```
const mysql = require('mysql');  
const db = mysql.createConnection({  
  host: "your host",  
  user: "your user",  
  password: "your password",  
  database: "your database"  
});  
module.exports = db;
```



Handle Structure In Project

Create key

Create file key.js in folder “config” and add code in this file

```
module.exports = {  
  secretOrKey: 'secret'  
}
```



Handle Structure In Project

Create Passport

Create file passport.js in folder “config” and add code in this file

Create passport-jwt module

```
const jwtStrategy = require('passport-jwt').Strategy;  
const ExtractJwt = require('passport-jwt').ExtractJwt;  
const keys = require('./key');  
const db = require('./database');
```

*Note : copy this file in ./section4/ex1-passport.js



Use Passport Module

use passport

Add code in server.js

```
const passport = require('passport');
```

use passport in folder config

```
app.use(passport.initialize());
```

```
require('./config/passport')(passport);
```



Authentication

login

Copy code in file `./section5/ex1-authentication.js`

past to

`./routes/users.js`

use `jwt&passport&key` in file `./routes/users.js`

```
const jwt = require('jsonwebtoken');
```

```
const passport = require('passport');
```

```
const keys = require('../config/key');
```



Authentication

Get user authenticate

```
router.get('/', passport.authenticate('jwt', { session: false })), (req, res) => {  
  db.query("SELECT * FROM users",  
    function (err, result) {  
      if (err) throw err;  
      res.json(result);  
    })  
});
```



Authentication

Get current user

```
router.get('/current', passport.authenticate('jwt', { session: false}), (req, res) => {  
  var sql = "SELECT * FROM Users WHERE id='"+req.user.id+"'";  
  db.query(sql,  
    function (err, user, fields) {  
      res.status(200).json({  
        code: res.statusCode,  
        message: 'Current Users',  
        data: user  
      });  
    });  
});
```



Join table

```
router.get('/post', passport.authenticate('jwt', { session: false }), (req, res) => {  
  var sql = "SELECT posts.id,posts.message AS post FROM users JOIN posts ON  
posts.user_id = '"+req.user.id+"'";  
  db.query(sql,  
    function (err, result) {  
      res.status(200).json({  
        code: res.statusCode,  
        message: 'Post Of User',  
        data: result  
      });  
    });  
});
```