**Node Mysql Project**

* **BACK-END, CREATING THE SERVER**

1. We create an empty folder, we open the terminal and we run the command *npm i --yes*.
2. We create the folder src and we install the dependencies: bcryptjs, connect-flash, express, express-handlebars, express-mysql-session, express-validator, morgan, mysql, passport, passport-local, timeago.js. We also install nodemon as a devDependencie with the command *-D nodemon.*
3. We create the index.js file into src. We require the express module *const express = require('express')*, we initialize it *const app = express()*, and make some configurations *app.set('port', process.env.PORT || 4000)*. Then we start the server *app.listen(app.get('port'), () => { console.log('Server on port')}*.
4. Now we go with the Routes, we create the routes folder within authentication.js, index.js and links.js files into src folder. We go back to the src folder and we configure the routes in the 'main' index.js (not the one into routes folder):  
    - *app.use(require('./routes'))   
    - app.use(require('./routes/authentication'))   
    - app.use('links', require('./routes/links'))*
5. To check that everything is working, we add an empty route on the index.js into routes folder. We require express *const express = require('express')*, we call to the Router method const router = express.Router(), we create a get request *router.get('/', (req, res) => { res.send('Hello world!')})* and we export the module *module.exports = router.*
6. We start the server with the command *npm run dev* we go to the browser and we place the url localhost:4000/links.

* **MYSQL CONNECTION**

1. We create the database.js file into src folder. We require the mysql module  *const mysql = require('mysql')* we create the keys.js file and we fill it with the login details to our mysql:   
     
    *module.exports= {  
    database:{  
    host: 'localhost',  
    user: 'root',  
    password: '',  
    database: 'database\_links'  
    }  
    }*
2. In to database.js we require the object database from the file keys that we've created on the previous step. *const { database } = require('./keys')*
3. We call to the mysql method createPool *const pool = mysql.createPool(database).* We require the module promisify from util module *const { promisify } = require('util').*
4. We do the connection and we check some mistakes:  
      
   *pool.getConnection((err, connection) => {  
    if(err){ if(err.code==='PROTOCOL\_CONECTION\_LOST'){  
    console.log('DATABASE CONECTION WAS CLOSED')  
    }  
    if(err.code==='ERR\_CON\_COUNT\_ERROR'){  
    console.log('DATABASE HAS TOO MANY CONNECTIONS')  
    }  
    if(err.code==='ECONREFUSED'){  
    console.log('DATABASE CONECTION WAS REFUSED')  
    }  
    }  
    if(connection) connection.release()  
    console.log('DB is Connnected')  
    return  
   })*
5. We call to the promisify method *pool.query = promisify(pool.query)*
6. We export the module *module.exports = pool*

* **VIEWS (TEMPLATE ENGINE)**

* **INSERTING IN MYSQL**
* **SELECTING FROM MYSQL**
* **DELETING IN MYSQL**
* **UPDATING IN MYSQL**
* **CONNECT-FLASH MESSAGGES AND NAVIGATION**
* **REGISTER USERS IN MYSQL**
* **LOGIN USER IN MYSQL**
* **PROTECTING SERVER ROUTES**
* **PRIVATE DATA**