**CRUD without form.js**

const mongoose = require("mongoose");

// connecting to database

const Connection = mongoose.connect("mongodb://localhost/Class" , { useNewUrlParser: true });

Connection.then(function(){

console.log("Connected to Database");

});

Connection.catch(function(err){

console.log("Error in Connection "+err);

});

// creating schema

const StudentSchema = new mongoose.Schema({

name : String ,

age : Number ,

city : String ,

marks : Number ,

hobbies : [String]

});

// creating model

const Students = mongoose.model("Students" , StudentSchema );

const StudentInfo = new Students({

name : "Sanan" ,

age : 22 ,

city : "Kotla ",

marks : 906 ,

hobbies : ["Programming" , "Hacking" , "Cricket" , "Games"]

});

/\* ================ Insert =====================\*/

//const result = StudentInfo.save();

// result.then(function(res){

// console.log(res);

// });

/\* ================ Show =====================\*/

//const AllStudents = Students.find();

//

//AllStudents.then(function(Result){

// console.log(Result);

//});

/\* ================ Update =====================\*/

//Students.findById("5cda29f40d581b492765e50b").then(function(res){

// res.set({

// "name": "Ali Ali",

// age:34

// });

//

//// res.name = "Ali";

//// res.age = 32;

////

//

//

// res.save();

//});

/\* ================ Update Second Method =====================\*/

//const Updated = Students.update({"\_id":"5cda29f40d581b492765e50c" } , {$set : {"name":"Sanan Ali"}});

//Updated.then(function(res){

// console.log(res);

//});

//const NewUpdated = Students.findByIdAndUpdate("5cda29f40d581b492765e50c" , {$set: {

// name: "Sanan",

// age :24

//}});

//

//NewUpdated.then(function(res){

// console.log(res);

//});

/\* ================ Delete =====================\*/

//

//const res = Students.deleteOne({"\_id":"5cda2a130d581b492765e50e"});

//res.then(function(result){

// console.log(res);

//});

**Using Static Files and PUG**

**indexNew.js**

const express = require("express");

const app = express();

const portNumber = process.env.PORT || 8000;

const path = require("path");

// setting view engine

app.set("view engine" , "pug");

app.set("views" , "./views");

// setting path to use static files

app.use(express.static(path.join(\_\_dirname , "public")));

app.use("/" , function(req , res , next){

console.log("This is the Middle");

next();

});

// rendering pug file

app.get("/" , function(req , res ){

res.render('index' , { title: 'This is Pug' , heading: 'Welcome to Pug'});

});

// displaying a page

app.get("/About" , function(req , res){

res.send("<h1>About Us</h1>");

});

app.listen(portNumber , function(){

console.log("Listening on Port 8000");

});

**Login and SignUp Form with MongooDB.js**

const express = require("express");

const app = express();

const mongoose = require("mongoose");

// connecting to database

const Connection = mongoose.connect("mongodb://localhost/Last" , { useNewUrlParser: true });

// using body paser

var bodyParser = require('body-parser');

app.use(bodyParser.json());

app.use(bodyParser.urlencoded({ extended: true }));

// checking Connection

Connection.then(function(){

console.log("Connected");

});

// creating a SignUp form

var SignUpForm = '<h1>Sign Up </h1><form action="SignUp" method="post">Name : <input type="text" name="name"><br><br> Email : <input type="text" name="email"><br><br> Age : <input type="number" name="age"><br><br> Department : <select name="department"><option value="CS">Computer Science</option><option value="SE">Software Engineering</option><option value="IT">Information Technology</option><option value="BBA">BBA</option></select><br><br> Password : <input type="password" name="password"><br> <input type="submit"></form>';

// creating SignIn form

var SignInForm = '<h1>Sign In Here </h1><form action="Check" method="post">Email : <input type="Email" name="email"><br><br> Password : <input type="password" name="password"><br> <input type="submit" value="Login"></form>';

// creating Schema

const UsersSchema = mongoose.Schema({

name : String ,

age : Number ,

email : String ,

department : String ,

password : String

});

// creating model

const MyModel = mongoose.model("users" , UsersSchema);

// showing SignUp form

app.get("/register" , function(req , res){

res.send(SignUpForm);

});

// getting SignUp data

app.post("/SignUp" , function(req , res){

const newUser = MyModel({

name : req.body.name ,

age : req.body.age ,

email : req.body.email ,

department : req.body.department ,

password : req.body.password

});

// saving data to database

newUser.save().then(function(res){

console.log(res);

}).catch(function(res){

console.log("error");

});

res.send(req.body);

});

// Showing Login Form

app.get("/login" , function(req , res){

res.send(SignInForm);

});

// just a dashboard page

app.get("/Dashboard" , function(req , res){

//res.redirect("/test");

res.send("<h1>Welcome to Dashboard </h1>");

});

// checking login password is valid or not

app.post("/Check" , function(req , res){

var userEmail = req.body.email;

var userPassword = req.body.password;

MyModel.find({email : userEmail , password : userPassword}).then(function(result){

if(result.length!=0){

res.redirect("/Dashboard");

}

else{

res.send("<h1 style='color:red'>Wrong Email or Password! Please Try Again.</h1>");

}

}).catch(function(reee){

res.send(reee);

});

});

const PortNumber = process.env.PORT || 3000;

app.listen(PortNumber, function(){

console.log("Listening to Port "+PortNumber);

});

**Sending Email.js**

const events = require("events");

const http = require("http");

const nodemailer = require("nodemailer");

// creating object

var Info = {

name: "Waseem Ali" ,

age : 34 ,

city : "Gujrat"

};

//sending email with Nodemailer

var transporter = nodemailer.createTransport({

service: "gmail" ,

tls: { rejectUnauthorized: false } ,

auth : {

user: "hacker.sanan5@gmail.com" ,

pass: "USE YOUR PASSWORD"

}

});

var mail\_information = {

from : "hacker.sanan5@gmail.com" ,

to : "Alisanan620@gmail.com" ,

subject : "Testing Nodemailer",

text : "Welcome to NodeMailer"

};

transporter.sendMail(mail\_information , function(err , info){

if(err){

console.log("Error in sending email " + err);

}

else{

console.log("Mail has been sent to " + mail\_information.to);

console.log("Information is " + info.response);

}

});

server.listen(8080);

**Uploading Files.js**

const events = require("events");

const fs = require("fs");

const formidable = require("formidable");

const http = require("http");

// showing a form

var formData = '<form action="fileupload" method="post" enctype="multipart/form-data"> <input type="file" name="TestFile"><br> <input type="submit"></form>';

const server = http.createServer(function(req , res){

if(req.url=="/"){

res.writeHead(200 , { "content-type": "text/html" });

res.write(formData);

res.end();

}

// file upload code

if(req.url=="/fileupload"){

var form = new formidable.IncomingForm();

form.parse(req , function(err , fileds , files){

var fileName = files.TestFile.name;

var oldpath = files.TestFile.path;

var newPath = "C:\Users\Sanan Ali\Desktop\Node"+fileName;

fs.rename(oldpath , fileName , function(err){

if(err){

res.write("Error in Uploading File "+err);

}

});

res.write("File Uploaded Successfully." );

res.write("File Detail "+ fileName );

res.end();

});

}

});

server.listen(8080);