# Department of Computing

**CS-213: Advanced Programming**

**Class: BSCS 7B**

# Lab 07: Express JS

**Date: 17 October, 2019**

**Time: 10:00-01:00pm**

**Ishmal Tahir**

**225868**

# Instructor: Dr. Sidra Sultana

**Lab Engineer: Ms. Ayesha Asif**

# 

# Lab 07: Express JS

**Introduction**

Express is a minimal and flexible Node.js web application framework that provides a robust set of features to develop web and mobile applications. It facilitates the rapid development of Node based Web applications.

**Objectives**

This lab will get you familiar with the Node Express JS environment.

**Lab Tasks**

**Task 1:** Create Index.html file in the root folder of your application and write the HTML FORM POST method code in it. Modify server.js to handle home page requests as well as the input sent by the HTML form.

**Hint:** To handle HTTP POST request in Express.js version 4 and above, you need to install middleware module called body-parser. The middleware was a part of Express.js earlier but now you have to install it separately. This body-parser module parses the JSON, buffer, string and url encoded data submitted using HTTP POST request. Install body-parser using NPM as shown below.

**Task 2:** Create a file uploader form in an html file. This form has method attribute set to POST and enctype attribute is set to multipart/form-data. Modify server.js to handle home page requests as well as file upload.

**Task 3:** By using the Pug templating engine create an HTML registration form.

|  |
| --- |
| Solution |
| Task1:server.js var express = require('express');  var app = express();  var bodyParser = require('body-parser');  //Takes urlencoded form data in an express.js request object and turns it into a nested json object  var urlencodedParser = bodyParser.urlencoded({ extended: false })  //allows to serve static files  app.use(express.static('public'));  app.get('/index.html', function (req, res) {  res.sendFile( \_\_dirname + "/" + "index.html" );  })  app.post('/task1', urlencodedParser, function (req, res) {  response = {  first\_name:req.body.first\_name,  last\_name:req.body.last\_name,  age:req.body.age,  email:req.body.email  }; // JSON format  console.log(response);  res.end(JSON.stringify(response));  })  var server = app.listen(8081, function () {  var port = server.address().port  console.log("Running at port: %s",port );  }) Index.js <html>  <body>  <form action = "http://127.0.0.1:8081/task1" method = "POST">  First Name: <input type = "text" name = "first\_name"> <br>  Last Name: <input type = "text" name = "last\_name"> <br>  Age: <input type = "number" name = "age"> <br>  Email: <input type = "email" name = "email"> <br>  <input type = "submit" value = "Submit">  </form>  </body>  </html>       Task2:server.js var express = require('express');  var app = express();  var fs = require("fs");  var path=-require("path");  var bodyParser = require('body-parser');  var multer = require('multer');  var upload=multer({ dest: '/temp'})  app.get('/index.html', function (req, res) {  res.sendFile(\_\_dirname + "/" + "index.html" );  })  app.post('/file\_upload', upload.single('file'),function (req, res) {  console.log(req.file);  res.send("file recieved"); })    var server = app.listen(8081, function () {  var host = server.address().address  var port = server.address().port    console.log("Example app listening at http://%s:%s", host, port)  }) Index.html <html>  <body>  <h3>File Upload:</h3>  Select a file to upload: <br />    <form action = "http://127.0.0.1:8081/file\_upload" method = "POST" enctype = "multipart/form-data">  <input type="file" name="file" size="50" />  <br />  <input type = "submit" value = "Upload File" />  </form>    </body>  </html>     Task 3:Task3.pug html  head  title "Form"  body  form(action="/", method="POST", enctype="multipart/form-data")  div  label First Name:  input(name="fname", type="text")  br  div  label Last Name:  input(name="lname", type="text")  br  div  label Registration No:  input(name="regno", type="text")  br  input(type="submit") **server.js** var express = require("express")  var bodyParser = require("body-parser")  var multer = require("multer")  var upload = multer()  var app = express()  app.get("/", function (req, res) {  res.render("task3")  })  app.use(bodyParser.json())  app.use(bodyParser.urlencoded({ extended: true }))  app.use(upload.array())  app.set("view engine", "pug")  app.set("views", "./views")  app.post('/', function (req, res) {  console.log(req.body)  res.send("Name: " + req.body.fname + " <br>Last Name: " + req.body.lname + " <br>Reg No: " + req.body.regno)  })  app.listen(3000)        Task Output Screenshot: |

### Deliverables

Compile a single word document by filling in the solution part and submit this Word file on LMS. This lab grading policy is as follows: The lab is graded between 0 to 10 marks. The submitted solution can get a maximum of 5 marks. At the end of each lab or in the next lab, there will be a viva/quiz related to the tasks. You must show the implementation of the tasks in the designing tool, along with your complete Word document to get your work graded. You must also submit this Word document on the LMS. In case of any problems with submissions on LMS, submit your Lab assignments by emailing it to Ms. Ayesha Asif: [ayesha.asif@seecs.edu.pk](mailto:ayesha.asif@seecs.edu.pk).