<u>Express JS</u>

Miscellaneous Tasks

1. **Write express js script to perform tasks as asked below. (Get Method)**
    1. Create one HTML file which contains two number type input fields, one dropdown which contains options like (select, addition, subtraction, multiplication, division) and one submit button.
    2. The input fields must contain the value greater than 0 else it will give a message "Please enter the valid message". Also, user must select any of the formula from the dropdown else give a message "You have not selected any formula". (Message will be displayed on "/calc" page.)
    3. If one formula is selected and numbers are entered then respective calculations will be performed on the page "/calc".
    4. Use get method to request data.

/Backend/calc.js

```
var expr = require("express");
var app = expr();

app.use(expr.static("../css"));
app.use(expr.static("../html",{index:'1.html'}));

app.get("/calc",(req,res,next)=>{
    res.set("content-type","text/html");
    var n1 = parseInt(req.query.n1);
    var n2 = parseInt(req.query.n2);
    if ((n1>0) && (n2>0)) {
        if(req.query.formula == "addition"){
            a = n1+n2;
            res.write("<h1>Addition is : " + a + "</h1>");
        }
        else if(req.query.formula == "subtraction"){
            s = n1-n2;
            res.write("<h1>Subtraction is : " + s + "</h1>");
        }
        else if(req.query.formula == "multi"){
            m = n1*n2;
            res.write("<h1>Multiplication is : " + m + "</h1>");
        }
        else if(req.query.formula == "div"){
            d = n1/n2;
            res.write("<h1>Division is : " + d + "</h1>");
        }
        else{
            res.write("<h1>You have not selected any formula.</h1>");
        }
    }else{
```

```
      res.write("<h1>Please enter the valid number/s.</h1>");
   }
   res.send()
})
app.listen(6012);
```

/css/t1.css

```css
.lj_form{
   background-color: rgb(158, 158, 219);
}
```

/frontend/calc.html

```html
<html><head>
   <link rel="stylesheet" href="/t1.css">
</head>
<body>
   <form action="/calc" method="get" class="lj_form">
   <fieldset>
      <legend>Calculator:</legend>
         <label for="n1">Enter Number1:</label>
         <input type="number" name="n1"><br><br>

         <label for="n2">Enter Number2:</label>
         <input type="number" name="n2"><br><br>

         <label for="formula">Formula: </label>
         <select name="formula" id="formula">
            <option value="">Select formula</option>
            <option value="addition">Addition</option>
            <option value="subtraction">Subtraction</option>
            <option value="multi">Multiplication</option>
            <option value="div">Division</option>
         </select><br><br>

         <input type="submit" value="Submit">
   </fieldset>
   </form>
</body></html>
```

Output:

2. Write express script to get form data using <u>post method</u> and display First name in Red color, Password in Green Color and Gender in Black color.

trail.html (file in public folder)

```
<form method="post" action="/process-post">
<fieldset>
 <legend style="color:blue;text-align:center" >Log In </legend>
 </br>
 <lable> User Name</lable>
        <input type="text" name="firstname"/>
</br>
<lable> Password</lable>
        <input type="password" name="password"/>
</br>
<lable> Gender</lable>
        <input type="radio" name="r1" value="Male">Male</input>
        <input type="radio" name="r1" value="Female">Female</input>

</br>
<lable> Comment</lable>
        <textarea rows="5" cols="15" name="comment"> </textarea>
</br>
        <input type="Submit">
        <input type="Reset">
</fieldset>
</form>
```

trial.js   (file in src folder)

```
const expr=require("express")
const app=expr();

app.use(expr.urlencoded({extended:false}))

app.use(expr.static('../public',{index:"trial.html"}))
  app.post("/process-post",(req,res)=> {
     res.write(`<h1 style="color:red">Firstname=${req.body.firstname}</h1>
           <h1 style="color:green">Password=${req.body.password}</h1>
           <h1>Gender=${req.body.r1}</h1>`)
     res.end()
   })
app.listen(5000)
console.log("Server is running")
```

Output:

After filling form on localhost:5000 with name:"abc", password: "abcd", gender: Male

Output on: http://localhost:5000/process-post

Firstname=abc

Password=abcd

Gender=Male

3. **Write express js script to perform the tasks as asked below. (Post method)**

1) Create one HTML file named ljform.html and add one form which contains username, password and submit button. Data should be submitted by HTTP post method.

2) Submit button is of black color with white text. (External CSS)

3) On home page form should be displayed and while submitting the form, on next page named "/login" if username is admin then it will display "Welcome admin" else display "Please login with Admin name".

In 3.js file in src folder

```
var expr = require("express");
var app = expr();
app.use(expr.urlencoded());
app.use(expr.static('../public',{index: ' ljform.html'}));
app.post("/login",(req,res)=>{
   if( req.body.uname == 'admin' ){
      res.write(`<h1 style="color:green">Hey ${req.body.uname},Welcome!</h1><br>`)
   }
   else{
      res.write(`<h1 style="color:red">Please login with Admin name</h1>`);
   }
   res.send();
})
app.listen(5222);
```

In 1.css file in public folder

```
.click{
   background-color: black;
   color: white
}
```

In ljform.html file in public folder

```
<html>
  <head>
    <link rel="stylesheet" href="1.css">
  </head>
  <body>
    <form method="post" action="/login">
      <label>User name:</label>
      <input type = "text" name="uname" ></input>
      <label>Password:</label>
      <input type = "text" name="password" ></input>
    <button name="Submit" value="Submit" class="click">Submit</button>
  </form>
  </body>
</html>
```

4. **Write express JS script to load in html file having username, password and submit button. On clicking of submit button, it should jump on check page using <u>post method</u>. If username is "admin" then jump on <u>next middleware</u> to print "welcome admin". For any other username it should stay on same middleware to print warning message in red color.**

two.html   (file in src folder)

```
  <form action="/check" method="post">
 <fieldset>
<legend>Sign-up</legend>
     Username: <input type="text" name="uname"/>
</br></br>
     password: <input type="text" name="pwd"/>
 <br></br>
<input type="submit"/>
</fieldset>
   </form>
```

task.js   (file in src folder)

```
const expr=require("express");
const app=expr();
```

```
app.use(expr.urlencoded({extended:false}))
app.use(expr.static('../public',{index:"two.html"}));

app.post("/check",(req,res,next)=>{
   const u1=req.body.uname
   if(u1=="admin")   {
        next();
   }
   else   {
      res.write(`<h1 style="color:red"> You are not admin </h1>`);
      res.send();
   } } );
app.post("/check",(req,res)=>{
   res.write("<h1>welcome admin</h1>");
   res.send()   });
app.listen(7002)
```

5. Write express js script to perform following tasks. (**Middleware**)

Create one html file which contains one text field for name, email field and checkbox for subscription. Html file will be loaded on home page. Email and name fields are required fields.
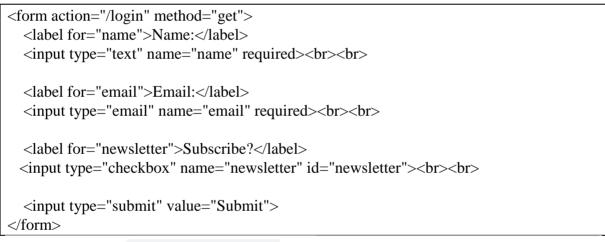On login page welcome user and email id data should be printed.

      a. If user checked the subscription then "Thank you for the subscription" message will be printed and "logout" link will be displayed under the message. If user clicks logout link then he/she will be redirected to the home page.

      b. If user has not opted for the subscription then "You can subscribe to get daily updates" message will be printed and "subscribe" link will be displayed under the message. If user clicks subscribe link then he/she will be redirected to the subscription page. In this page "Thank you for the subscription" message will be printed and "logout" link will be displayed under the message. If user clicks logout link then he/she will be redirected to the home page. Use concept of the middleware and you can use any of http methods(get/post).

/src/app1.js

```
var expr = require("express");
var app = expr();
app.use(expr.static('../public',{index:'trial.html'}));
app.get("/login",(req,res,next)=>{
   console.log(req.query);
   res.set("content-type","text/html");
   res.write("<center><h1>Welcome " + req.query.name + "</h1>");
   res.write("<center><h2>Your email id is " + req.query.email + "</h2>");
```

```
      next();
})
app.get("/login",(req,res,next)=>{
   if(req.query.newsletter && req.query.newsletter == "on"){
      res.write("<h3>Thank you for your subcsription</h3><a href='/'>Logout</a>");
   }else{
      res.write("<h3>You can subcribe to get daily updates</h3><a
href='/subscribe'>Subscribe</a></center>");
   }
  next();
});
app.get("/subscribe",(req,res)=>{
   res.set("content-type","text/html");
   res.write("<h3>Thank you for your subcsription</h3></center><a href='/'>Logout</a>");
   res.send();
});
app.listen(5001);
```

/public/trial1.html

```html
<form action="/login" method="get">
   <label for="name">Name:</label>
   <input type="text" name="name" required><br><br>

   <label for="email">Email:</label>
   <input type="email" name="email" required><br><br>

   <label for="newsletter">Subscribe?</label>
  <input type="checkbox" name="newsletter" id="newsletter"><br><br>

   <input type="submit" value="Submit">
</form>
```

6. You have been assigned to develop a user feedback form for a website using Express.js and cookies.

Implement the following requirements:
- Create a form with the following fields:
  - Name (input field)
  - Email (input field)
  - Message (textarea field)
  - Rating (radio buttons: Bad, Average, Good, Very Good, Excellent)
- When the user submits the form, store their feedback information (name, email, message, and rating) in a cookie named "feedback" that expires in 10 seconds.
- Display a confirmation message to the user after successfully submitting the form & Create a link to display the feedback details stored in the "feedback" cookie.
- When the user click to the link, retrieve the feedback information from the cookie and display it on the page also include a link on the feedback details page to Logout.
- When the user clicks the link, user redirected to home page.

In cookietask2.html file:

```
<html>
<head>
 <title>User Feedback Form</title>
</head>
<body>
 <h1>User Feedback Form</h1>
 <form action="/submit-feedback" method="POST">
  <label for="name">Name:</label>
  <input type="text" id="name" name="name" required><br><br>

  <label for="email">Email:</label>
  <input type="email" id="email" name="email" required><br><br>

  <label for="message">Message:</label>
  <textarea id="message" name="message" required></textarea><br><br>

  <label for="rating">Rating:</label>
  <input type="radio" id="rating1" name="rating" value="Bad" required>
  <label for="rating1">Bad</label>
  <input type="radio" id="rating2" name="rating" value="Average" required>
  <label for="rating2">Average</label>
  <input type="radio" id="rating3" name="rating" value="Good" required>
  <label for="rating3">Good</label>
  <input type="radio" id="rating4" name="rating" value="Very Good" required>
  <label for="rating4">Very Good</label>
  <input type="radio" id="rating5" name="rating" value="Excellent" required>
  <label for="rating5">Excellent</label><br><br>
```

```
    <input type="submit" value="Submit">
  </form>
</body>
</html>
```

In task_cookie2.js file:

```
const express = require('express');
const cp = require('cookie-parser');
const app = express();
app.use(cp());
app.use(express.urlencoded({ extended: true }));

app.get('/', (req, res) => {
  res.sendFile(__dirname + '/cookietask2.html');
});

app.post('/submit-feedback', (req, res) => {
  const { name, email, message, rating } = req.body;

  // Create the feedback object
  const feedback = {
    name,
    email,
    message,
    rating
  };

  // Set the feedback cookie with a 10-second expiration
  res.cookie('feedback', feedback, { maxAge: 10000 });

  res.send('Thank you for your feedback! <br> <a href="/feedback-details"> Show Feedback
</a>');
});

app.get('/feedback-details', (req, res) => {
  const feedback = req.cookies.feedback;

  if (feedback) {
    res.send(`
      <h1>Feedback Details</h1>
      <p><strong>Name:</strong> ${feedback.name}</p>
      <p><strong>Email:</strong> ${feedback.email}</p>
      <p><strong>Message:</strong> ${feedback.message}</p>
      <p><strong>Rating:</strong> ${feedback.rating}</p>
```

```
    <a href="/" > logout </a>`);
  }
else {
    res.send('No feedback available.');
  }
});


app.listen(3000, () => {
  console.log('Server is running on port 3000');
});
```

7. write a script to meet following requirements (Authentication)

1)create index.html file page and open it on localhost.
2)after clicking submit button, it should jump on "savesession" page. Store username in session.
3)After saving session, redirect to "fetchsession" page and read value. Put a LOGOUT link button here.
4)Jump on delete session page after clicking LOGOUT button.
5)Destroy the session on this page and redirect to index.html page.

session.html

```html
<html>
   <body>  <center>
      <form method="get" action="/savesession">
         <div><input type = "text" name="uname" placeholder="Username" ></input></div>
         <div><input type = "password" name="pass" placeholder="Password"></input></div>
         <input class="lj_in" type="submit" name="submit" value="Submit">
      </form>
   </center>    </body> </html>
```

Session.js

```javascript
var expr = require("express");
var app = expr();
var es = require("express-session");
app.use(es({
   resave:false,
   saveUninitialized:false,
   secret:"lju1"
}));
app.get('/',(req,res)=>{
   res.sendFile(__dirname + "/redirect.html");
});
```

```
app.get("/savesession",(req,res)=>{
    var uname=req.query.uname;
    var pass=req.query.pass;

  req.session.uname = uname;
  req.session.password = pass;
  res.redirect("fetchsession")

})
app.get("/fetchsession",(req,res)=>{
  if(req.session.uname == "admin" && req.session.password=="admin@123"){
    res.write("<h1 style='color:green;'>Welcome Admin</h1>")
    res.write("<a href='/deletesession'>Delete Session</a>")
  }else{
    res.write("<h1 style='color:red;'>Please enter valid username or password</h1><a
href='/'>Login</a>")
  }
  res.send();
});
app.get("/deletesession",(req,res)=>{
  req.session.destroy();
  res.write("<h1>Session Destroyed</h1><a href='/'>Login</a>")
  res.send();
});
app.listen(6177);
```

8. Write a script to meet following requirements:

- Create session.html file page which contains form (username,password,login button). and open it on localhost.
- After clicking submit button, it should jump on "save" page. Store username and password in session.
- After saving session, redirect to "fetchdata" page and read value. Put a LOGOUT link button here. On this page check authentication of user. User name and password must be "admin" and "admin@123" respectively.
  - o If this condition is true then display welcome admin and display logout link on this page(fetchdata).
- By clicking on logout link user should jump to "destroy" page and destroy the session there and display the message "Session destroyed". And give the link of "login" under that message. By clicking that link user will be redirected to the home page.
  - o Else display "Please enter valid username and password" and login link on this page(fetchdata).

session.html

```
<html>   <body>
    <center>
    <form method="get" action="/savesession">

      <div><input type = "text" name="uname" placeholder="Username"
></input></div>
```

```
        <div><input type = "password" name="pass"
placeholder="Password"></input></div>
        <input class="lj_in" type="submit" name="submit" value="Login">
    </form>
  </center>
  </body> </html>
```

Session.js

```
var expr = require("express");
var app = expr();
var es = require("express-session");
app.use(es({
   resave:false,
   saveUninitialized:false,
   secret:"lju1"
}));
app.get('/',(req,res)=>{
   res.sendFile(__dirname + "/redirect.html");
});
app.get("/save",(req,res)=>{
    var uname=req.query.uname;
    var pass=req.query.pass;

   req.session.uname = uname;
   req.session.password = pass;
   res.redirect("fetchsession")
   })
app.get("/fetchdata",(req,res)=>{
   if(req.session.uname == "admin" && req.session.password=="admin@123"){
      res.write("<h1 style='color:green;'>Welcome Admin</h1>")
      res.write("<a href='/destory>Logout</a>")
   }else{
      res.write("<h1 style='color:red;'>Please enter valid username or password</h1><a
href='/'>Login</a>")
   }
   res.send();
});
app.get("/destroy",(req,res)=>{
 req.session.destroy(err => {
if (err) {
    res.send(err)
 }
else {
    res.clearCookie('connect.sid')
    res.redirect('/')
 }
 })  });
 app.listen(6177);
```