Name: Gargi Mhaskar
Roll No.: 33338
Batch: L11

Web Application Development Lab

Assignment 1 B

Views

homepage.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Login Page</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">

    <!-- Bootstrap 4 -->
    <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min
.css"
          integrity="sha384-
Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
crossorigin="anonymous">
    <!-- JQuery -->
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js">
</script>

    <link rel="stylesheet" href="/css/style.css">
    <script src="/js/login.js"></script>
</head>
<body>
<div class="container">
    <div class="container">
        <div class="row mt-5 justify-content-center">
            <div class="col-6 p-4">
                <form>
                    <fieldset>
                        <legend>Login form</legend>
                        <div class="form-group">
                            <label for="email">Email address:</label>
                            <input type="email" class="form-control"
id="email" placeholder="Enter email" required>
                        </div>
                        <div class="form-group">
                            <label for="password">Password:</label>
```

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```
                            <input type="password" class="form-control"
id="password" placeholder="Password" required>
                        </div>
                        <button type="button" id="loginBtn" class="btn
btn-primary">Login</button>
                        <div class="mt-2">If you haven't had an account
yet, <a href="/register">create a new one</a></div>
                    </fieldset>
                </form>
            </div>
        </div>
    </div>
</div>
</body>
</html>
```

login.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Login Page</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">

    <!-- Bootstrap 4 -->
    <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min
.css"
          integrity="sha384-
Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
crossorigin="anonymous">
    <!-- JQuery -->
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js">
</script>

    <link rel="stylesheet" href="/css/style.css">
    <script src="/js/login.js"></script>
</head>
<body>
<div class="container">
    <div class="container">
        <div class="row mt-5 justify-content-center">
            <div class="col-6 p-4">
                <form>
```

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```
                    <fieldset>
                        <legend>Login form</legend>
                        <div class="form-group">
                            <label for="email">Email address:</label>
                            <input type="email" class="form-control"
id="email" placeholder="Enter email" required>
                        </div>
                        <div class="form-group">
                            <label for="password">Password:</label>
                            <input type="password" class="form-control"
id="password" placeholder="Password" required>
                        </div>
                        <button type="button" id="loginBtn" class="btn
btn-primary">Login</button>
                        <div class="mt-2">If you haven't had an account
yet, <a href="/register">create a new one</a></div>
                    </fieldset>
                </form>
            </div>
        </div>
    </div>
</div>
</body>
</html>
```

register.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Register Page</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">

    <!-- Bootstrap 4 -->
    <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min
.css"
          integrity="sha384-
Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
crossorigin="anonymous">
    <!-- JQuery -->
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js">
</script>
```

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```
    <link rel="stylesheet" href="/css/style.css">
    <script src="/js/register.js"></script>
</head>
<body>
<div class="container">
    <div class="container">
        <div class="row mt-5 justify-content-center">
            <div class="col-6 p-4">
                <form>
                    <fieldset>
                        <legend>Register form</legend>
                        <div class="form-group">
                            <label for="fullName">Your full
name:</label>
                            <input type="text" class="form-control"
id="fullName" placeholder="Full name">
                        </div>
                        <div class="form-group">
                            <label for="email">Email address:
(*)</label>
                            <input type="email" class="form-control"
id="email" placeholder="Enter email">
                            <small class="form-text invalid-
feedback">Invalid email</small>
                        </div>
                        <div class="form-group">
                            <label for="password">Password: (*)</label>
                            <input type="password" class="form-control"
id="password" placeholder="Password">
                            <small class="form-text invalid-
feedback">Invalid password, require greater than 2
                                letters</small>
                        </div>
                        <div class="form-group">
                            <label for="passwordConfirmation">Confirm
password: (*)</label>
                            <input type="password" class="form-control"
id="passwordConfirmation"
                                   placeholder="Password confirmation">
                            <small class="form-text invalid-
feedback">Password confirmation is not match with the
                                password input</small>
                        </div>
                        <button type="button" id="registerBtn"
class="btn btn-primary">Register</button>
                    </fieldset>
                </form>
            </div>
        </div>
    </div>
</div>
</body>
</html>
```

Server.js

```
require('dotenv').config();
import express from "express";
import viewEngine from "./config/viewEngine";
import initWebRoutes from "./routes/web";
import bodyParser from "body-parser";
import cookieParser from "cookie-parser";
import session from "express-session";
import passport from "passport";

let app = express();

app.use(cookieParser("secret"));

//config session
app.use(session({
   secret: 'secret',
   resave: true,
   saveUninitialized: false,
   cookie: {
      maxAge: 1000 * 60 * 60 * 24 // 86400000 1 day
   }
}));

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

// config view engine
viewEngine(app);

//Config passport middleware
app.use(passport.initialize());
app.use(passport.session());

//init all web routes
initWebRoutes(app);

let port = process.env.PORT || 8080;
```

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```
app.listen(port, ()=>{
   console.log(`App is running at the ${port}`);
});
```

Services

loginService.js

```
import connection from "../config/connectDB";
import bcrypt from "bcryptjs";

let findUserByEmail = (email)=>{
 return new Promise((resolve, reject) => {
     try{
         connection.query("SELECT * from users where email = ?", email,
function(error, rows) {
             if(error) reject(error);
             let user = rows[0];
             resolve(user);
         });
     }catch (e) {
         reject(e);
     }
 })
};

let compareUserPassword =  (user, password)=>{
    return new Promise(async (resolve, reject) => {
        try{
            let match = await bcrypt.compare(password, user.password);
            if(match) resolve(true);
            else resolve("The password that you've entered is
incorrect")
        }catch (e) {
            reject(e);
        }
    })
};

let findUserById = (id) => {
    return new Promise((resolve, reject) => {
        try{
            connection.query("SELECT * from users where id = ?", id,
function(error, rows) {
                if(error) reject(error);
                let user = rows[0];
                resolve(user);
            });
        }catch (e) {
            reject(e);
        }
    })
};

module.exports = {
    compareUserPassword: compareUserPassword,
    findUserByEmail: findUserByEmail,
    findUserById: findUserById
};
```

registerService.js

```
import connection from "../config/connectDB";
import bcrypt from "bcryptjs";

let createNewUser = (user) => {
    return new Promise(async (resolve, reject) => {
        try {
            let check = await checkEmailUser(user.email);
            if(check === false) {
                //hash user's password
                let salt = bcrypt.genSaltSync(10);
                let data = {
                    fullname: user.fullname,
                    email: user.email,
                    password: bcrypt.hashSync(user.password, salt)
                };

                //create a new user
                connection.query("INSERT INTO users set ? ", data,
function(error, rows) {
                    if (error) reject(error);
                    resolve("create a new user successfully");
                })
            }
            if(check === true)
                reject(`The email ${user.email} has already exist.
Please choose another email`)

        } catch (e) {
            reject(e);
        }
    });
};

let checkEmailUser = (email) => {
return new Promise((resolve, reject) => {
```

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```
    try{
        connection.query("SELECT * from users where email = ?", email,
function(error, rows) {
            if(error) reject(error);
            if(rows.length > 0) resolve(true);
            resolve(false);
        })
    }catch (e) {
        reject(e);
    }
}) ;
};

module.exports = {
    createNewUser: createNewUser
};
```

Routes
web.js

```
import express from "express";
import registerController from "../controllers/registerController";
import loginController from "../controllers/loginController";
import homePageController from "../controllers/homePageController";
import initPassportLocal from "../controllers/passportLocalController";
/*
init passport routes
 */
initPassportLocal();

let router = express.Router();

let initWebRoutes = (app) => {
    router.get("/", loginController.checkLoggedIn,
homePageController.getHomePage);
    router.post("/logout", loginController.postLogOut);

    router.get("/register", registerController.getRegisterPage );
    router.post("/register-new-user",
registerController.createNewUser);

    router.get("/login",loginController.checkLoggedOut,
loginController.getLoginPage);
    router.post("/login", loginController.handleLogin);
    return app.use("/", router);
};

module.exports = initWebRoutes;
```

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Config

connectDB.js

```
require("dotenv").config();
import mysql from "mysql2";

let connection = mysql.createConnection({
    host: process.env.DB_HOST,
    port: process.env.DB_PORT,
    database: process.env.DB_NAME,
    user: process.env.DB_USERNAME,
    password: process.env.DB_PASSWORD
});

connection.on('error', function(err) {
    console.log(err)
    console.log("I'm dead, please setup the env file for connecting to 
your database! => no connection to your DB");
})

module.exports = connection;
```

viewEngine.js

```
import express from "express";

/*
Config view engine for node app
 */

let configViewEngine = (app) => {
    app.use(express.static("./src/public"));
    app.set("view engine", "ejs");
    app.set("views","./src/views");
};

module.exports = configViewEngine;
```

Controllers

homePageController.js

```
let getHomePage = (req, res) => {
    return res.render("homepage.ejs", {
        user: req.user
    })
};

module.exports = {
    getHomePage: getHomePage
};
```

loginController.js

```
import passport from "passport";

let getLoginPage = (req, res) => {
  return res.render("login.ejs");
};

let handleLogin = (req, res,next) => {
   passport.authenticate("localLogin", function(error, user, info) {
        if (error) {
            return res.status(500).json(error);
        }
        if (!user) {
            return res.status(401).json(info.message);
        }
        req.login(user, function (err) {
            if (err) {
                return res.status(500).json(error);
            } else {
                return res.status(200).json(user);
            }
        });
   })(req, res, next);
};

let checkLoggedIn = (req, res, next) => {
    if(!req.isAuthenticated()){
        return res.redirect("/login");
    }
    next();
};

let checkLoggedOut = (req, res, next) => {
    if(req.isAuthenticated()){
        return res.redirect("/");
    }
    next();
};

let postLogOut = (req, res) =>{
    req.session.destroy(function(err) {
        return res.redirect("/login");
    });
```

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```
};

module.exports = {
    getLoginPage: getLoginPage,
    handleLogin: handleLogin,
    checkLoggedIn: checkLoggedIn,
    checkLoggedOut: checkLoggedOut,
    postLogOut: postLogOut
};
```

registerController.js

```
import registerService from "../services/registerService";

let getRegisterPage = (req, res) => {
    return res.render("register.ejs");
};

let createNewUser = async (req, res) => {
  try{
      let data = {
          fullname: req.body.fullName,
          email: req.body.email,
          password: req.body.password
      };
      //create a new user
      await registerService.createNewUser(data);
      return res.status(200).json({
          message: "a user create succeeds"
      })
  }catch (e) {
      return res.status(500).json(e);
  }
};
module.exports = {
    getRegisterPage: getRegisterPage,
    createNewUser: createNewUser
};
```

passportLocalController.js

```
import passport from "passport";
import passportLocal from "passport-local";
import loginService from "../services/loginService";

let LocalStrategy = passportLocal.Strategy;

let initPassportLocal = () => {
    passport.use("localLogin", new LocalStrategy({
```

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```
            usernameField: 'email',
            passwordField: 'password',
        },
        async (email, password, done) => {
            try {
                await loginService.findUserByEmail(email).then(async
(user) => {
                    if (!user) return done(null, false, { message:
`This user email "${email}" doesn't exist` })
                    if (user) {
                        //compare password
                        let match = await
loginService.compareUserPassword(user, password);
                        if (match === true) return done(null, user,
null);
                        return done(null, false, { message: match });
                    }
                });

            } catch (err) {
                return done(null, false, { message: err });
            }
        }));
};

passport.serializeUser((user, done) => {
    done(null, user.id);
});

passport.deserializeUser((id, done) => {
    loginService.findUserById(id).then((user) => {
        return done(null, user);
    }).catch(error => {
        return done(error, null)
    });
});

module.exports = initPassportLocal;
```

CSS

```
fieldset {
    border: 2px solid grey;
    border-radius: 3px;
    padding: 20px;
}
legend {
    width: auto !important;
```

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```
}
```

JavaScript

login.js

```
function handleLoginBtn(){
    $("#loginBtn").on("click", function(event) {
        event.preventDefault();
        let email = $("#email").val();
        let password = $("#password").val();

        $.ajax({
            url: `${window.location.origin}/login`,
            method: "POST",
            data: {email: email, password: password},
            success: function(data) {
                window.location.href = "/";
            },
            error: function(err) {
                alert("Your email or password entered is incorrect.
Please try again!");
            }
        })
    });
}
$(document).ready(function() {
    handleLoginBtn();
});
```

register.js

```
/*
default return false, return true if has errors
 */
function validateInput(email, password, passwordConfirmation) {
    //check email
    const EMAIL_REG = /[a-zA-Z][a-zA-Z0-9_\.]{1,32}@[a-z0-9]{2,}(\.[a-
z0-9]{2,4}){1,2}/g;
    if(email.match(EMAIL_REG)){
        $("#email").removeClass("is-invalid");
    }else {//empty email input or invalid email
        $("#email").addClass("is-invalid");
    }

    //check password
    if(password.length > 2){
        $("#password").removeClass("is-invalid");
    }else {
```

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```
        $("#password").addClass("is-invalid");
    }

    //check passwordConfirmation
    if(passwordConfirmation === password){
        $("#passwordConfirmation").removeClass("is-invalid");
    }else{
        $("#passwordConfirmation").addClass("is-invalid");
    }

    if(!email.match(EMAIL_REG) || password.length <= 2 || password !==
passwordConfirmation)
        return true; //has errors

    return false;
}

function handleClickRegisterBtn() {
    $("#registerBtn").on("click", function(event) {
        event.preventDefault();

        let email = $("#email").val();
        let password = $("#password").val();
        let passwordConfirmation = $("#passwordConfirmation").val();
        let fullName = $("#fullName").val();

        //validate input
        let check = validateInput(email, password,
passwordConfirmation);

        if (!check) {
            //send data to node server with ajax
            //url map to http://localhost/register-new-user
            $.ajax({
                url: `${window.location.origin}/register-new-user`,
                method: "POST",
                data: {fullName: fullName, email: email, password:
password, passwordConfirmation: passwordConfirmation},
                success: function(data) {
                    alert("Create a new account succeeds!");
                    window.location.href = "/login";
                },
                error: function(err) {
                   alert(err.responseText);
                }
            });
        }
```

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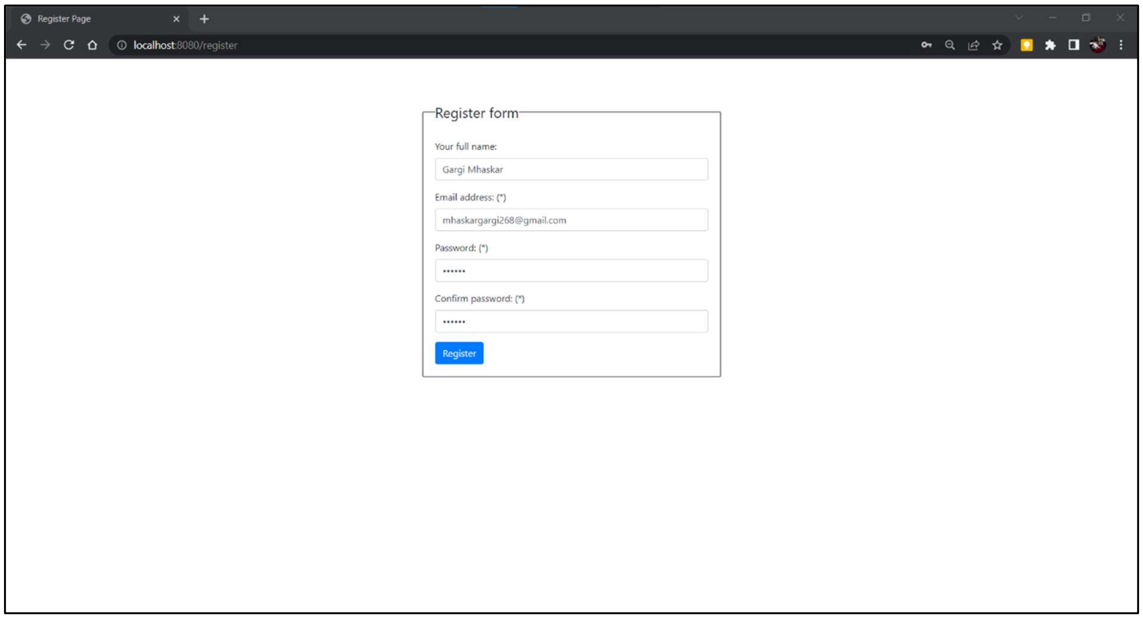
```
    });
}

$(document).ready(function() {
    handleClickRegisterBtn();
});
```

.env

```
#config app variables
APP_HOST=localhost
PORT=8080
NODE_ENV=developer

DB_CONNECTION=mysql
DB_HOST=localhost
DB_PORT=3307
DB_NAME=loginajax
DB_USERNAME=root
DB_PASSWORD=123456
```

Output



Register form

Your full name: Gargi Mhaskar

Email address: (*) mhaskargargi268@gmail.com

Password: (*) ••••••

Confirm password: (*) ••••••

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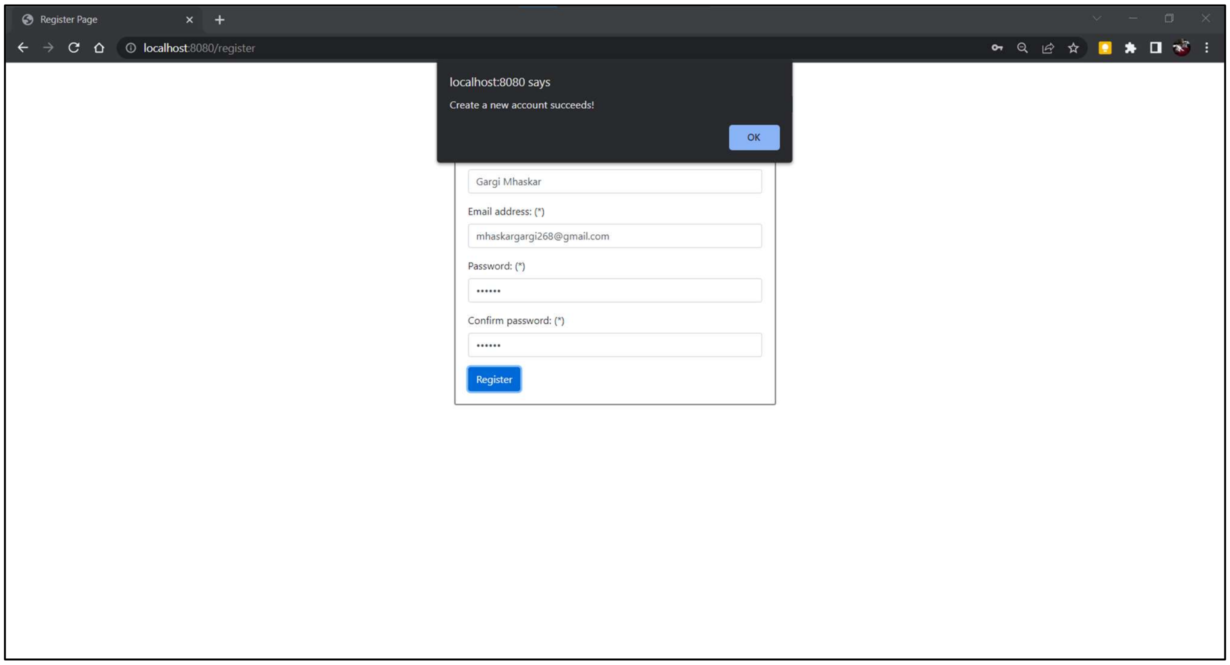


Register Page

localhost:8080/register

localhost:8080 says

Create a new account succeeds!

Gargi Mhaskar

Email address: (*)

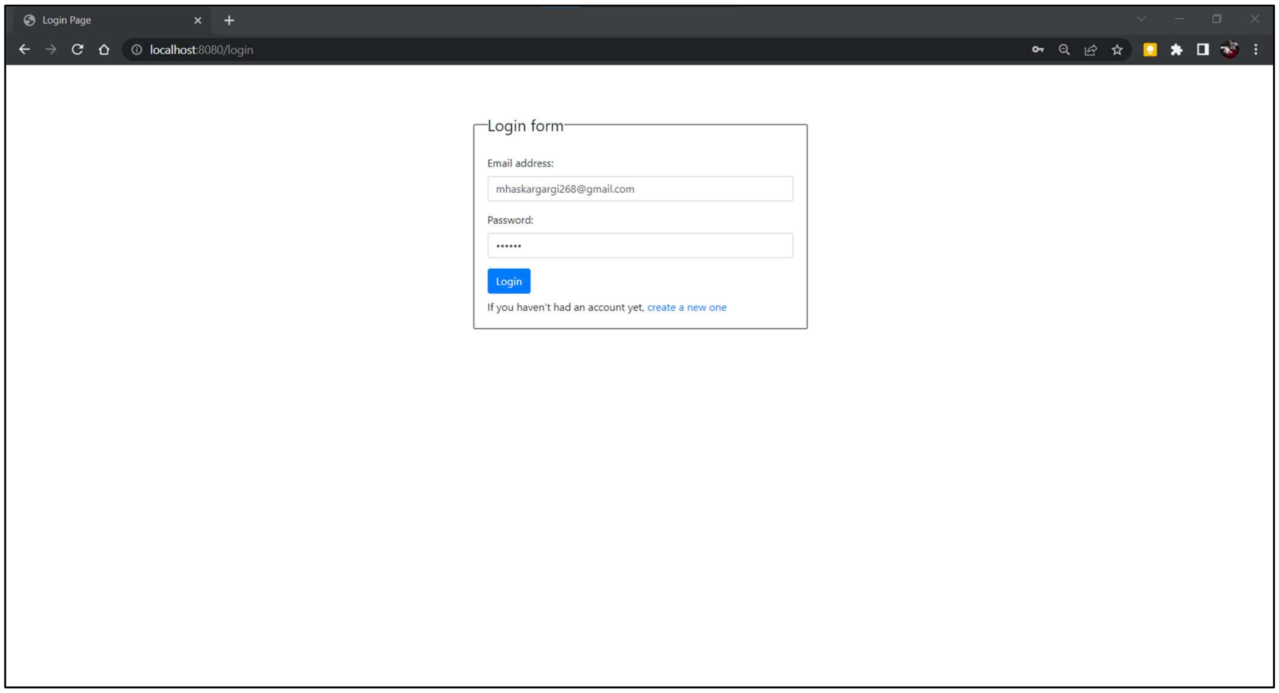
mhaskargargi268@gmail.com

Password: (*)

••••••

Confirm password: (*)

••••••



Login Page

localhost:8080/login

Login form

Email address:

mhaskargargi268@gmail.com

Password:

••••••

If you haven't had an account yet, create a new one

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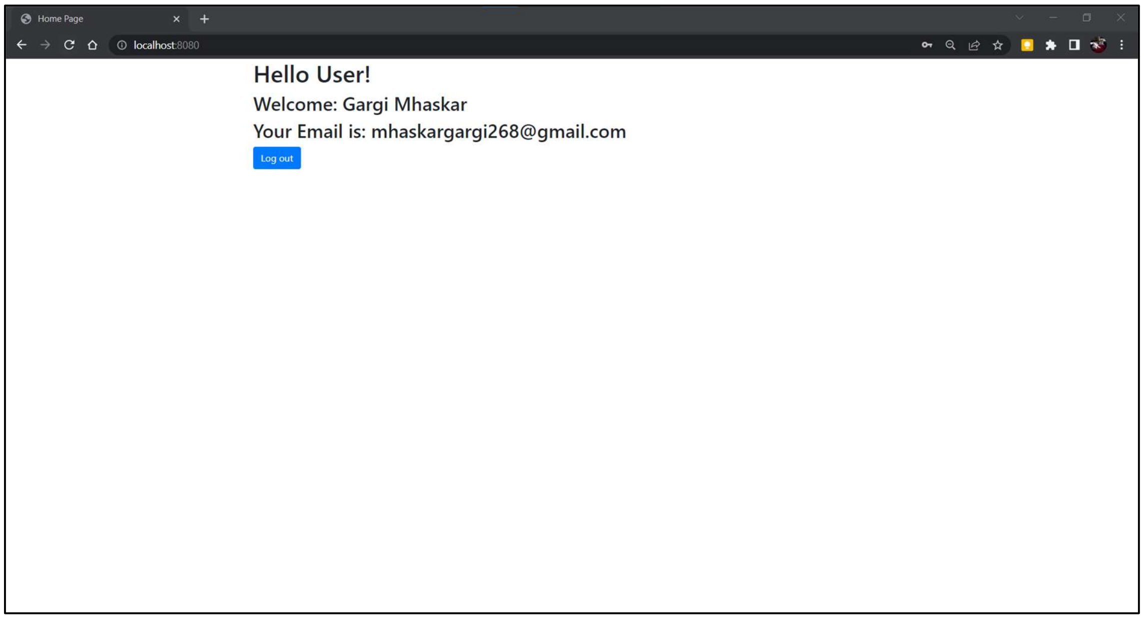
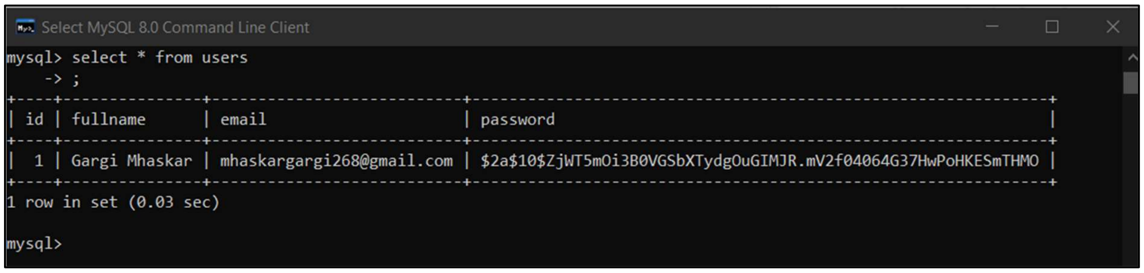


Hello User!

Welcome: Gargi Mhaskar

Your Email is: mhaskargargi268@gmail.com



```
mysql> select * from users
    -> ;
+----+---------------+---------------------------+--------------------------------------------------------------+
| id | fullname      | email                     | password                                                     |
+----+---------------+---------------------------+--------------------------------------------------------------+
|  1 | Gargi Mhaskar | mhaskargargi268@gmail.com | $2a$10$ZjWT5mOi3B0VGSbXTydgOuGIMJR.mV2f04064G37HwPoHKESmTHMO |
+----+---------------+---------------------------+--------------------------------------------------------------+
1 row in set (0.03 sec)

mysql>
```