

Assignment 2C

Angular Files:

home.component.ts:

```
import { Component } from '@angular/core';
import { CookieService } from 'ngx-cookie-service';
import { Router } from '@angular/router';

@Component({
  selector: 'app-home',
  templateUrl: './home.component.html',
  styleUrls: ['./home.component.css'],
})
export class HomeComponent {
  message: string;

  constructor(private cookieService: CookieService, private router: Router) {
    let user: string = localStorage.getItem('user') ?? '{}';
    const userDetails = JSON.parse(user);
    this.message = userDetails.username
      ? 'Hello ' + userDetails.username
      : 'LOGIN';
    this.validate();
  }

  validate() {
    // verify
    const jwt = this.cookieService.get('jwt');
    console.log(jwt);
    const myHeaders = new Headers({
      'Content-Type': 'application/json',
      Cookie: `jwt=${jwt}`,
    });

    var requestOptions: Object = {
      method: 'GET',
      headers: myHeaders,
      redirect: 'follow',
      credentials: 'include',
    };

    fetch('http://localhost:2324', requestOptions)
      .then((response) => {
        if (!response.ok) {
          throw new Error(String(response.status));
        }
        return response.json();
      })
  }
```

```

.then((result) => {
  console.log(result);
  if (result.message === 'Token is not valid') {
    // redirect to login
    localStorage.removeItem('user');
    this.router.navigate(['/login']);
  } else if (result.message === 'Token is not provided') {
    // redirect to login
    localStorage.removeItem('user');
    this.router.navigate(['/login']);
  }
  if (this.message === 'LOGIN') {
    this.router.navigate(['/login']);
  }
})
.catch((error) => console.log('error', error));
}

logout() {
  localStorage.removeItem('user');
  this.router.navigate(['/login']);
}
}

```

login.component.ts:

```

import { Component } from '@angular/core';
import { Router } from '@angular/router';

@Component({
  selector: 'app-login',
  templateUrl: './login.component.html',
  styleUrls: ['./login.component.css'],
})
export class LoginComponent {
  usernameError: string = "";
  passwordError: string = "";

  constructor(private router: Router) {}

  async getData(username: any, password: any) {
    this.usernameError = username ? " : 'Username is required'";
    this.passwordError = password ? " : 'Password is required'";

    if (username && password) {
      var myHeaders = new Headers();
      myHeaders.append('Content-Type', 'application/json');

      var raw = JSON.stringify({
        username: username,
        password: password,

```

```

});

var requestOptions: Object = {
  method: 'POST',
  headers: myHeaders,
  body: raw,
  redirect: 'follow',
};

fetch('http://localhost:2324/login', requestOptions)
  .then((response) => response.json())
  .then((result) => {
    if (result.token) {
      document.cookie = 'jwt=' + result.token;
      localStorage.setItem('user', JSON.stringify(result.user));
      this.router.navigate([""]);
    } else {
      this.usernameError =
        result.message === 'Username Not Found' ? result.message : "";
      this.passwordError =
        result.message === 'Incorrect Password' ? result.message : "";
    }
  })
  .catch((error) => console.log('error', error));
}
}
}

```

signup.component.ts:

```

import { Component } from '@angular/core';
import { Router } from '@angular/router';

@Component({
  selector: 'app-signup',
  templateUrl: './signup.component.html',
  styleUrls: ['./signup.component.css'],
})
export class SignupComponent {
  usernameError: string = "";
  passwordError: string = "";

  constructor(private router: Router) {}

  async getData(username: any, password: any) {
    this.usernameError = username ? "" : 'Username is required';
    this.passwordError = password ? "" : 'Password is required';

    if (username && password) {
      var myHeaders = new Headers();
      myHeaders.append('Content-Type', 'application/json');
    }
  }
}

```

```

var raw = JSON.stringify({
  username: username,
  password: password,
});

var requestOptions: Object = {
  method: 'POST',
  headers: myHeaders,
  body: raw,
  redirect: 'follow',
};

fetch('http://localhost:2324/signup', requestOptions)
  .then((response) => {
    if (response.ok) {
      return response.json();
    } else {
      this.usernameError = 'Username Already Exists';
      throw Error('Not OK');
    }
  })
  .then((result) => {
    if (result.token) {
      document.cookie = 'jwt=' + result.token;
      localStorage.setItem('user', JSON.stringify(result.user));
      this.router.navigate([""]);
    }
  })
  .catch((error) => console.log('error', error));
}
}
}

```

Server Running Database:

index.js:

```

import express from "express"
import User from "./User.js"
import cookieParser from "cookie-parser";
import jwt from "jsonwebtoken";
import connection from "./mongodb.js";
import cors from 'cors';

import dotenv from "dotenv"
dotenv.config();

const app = express();

//middleware
app.use(express.json());
app.use(cookieParser());

```

```

app.use(function (req, res, next) {
  // Website you wish to allow to connect
  res.setHeader('Access-Control-Allow-Origin', '*');
  // Request methods you wish to allow
  res.setHeader('Access-Control-Allow-Methods', 'GET, POST, OPTIONS, PUT, PATCH, DELETE');
  // Request headers you wish to allow
  res.setHeader('Access-Control-Allow-Headers', 'X-Requested-With,content-type');
  // Set to true if you need the website to include cookies in the requests sent
  // to the API (e.g. in case you use sessions)
  res.setHeader('Access-Control-Allow-Credentials', true);
  // Pass to next layer of middleware
  next();
});

```

```

app.use(cors({
  origin: 'http://localhost:4200',
  credentials: true
}));

```

```

const authMiddleware = (req, res, next) => {
  const jwtToken = req.cookies.jwt
  if (jwtToken) {
    jwt.verify(jwtToken, "This is My Secret", (error, decode) => {
      if (error) {
        res.json({ message: "Token is not valid" })
      } else {
        req._id = decode._id;
        next()
      }
    })
  } else {
    res.json({ message: "Token is not provided" })
  }
}

```

```

// functions
async function createToken(_id, res) {
  const token = await jwt.sign({ _id }, "This is My Secret", {
    expiresIn: "2d"
  })
  res.cookie("jwt", token, {
    maxAge: 1000 * 60 * 60 * 24 * 2,
    httpOnly: true
  });
  return token;
}

```

```

//routes
app.post("/login", async (req, res) => {

```

```

    try {
      const user = await User.login(req.body);
      if (user === 1) {
        res.clearCookie("jwt");
        return res.send({ message: "Username Not Found" });

        } else if (user === 2) {
          res.clearCookie("jwt");
          return res.send({ message: "Incorrect Password" });
        }

        const token = await createToken(user._id, res)
        return res.send({ user, token });
      } catch (error) {
        res.status(404).send({ error })
      }
    })

app.post("/signup", async (req, res) => {
  const { username, password } = req.body;
  if (username && password) {
    try {
      const user = await User.create({ username, password });
      const token = await createToken(user._id, res)
      return res.send({ user, token });
    } catch (error) {
      return res.status(404).send({ error })
    }
  } else {
    return res.status(404).json({ message: "`username` and `password` are required" })
  }
})

app.get("/", authMiddleware, async (req, res) => {
  try {
    const user = await User.findOne({ _id: req._id })
    res.status(200).json({ username: user.username })
  } catch (error) {
    res.status(494).json({ error })
  }
})

//server connection
connection.then(() => {
  app.listen(2324, () => {
    console.log("server started: http://localhost:2324")
  })
}).catch(err => {
  console.log(err)
})

```

Output:

Angular Running Terminal:

```
(base) atharva@coding-atharva:~/CollegePracticals/WAD/Assignment-2c/my-app$ ng serve
✓ Browser application bundle generation complete.

Initial Chunk Files | Names          | Raw Size
vendor.js           | vendor         | 2.05 MB
polyfills.js        | polyfills      | 314.27 kB
styles.css, styles.js | styles        | 209.39 kB
main.js             | main           | 24.33 kB
runtime.js          | runtime        | 6.51 kB
                    | Initial Total  | 2.59 MB

Build at: 2023-04-10T12:59:20.421Z - Hash: a9d78a51ba22ad5a - Time: 6785ms

** Angular Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200/ **

✓ Compiled successfully.
✓ Browser application bundle generation complete.

5 unchanged chunks

Build at: 2023-04-10T13:00:43.558Z - Hash: a9d78a51ba22ad5a - Time: 325ms

✓ Compiled successfully.
```

Server Running Terminal:

```
atharva@coding-atharva:~/CollegePracticals/WAD/Assignment-2c/backend$ nodemon start
[nodemon] 2.0.20
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,json
[nodemon] starting `node start index.js`
server started: http://localhost:2324
```

Web Output:

