Name: Mrunali Katta

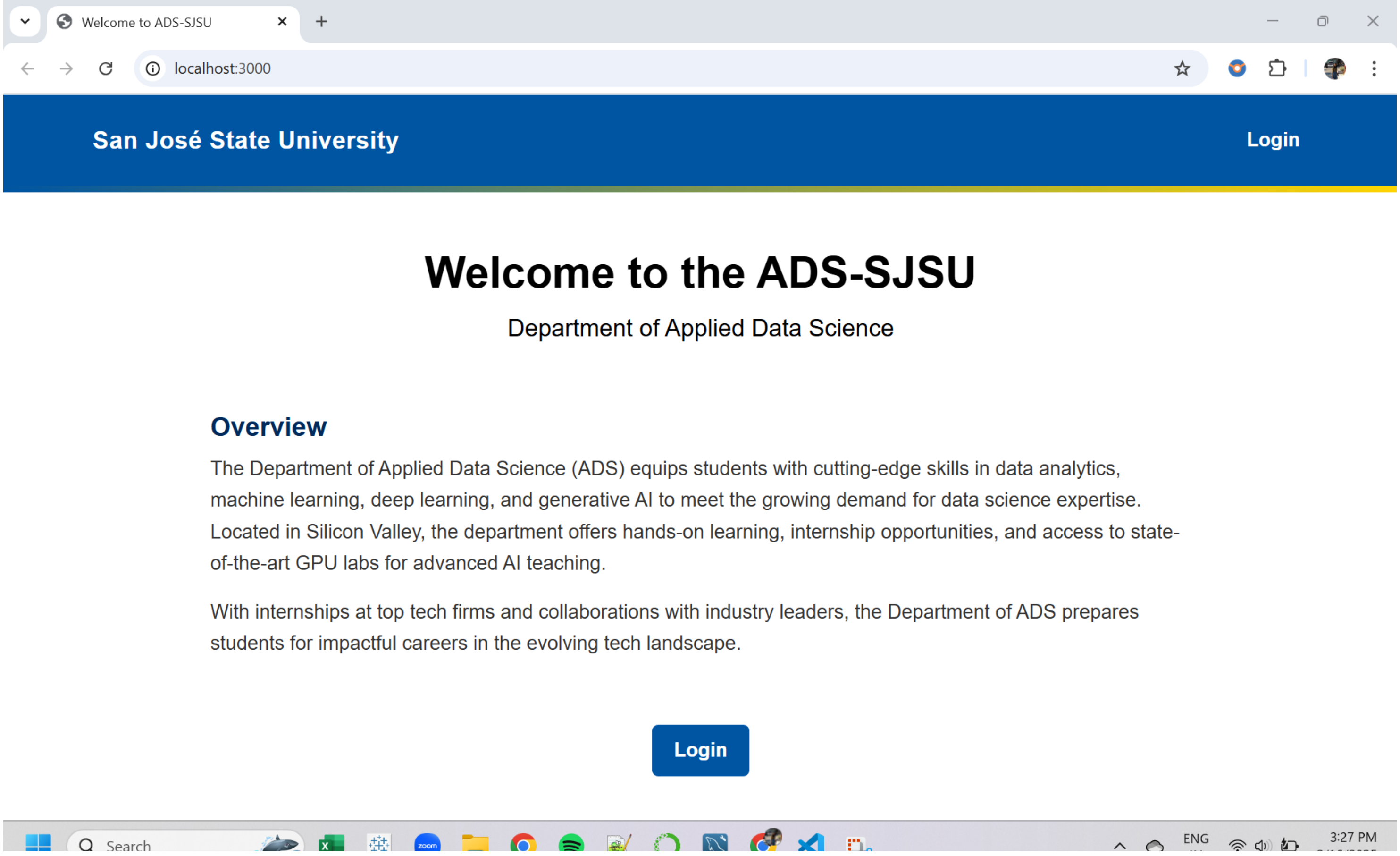
ID : 017516785

DATA 236 – Homework 03

1. Routes- Handled Separately in a router 4 points

Home Page (/):
Display a welcome message for ADS-SJSU
Show a link to the login page if the user is not logged in.
Show a link to the dashboard and logout if the user is logged in.

Homepage



Welcome to the ADS-SJSU

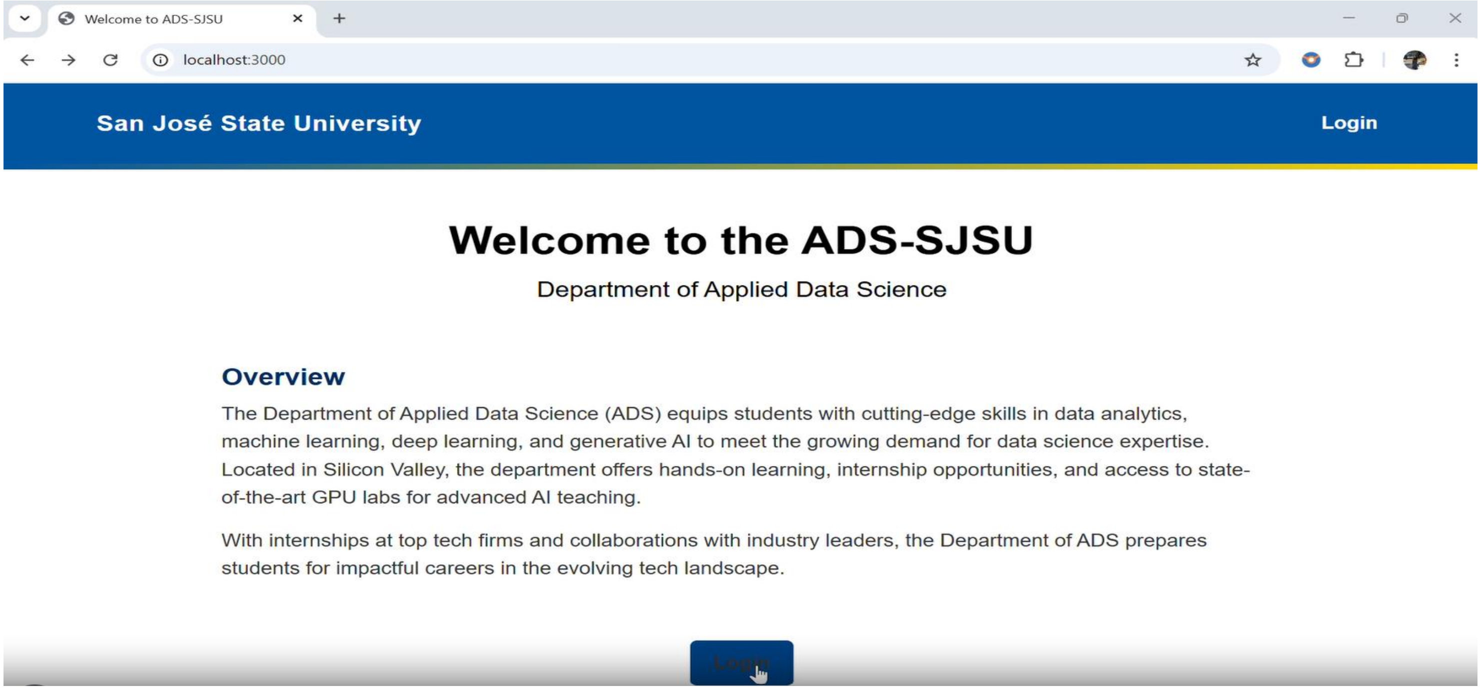
Department of Applied Data Science

Overview

The Department of Applied Data Science (ADS) equips students with cutting-edge skills in data analytics, machine learning, deep learning, and generative AI to meet the growing demand for data science expertise. Located in Silicon Valley, the department offers hands-on learning, internship opportunities, and access to state-of-the-art GPU labs for advanced AI teaching.

With internships at top tech firms and collaborations with industry leaders, the Department of ADS prepares students for impactful careers in the evolving tech landscape.

Login using the **Login button**



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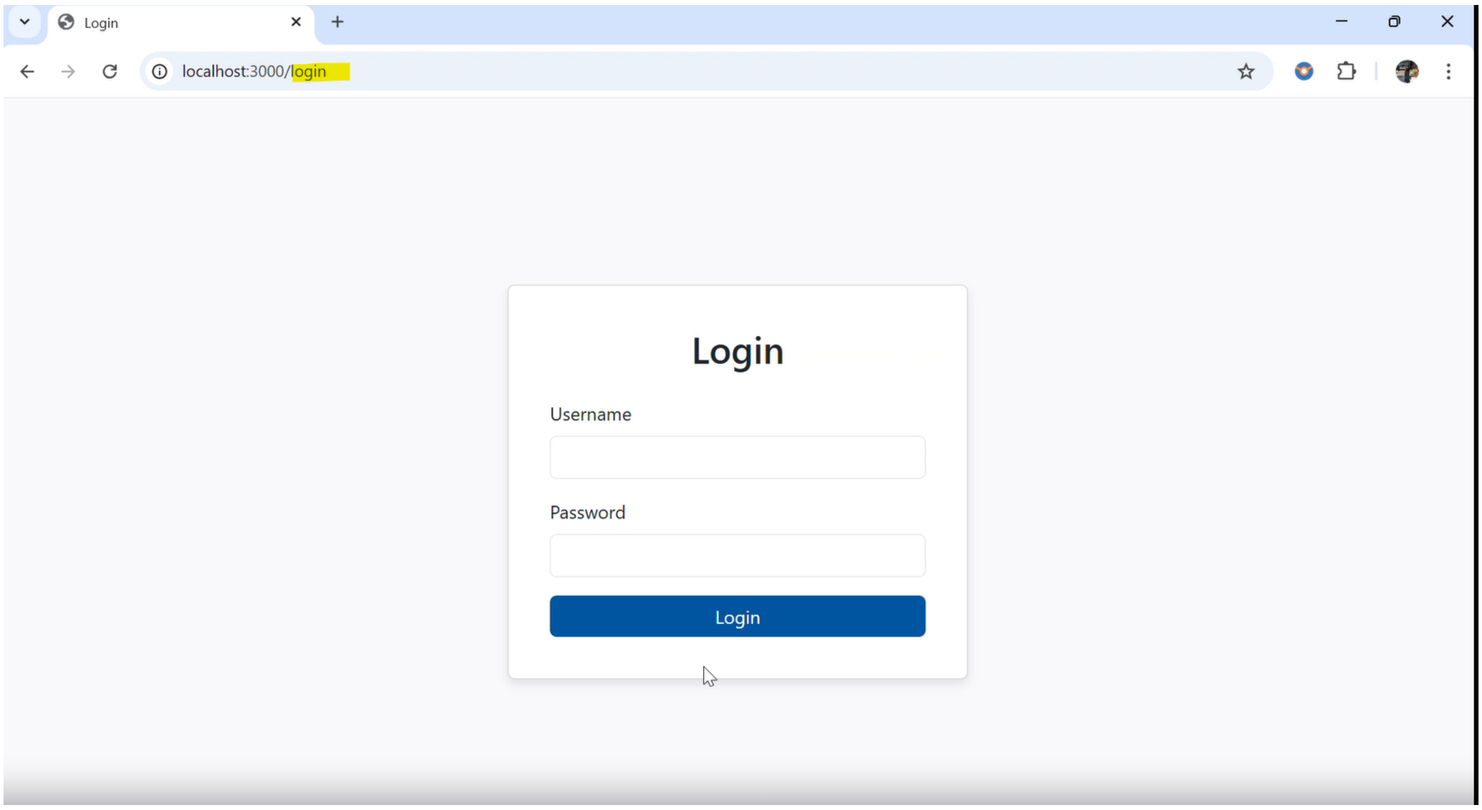
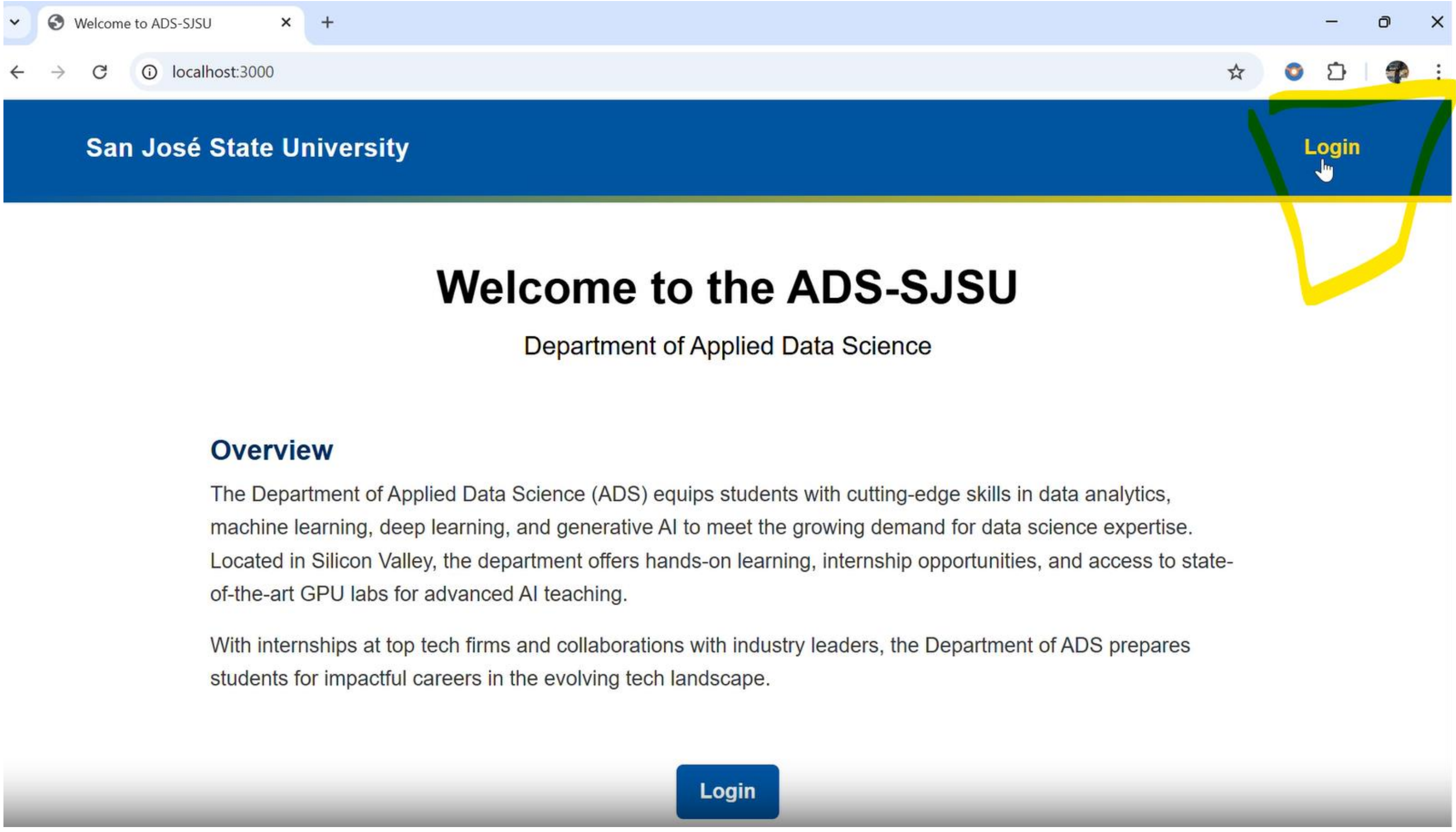


Login using Login clickable link on the homepage navbar



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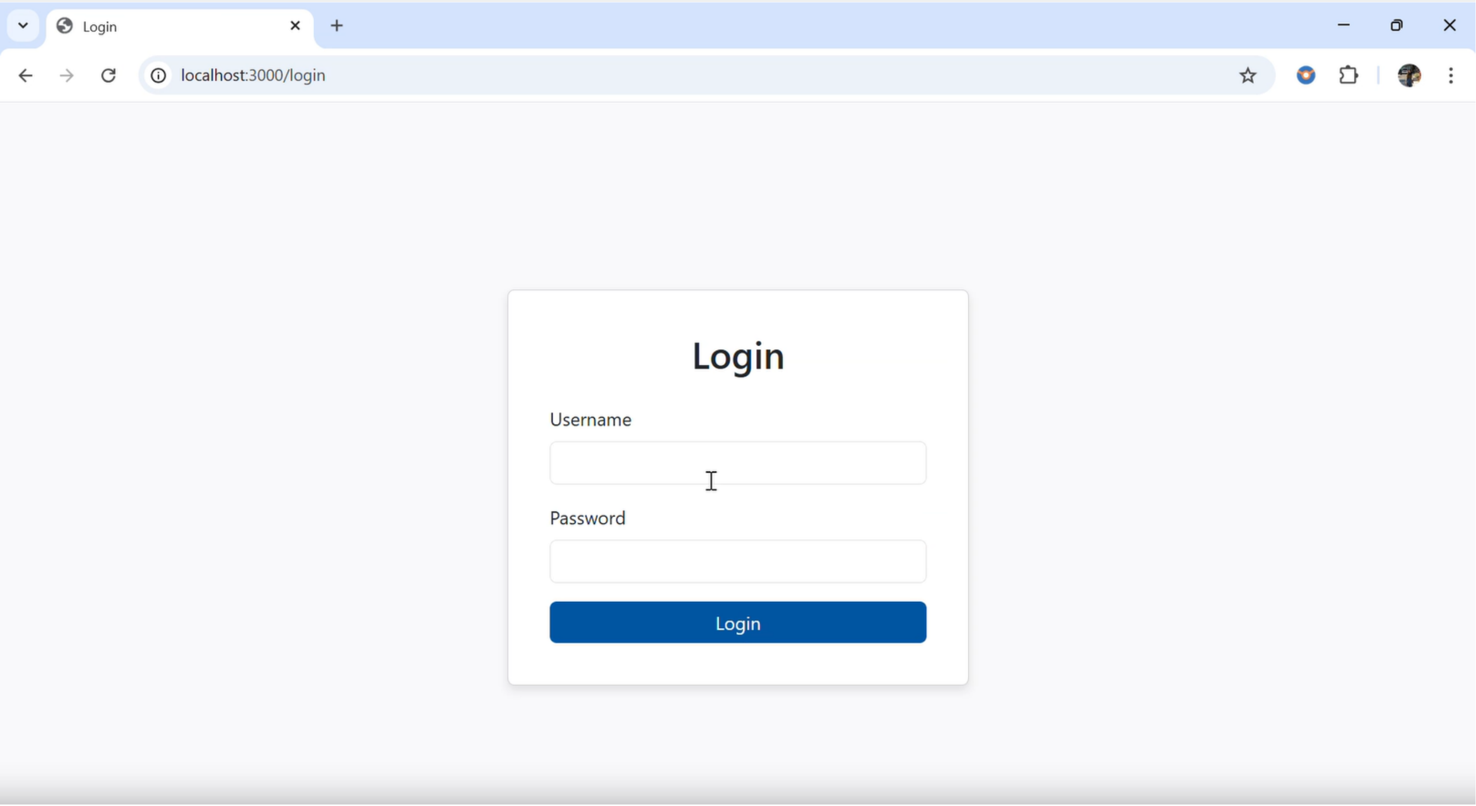
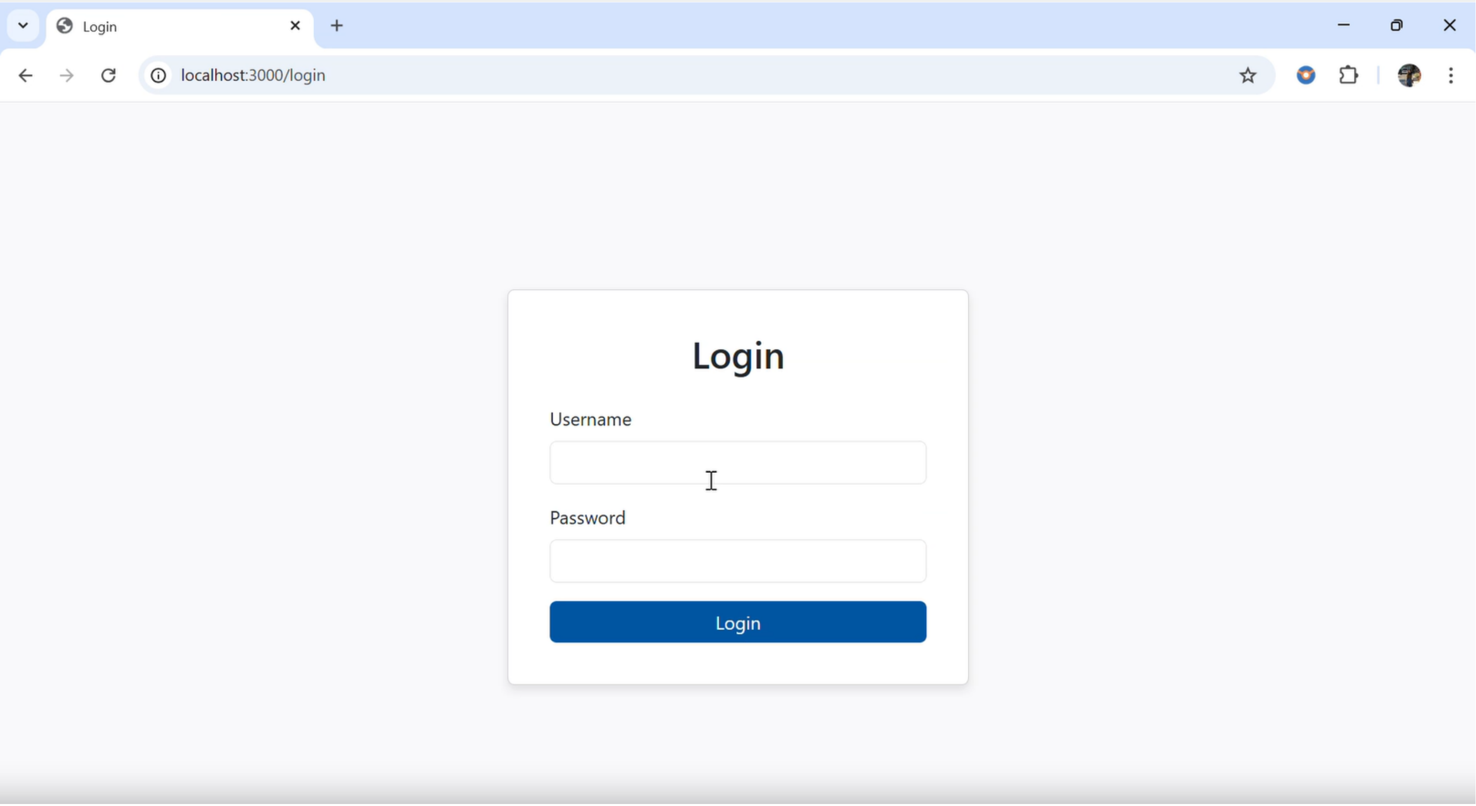


Login Page (/login):

Display a login form with fields for username and password.
Validate the credentials and log the user in if they are correct.
Redirect to the dashboard on successful login.

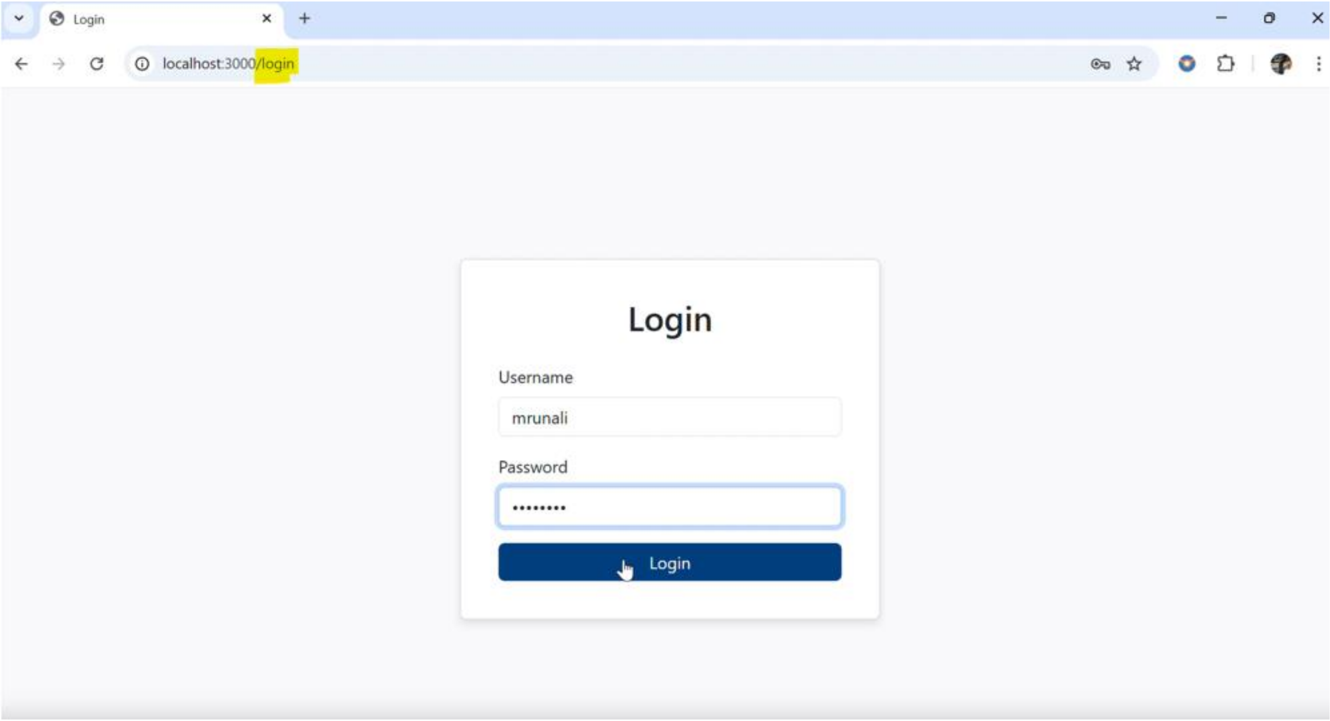
Login Page

Login form with username and password



Here the username is set to Mrunali and password entered is admin123

```
// login creds
const users = [
    { id: 1,
        username: 'mrunali',
        password: bcrypt.hashSync('admin123', 8)
    }
];
```



localhost:3000/login

Login

Username

mrunali

Password

••••••••

Dashboard Page (/dashboard):

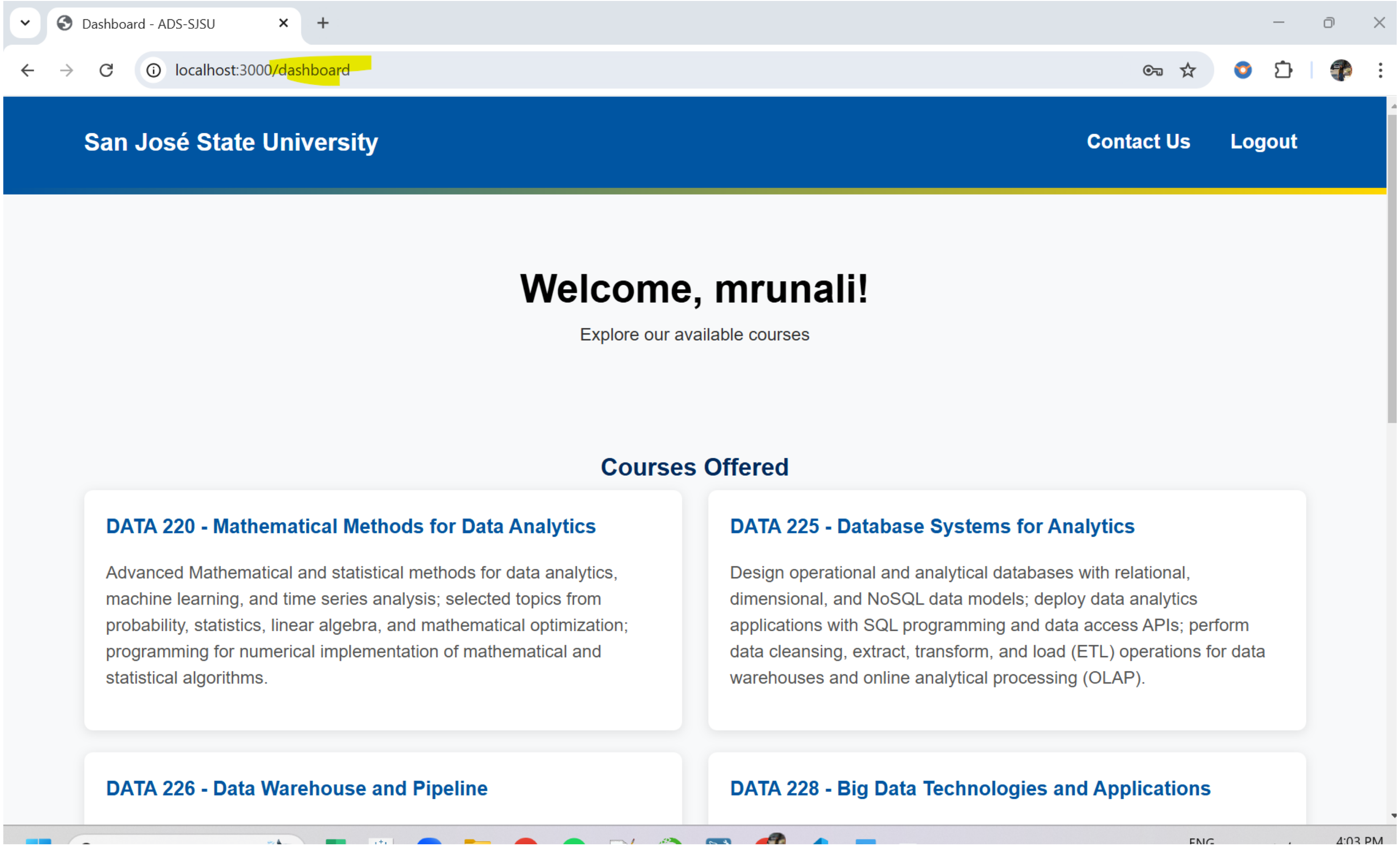
Display a welcome message with the user’s name.

Show a logout link.

Protect this route so only logged-in users can access it.

After user enter’s login credentials, the user is now logged in to the Dashboard page where 8 courses are displayed with the course names and their respective course description[description referred from sjsu ads department website]

Dashboard Page



San José State University

Contact Us Logout

Welcome, mrunali!

Explore our available courses

Courses Offered

DATA 220 - Mathematical Methods for Data Analytics

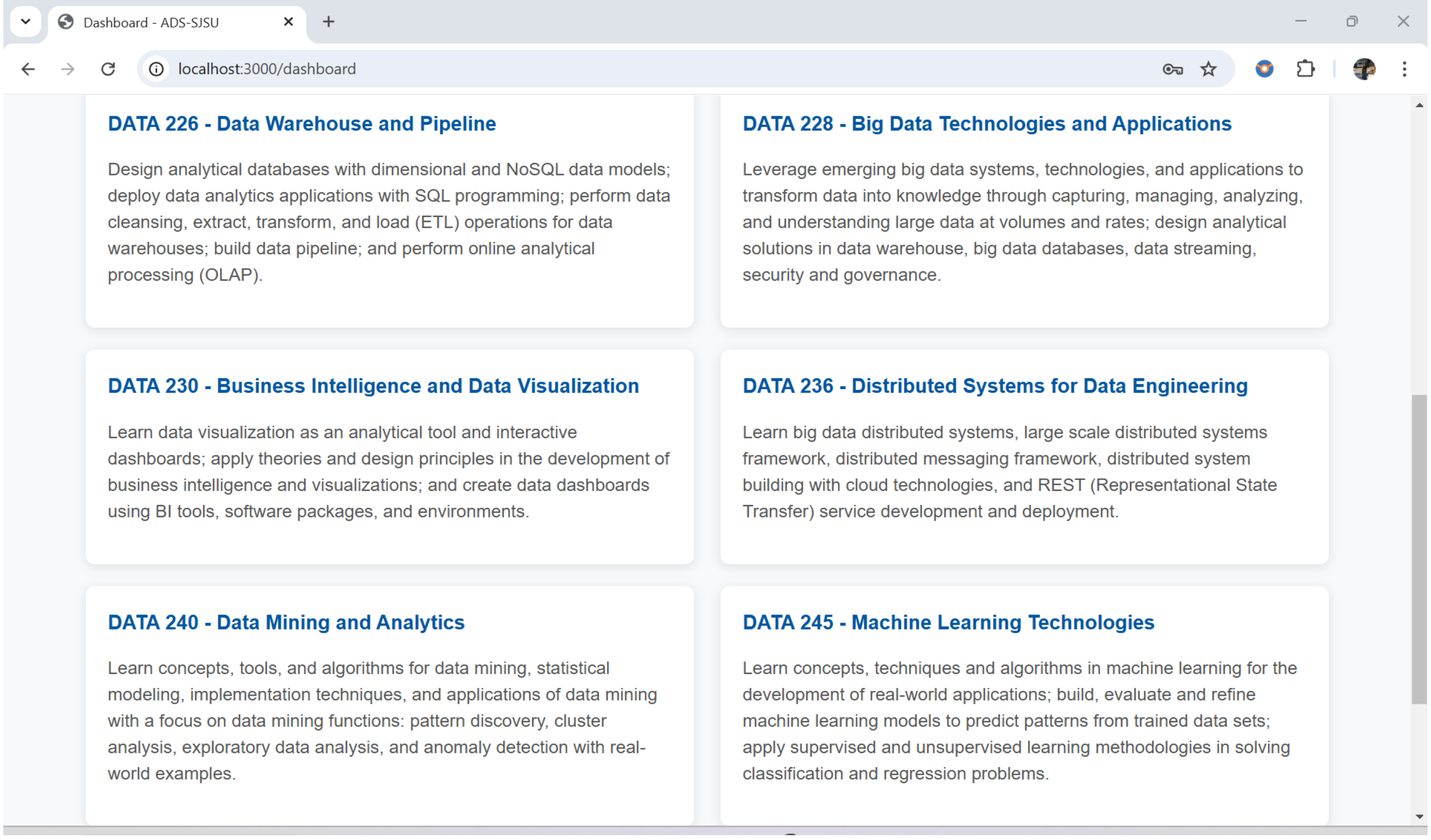
Advanced Mathematical and statistical methods for data analytics, machine learning, and time series analysis; selected topics from probability, statistics, linear algebra, and mathematical optimization; programming for numerical implementation of mathematical and statistical algorithms.

DATA 225 - Database Systems for Analytics

Design operational and analytical databases with relational, dimensional, and NoSQL data models; deploy data analytics applications with SQL programming and data access APIs; perform data cleansing, extract, transform, and load (ETL) operations for data warehouses and online analytical processing (OLAP).

DATA 226 - Data Warehouse and Pipeline

DATA 228 - Big Data Technologies and Applications



DATA 226 - Data Warehouse and Pipeline

Design analytical databases with dimensional and NoSQL data models; deploy data analytics applications with SQL programming; perform data cleansing, extract, transform, and load (ETL) operations for data warehouses; build data pipeline; and perform online analytical processing (OLAP).

DATA 228 - Big Data Technologies and Applications

Leverage emerging big data systems, technologies, and applications to transform data into knowledge through capturing, managing, analyzing, and understanding large data at volumes and rates; design analytical solutions in data warehouse, big data databases, data streaming, security and governance.

DATA 230 - Business Intelligence and Data Visualization

Learn data visualization as an analytical tool and interactive dashboards; apply theories and design principles in the development of business intelligence and visualizations; and create data dashboards using BI tools, software packages, and environments.

DATA 236 - Distributed Systems for Data Engineering

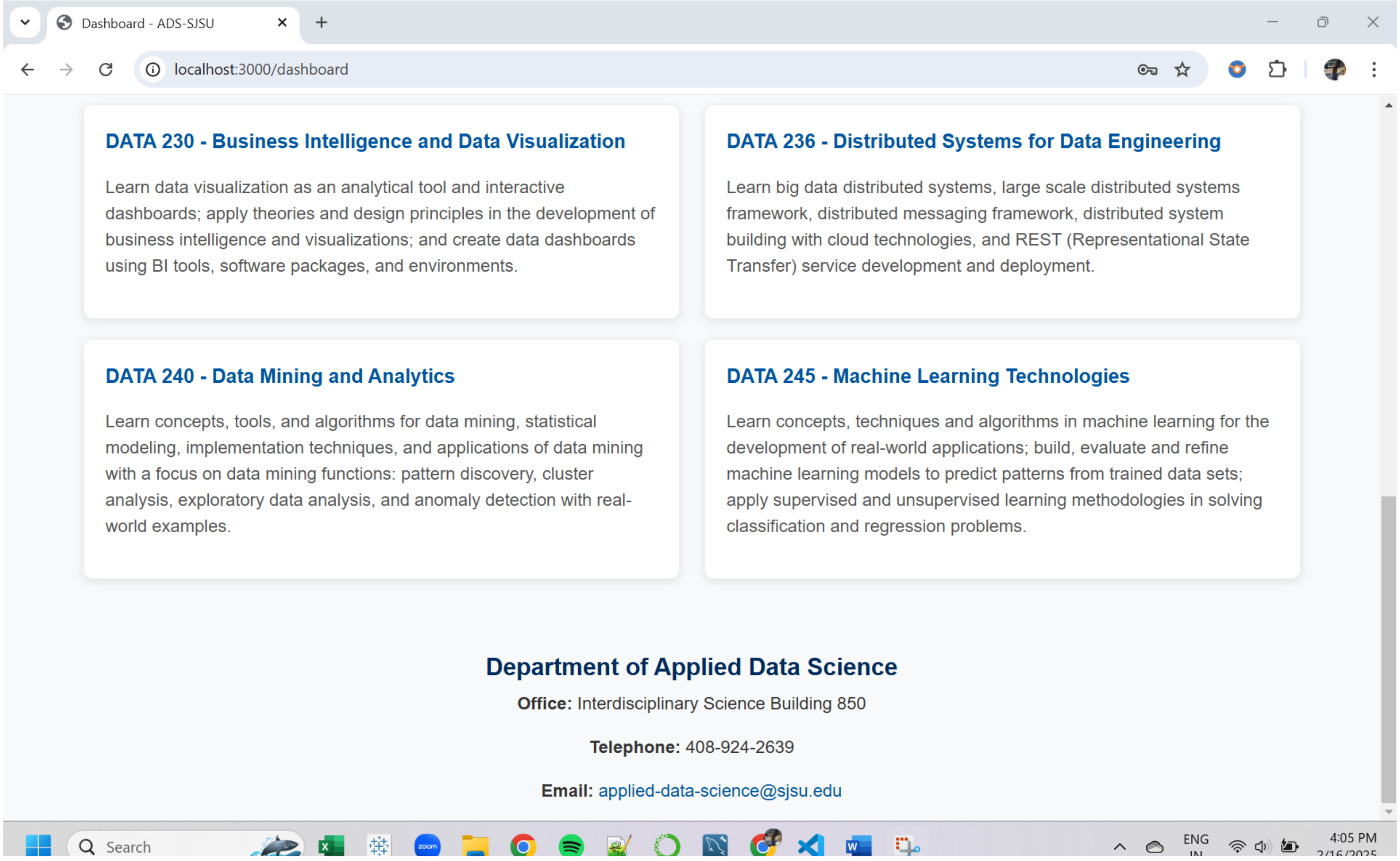
Learn big data distributed systems, large scale distributed systems framework, distributed messaging framework, distributed system building with cloud technologies, and REST (Representational State Transfer) service development and deployment.

DATA 240 - Data Mining and Analytics

Learn concepts, tools, and algorithms for data mining, statistical modeling, implementation techniques, and applications of data mining with a focus on data mining functions: pattern discovery, cluster analysis, exploratory data analysis, and anomaly detection with real-world examples.

DATA 245 - Machine Learning Technologies

Learn concepts, techniques and algorithms in machine learning for the development of real-world applications; build, evaluate and refine machine learning models to predict patterns from trained data sets; apply supervised and unsupervised learning methodologies in solving classification and regression problems.



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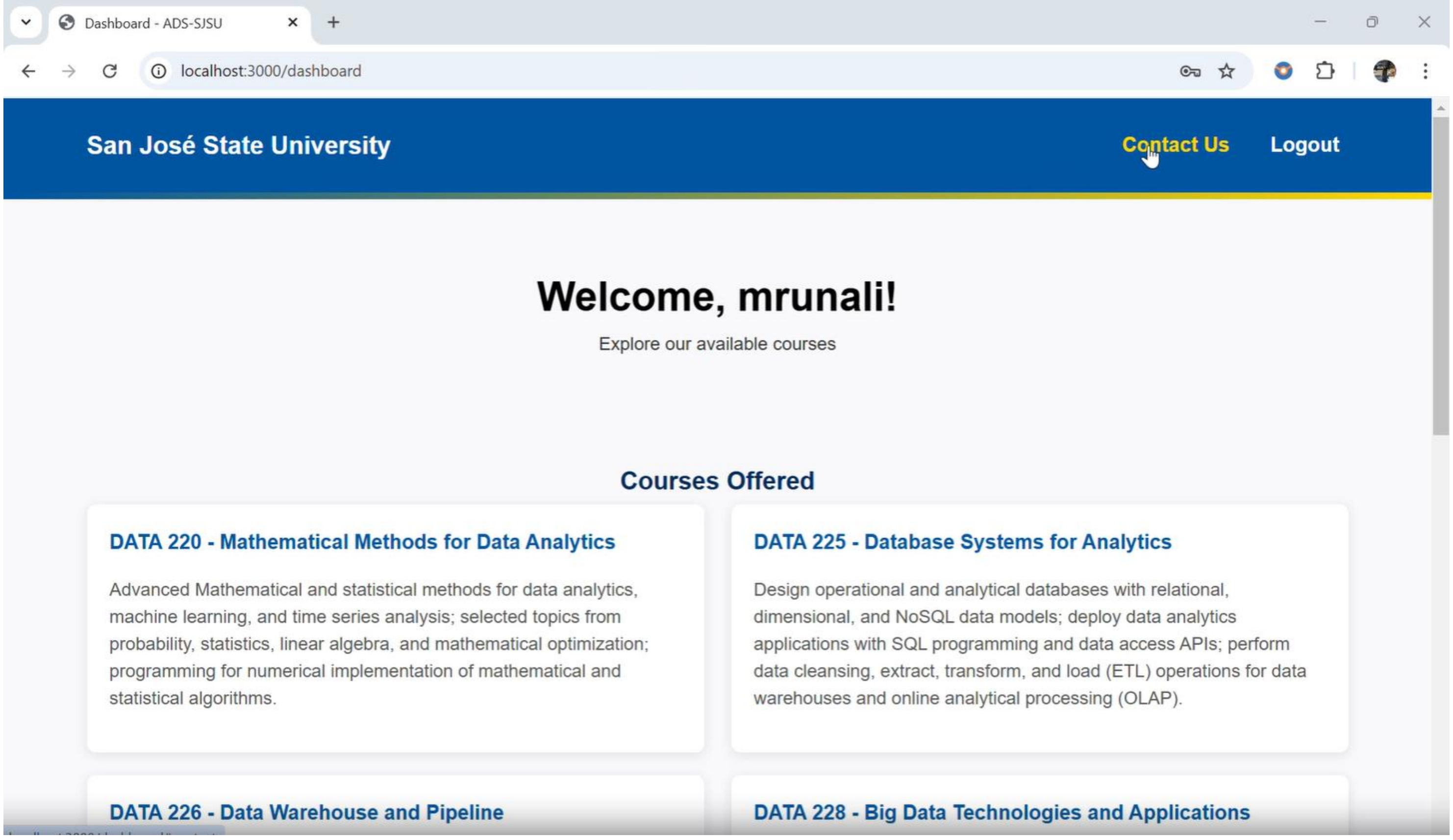
Department of Applied Data Science

Office: Interdisciplinary Science Building 850

Telephone: 408-924-2639

Email: applied-data-science@sjsu.edu

Also added **Contact Us** , a clickable link on the dashboard page. Upon clicking it scrolls to shows the department contact details



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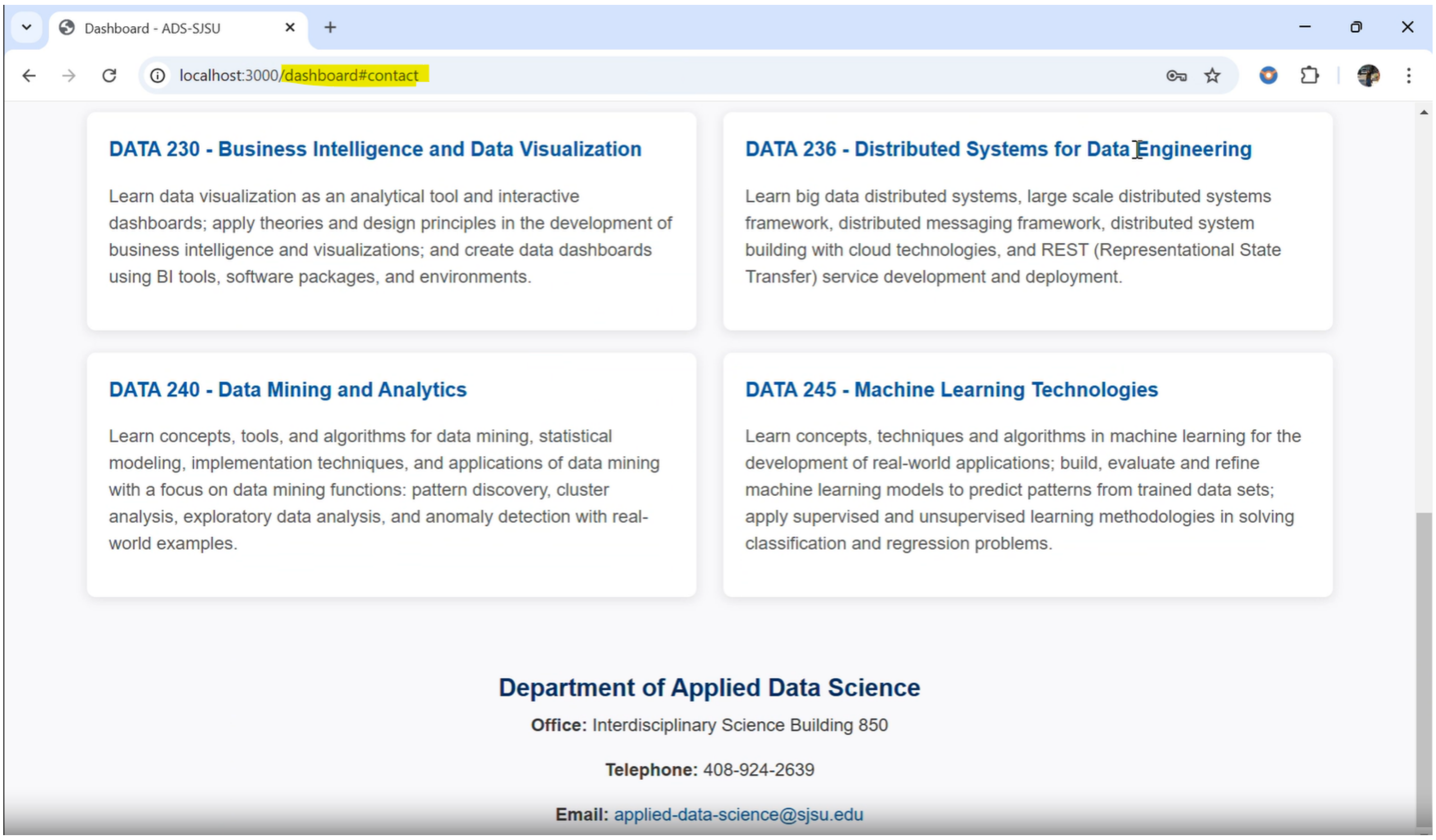

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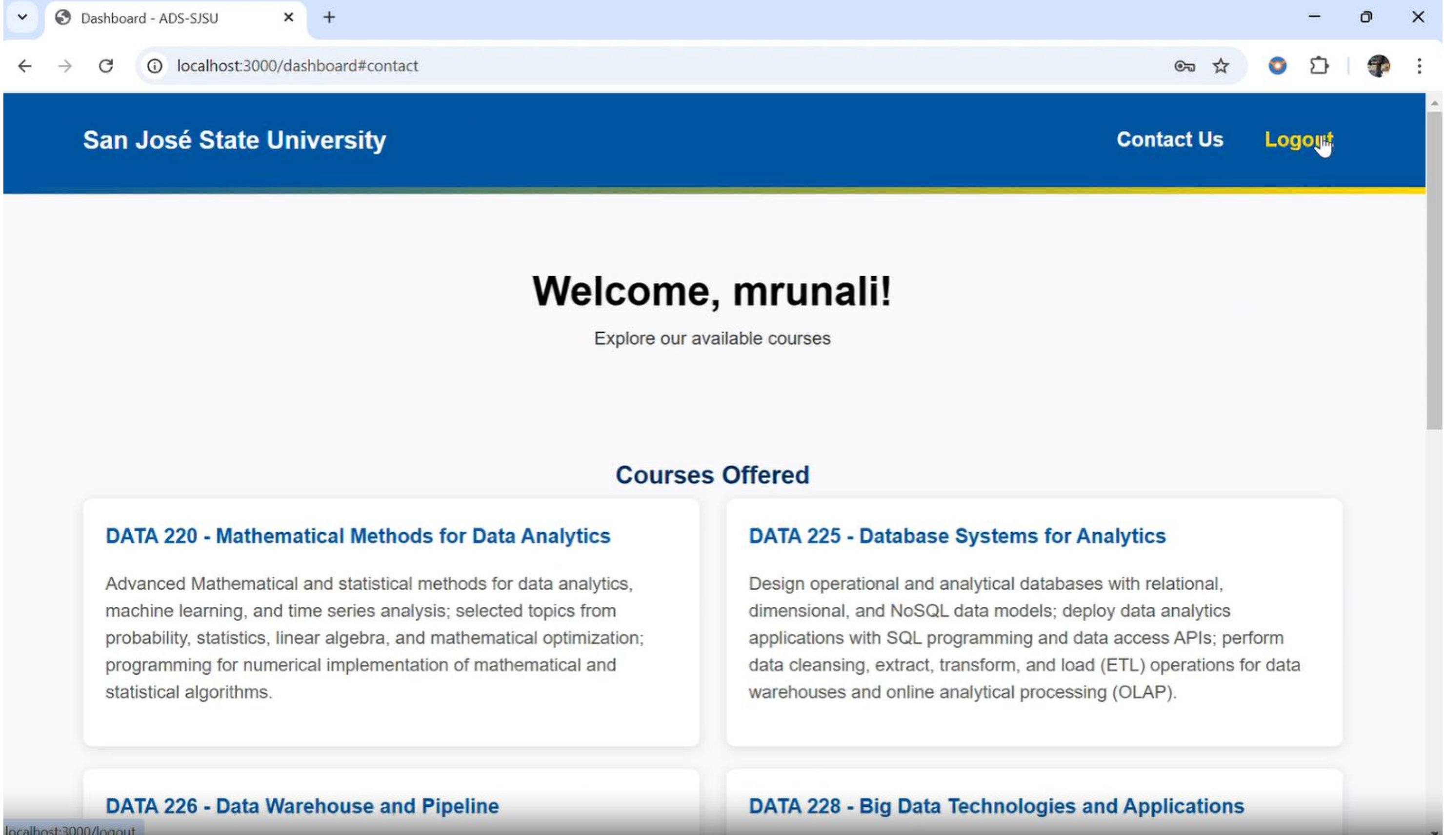
Logout (/logout):

Destroy the session and redirect the user to the home page.

And once user clicks on the navbar logout button, it **redirects user back to the Homepage**



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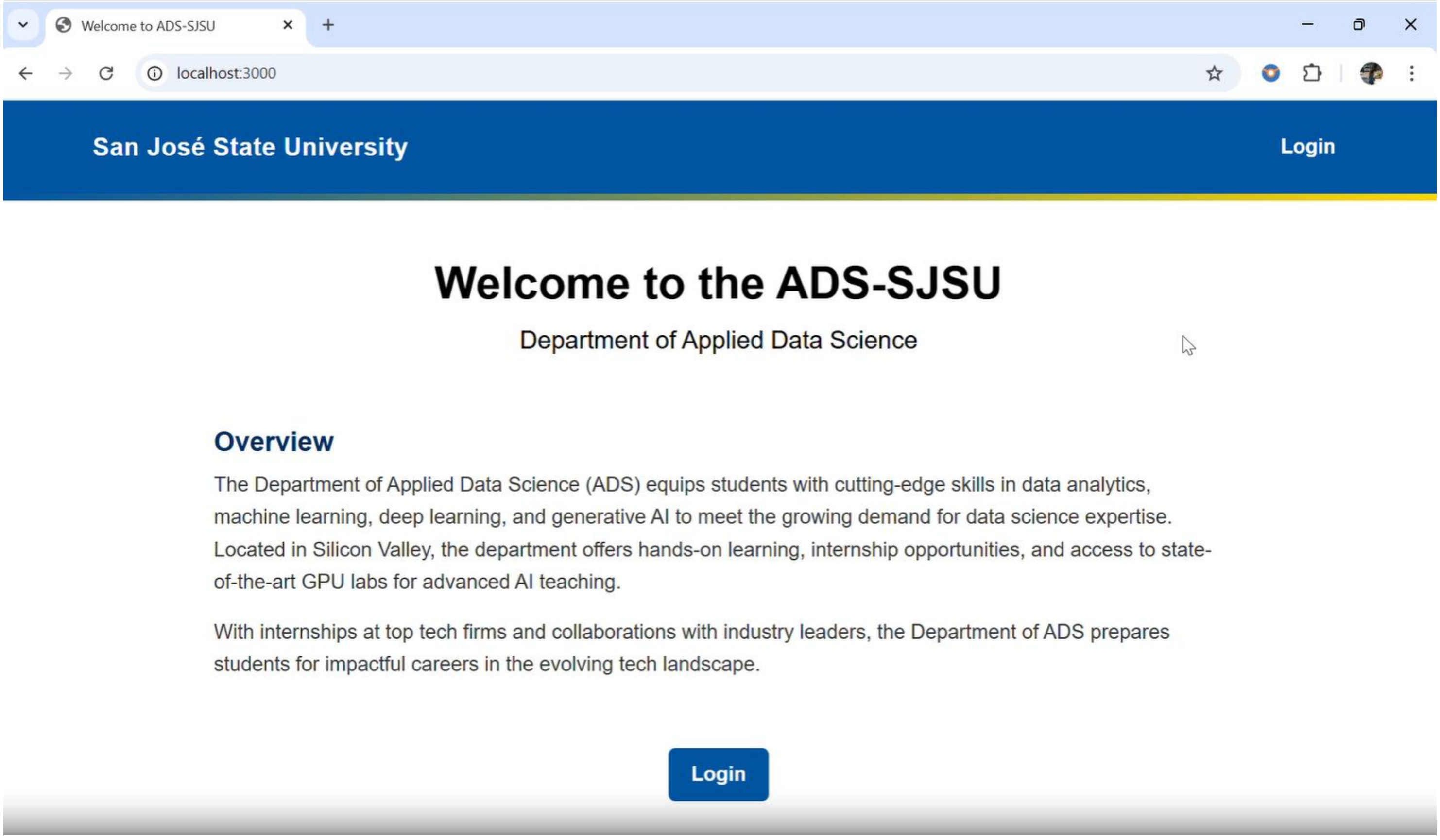

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2. Session Management- 4 points

Use express-session to manage user sessions.

Store the logged-in user’s information in the session.

Ensure that the session cookie is secure

3. Styling with Bootstrap – 2 points

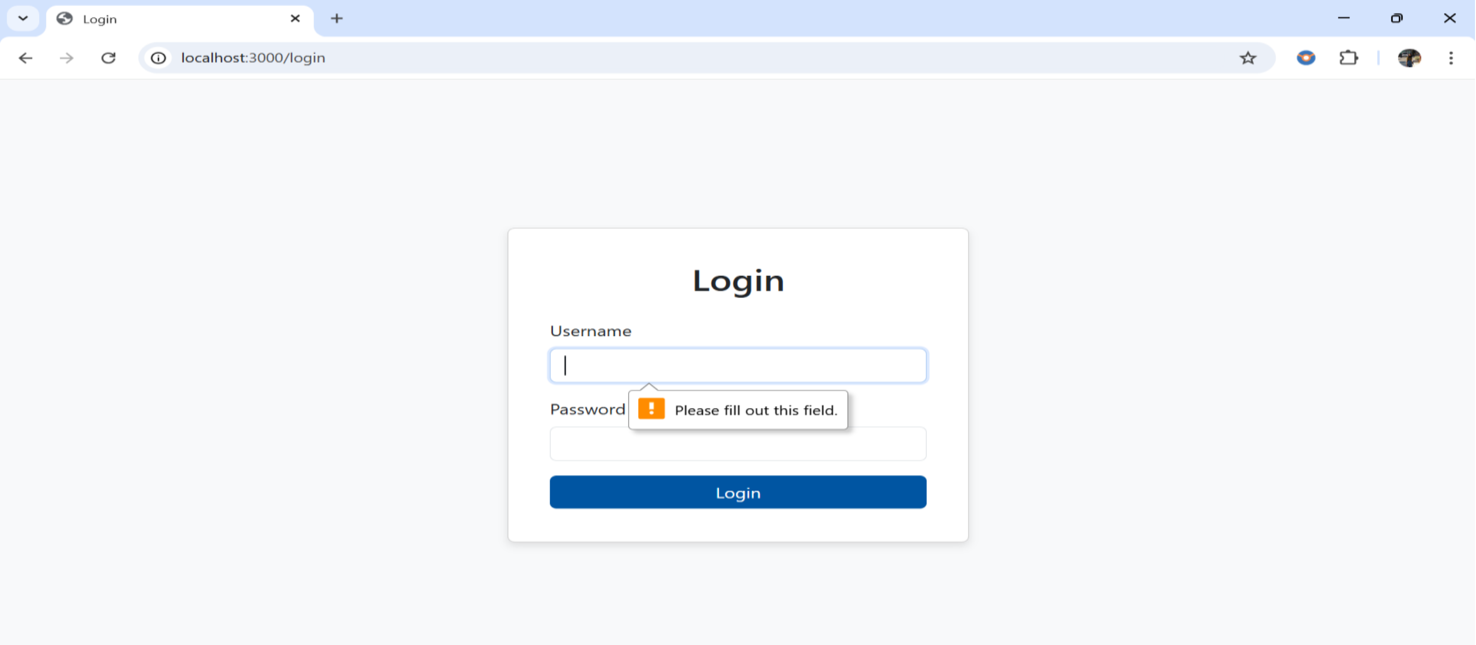
Use Bootstrap to style all pages.

Make the application responsive and visually appealing.

Use Bootstrap components like: Navbar for navigation, Cards for forms and content, Buttons and alerts for actions and messages.

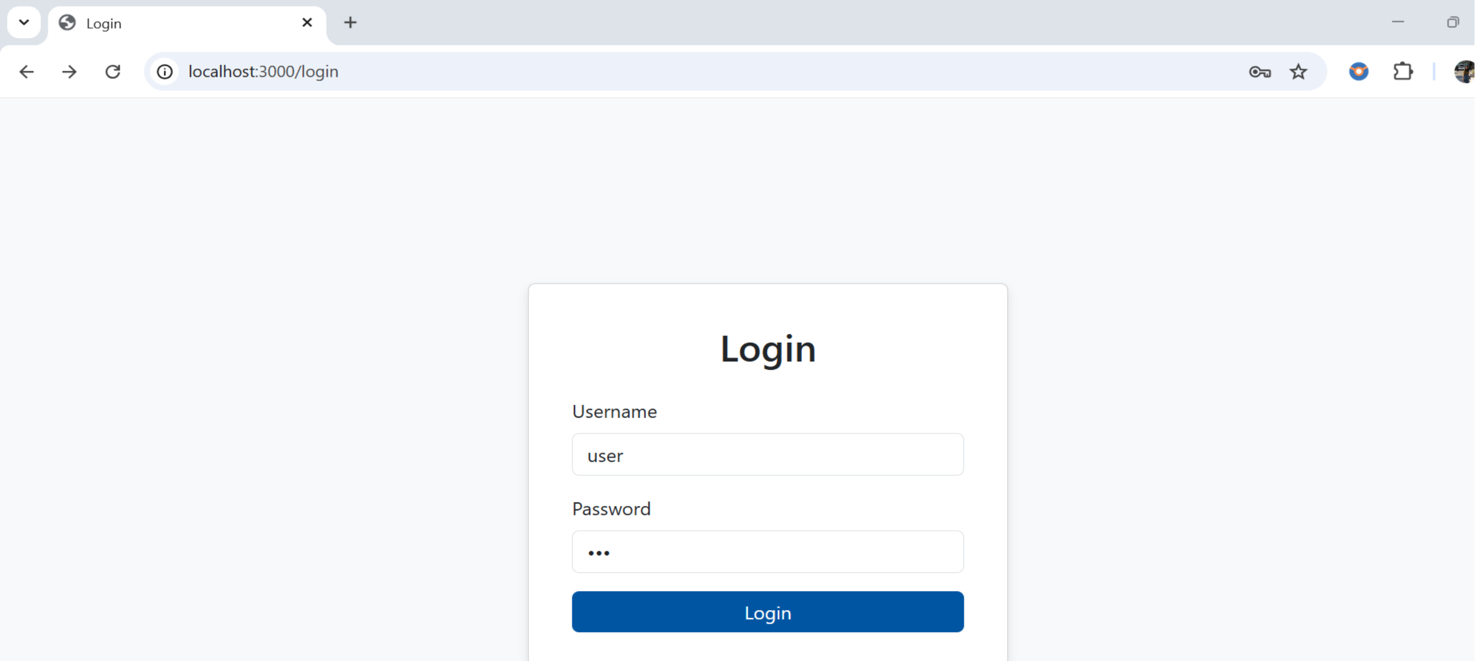
Navbar for navigation, Cards for forms and content, Buttons and alerts for actions and messages.

If user clicks on login button without entering username or password.



Please fill out this field.

If user enter’s invalid credentials and clicks on login button. Error message: **"Invalid username or password!"** is shown.



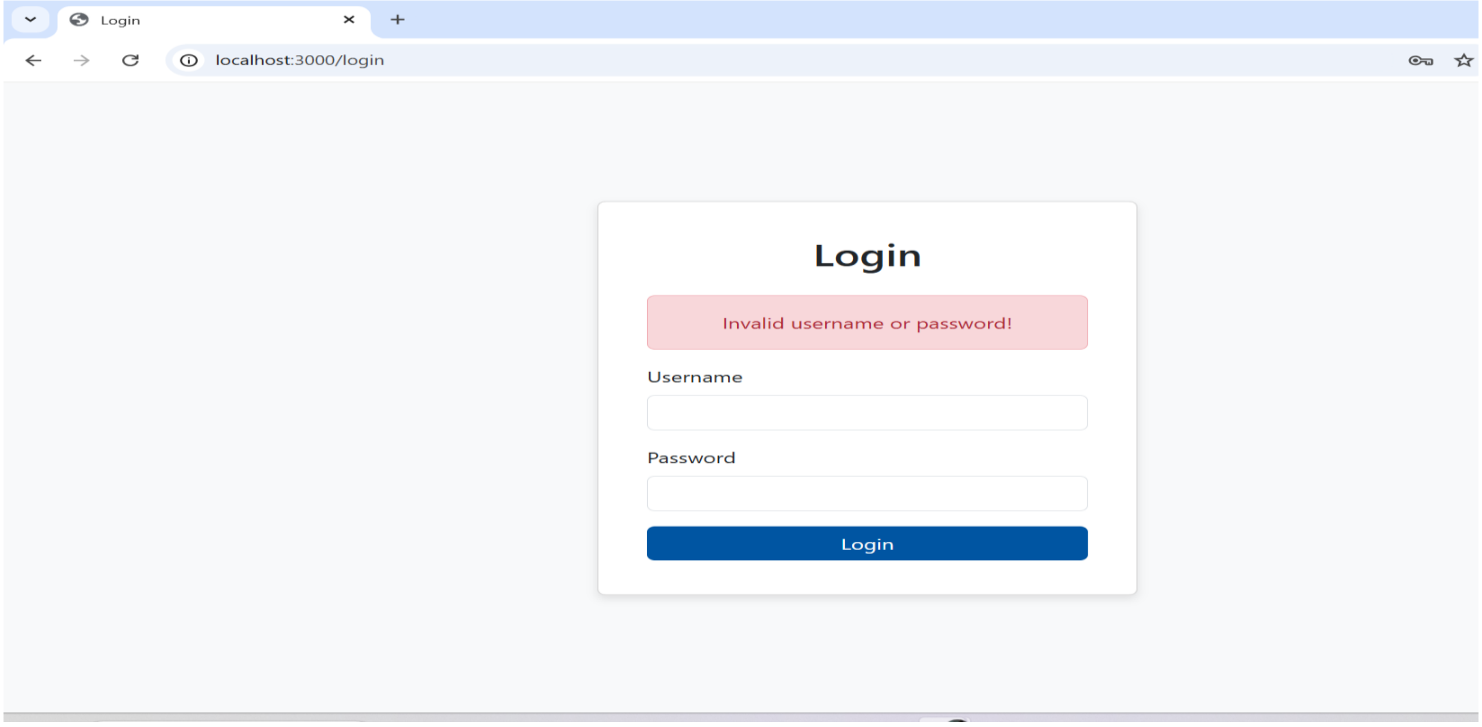
Login

Username

user

Password

•••



Login

Invalid username or password!

Username

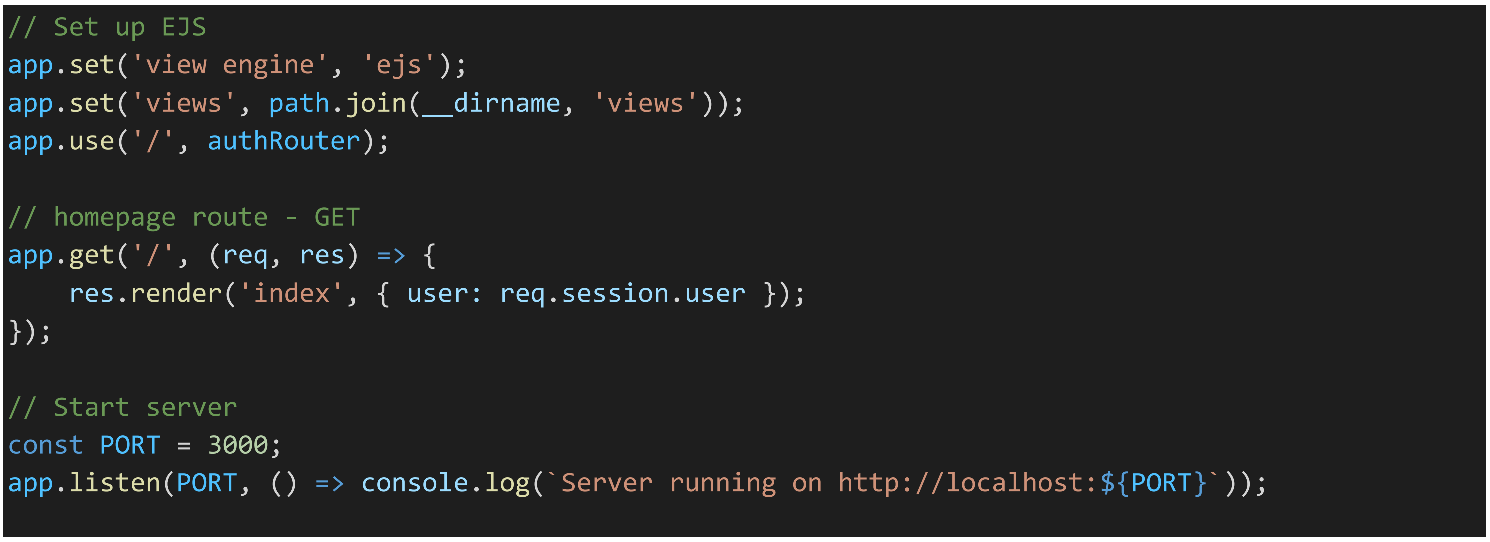
Password

app.js code

```
const express = require('express');
const session = require('express-session');
const bodyParser = require('body-parser');
const path = require('path');

const app = express();
const authRouter = require('./routes/auth');

// Middleware
app.use(bodyParser.urlencoded({ extended: true }));
app.use(session({
    secret: 'your-secret-key',
    resave: false,
    saveUninitialized: true,
    cookie: { secure: false }
}));
```

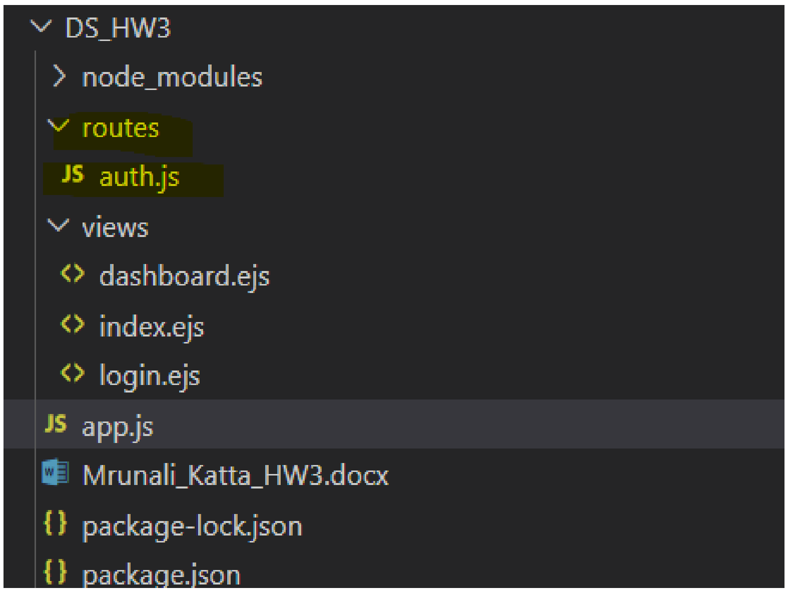


```
// Set up EJS
app.set('view engine', 'ejs');
app.set('views', path.join(__dirname, 'views'));
app.use('/', authRouter);

// homepage route - GET
app.get('/', (req, res) => {
    res.render('index', { user: req.session.user });
});

// Start server
const PORT = 3000;
app.listen(PORT, () => console.log(`Server running on http://localhost:${PORT}`));
```

VS Code Folder structure . separate routes folder with auth.js file for all routes



```
DS_HW3
  node_modules
  routes
    auth.js
  views
    dashboard.ejs
    index.ejs
    login.ejs
  app.js
  Mrunali_Katta_HW3.docx
  package-lock.json
  package.json
```