Matchify

An app that makes you social.

Website: matchify.com

Client Team: Group-1

Dev Team: Group-10

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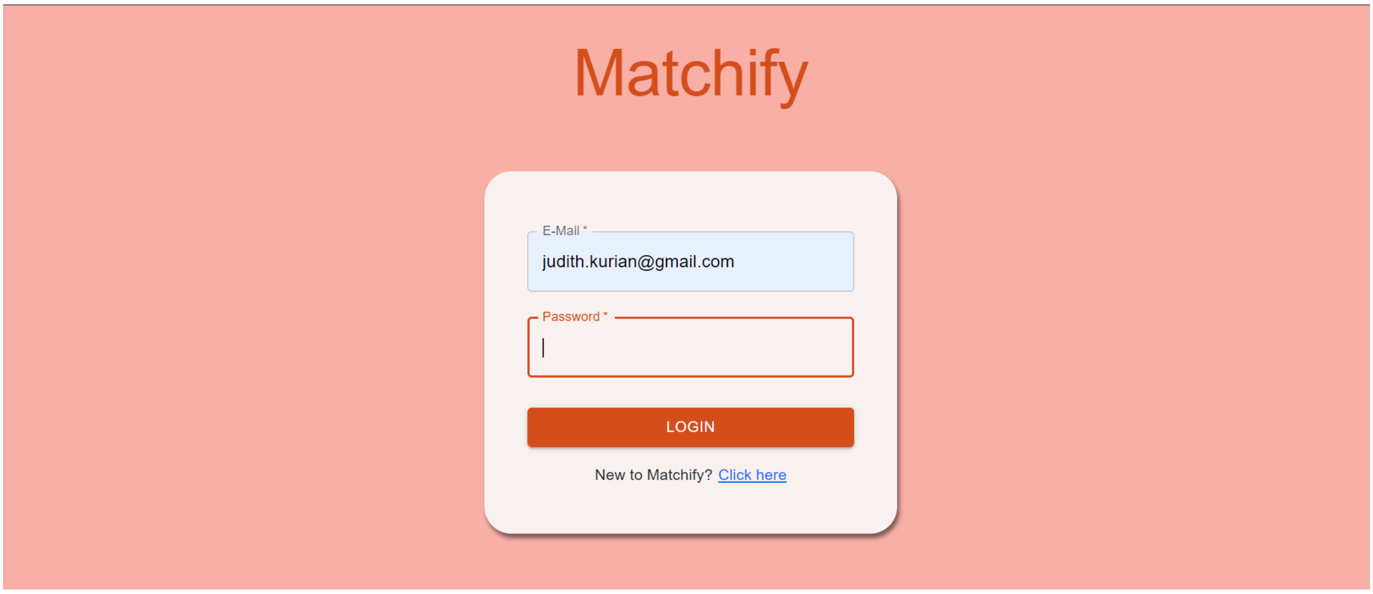
Detailed Use Case Scenario

1. Login page

When the page is first accessed, the user is directly redirected to the login page. On this page, existing users can log in by inserting their email and password and clicking the log-in button. If the user is not already registered with the application and is new, then they can click on the “register link” provided on the Login page.



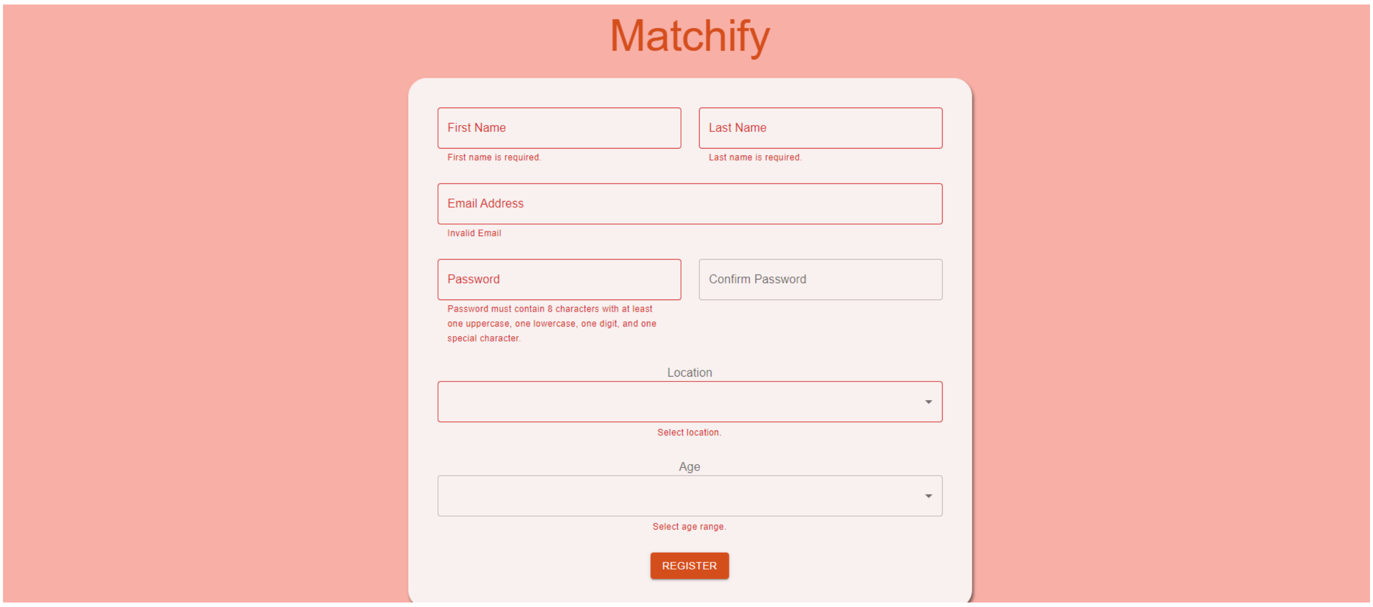
Matchify

E-Mail * judith.kurian@gmail.com

Password *

2. Register page

Upon clicking on the link for registering as a new user of the application (the link is available on the login page), the user will be redirected to the registration page. On the register page fields like “Name”, “E-mail”, “password”, and “City” are collected. All fields on this page are mandatory, and the password field is hidden with various constraints and a particular required format (i.e., minimum 8 characters, combination of alphanumeric characters, etc.) Once the user fills in all the required information on the register page properly, they can submit the registration form. Upon successful registration, the user will be directly redirected to the fill my interest page.



Matchify

First Name
First name is required.

Last Name
Last name is required.

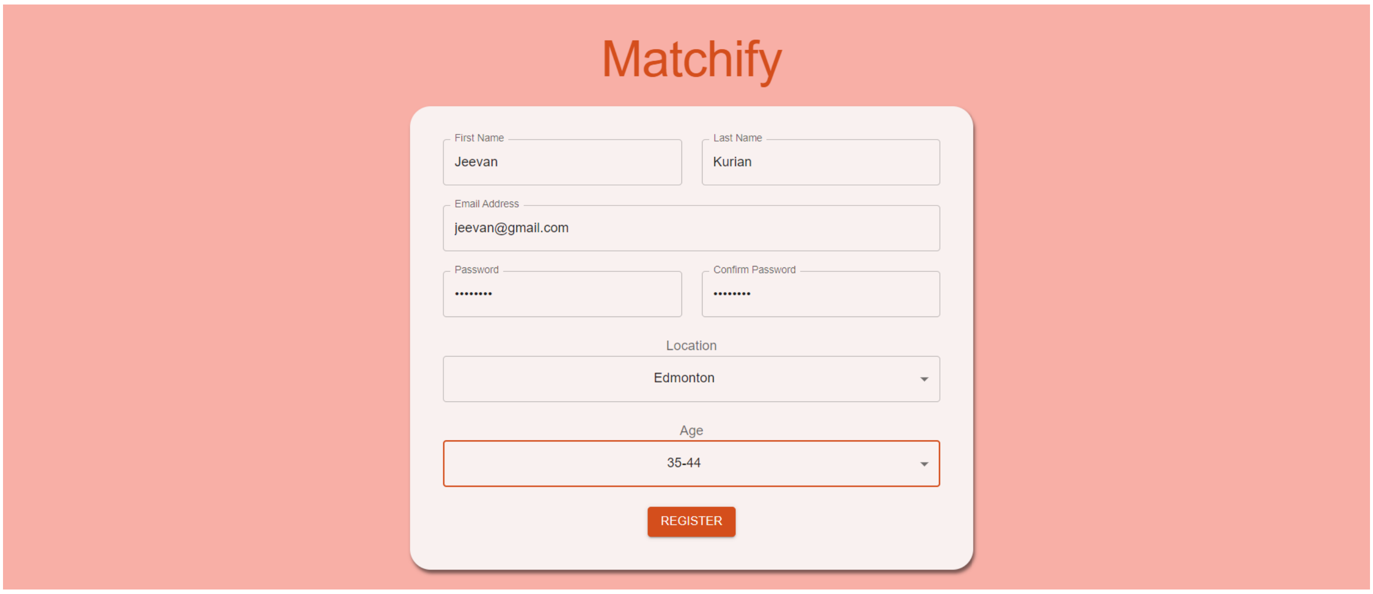
Email Address
Invalid Email

Password
Password must contain 8 characters with at least one uppercase, one lowercase, one digit, and one special character.

Confirm Password

Location
Select location.

Age
Select age range.



Matchify

First Name: Jeevan

Last Name: Kurian

Email Address: jeevan@gmail.com

Password: ••••••••

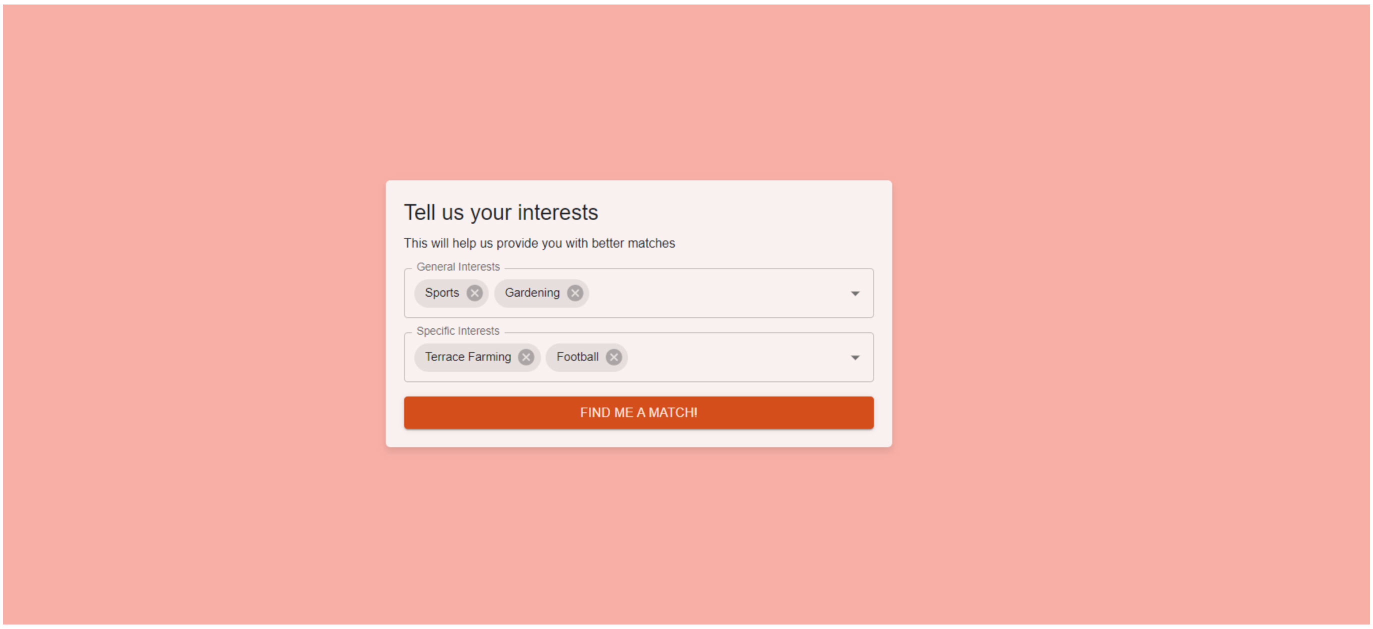
Confirm Password: ••••••••

Location: Edmonton

Age: 35-44

3. Fill my interest

After successful registration, the user then gets redirected to the “Fill my interests” page where they can fill in two different types of interests: a) Selecting general interests: The user selects from a range of general interests (sports, cooking, academics, etc.) b) Selecting sub-interests: The user selects from a list of sub-issues that are related to the general issues they selected (Sport: badminton, football, etc). Upon successfully inserting all the required fields on this page (General and sub-interests), the user will be redirected to the User dashboard / Home page with their matches based on their interest data.



Tell us your interests

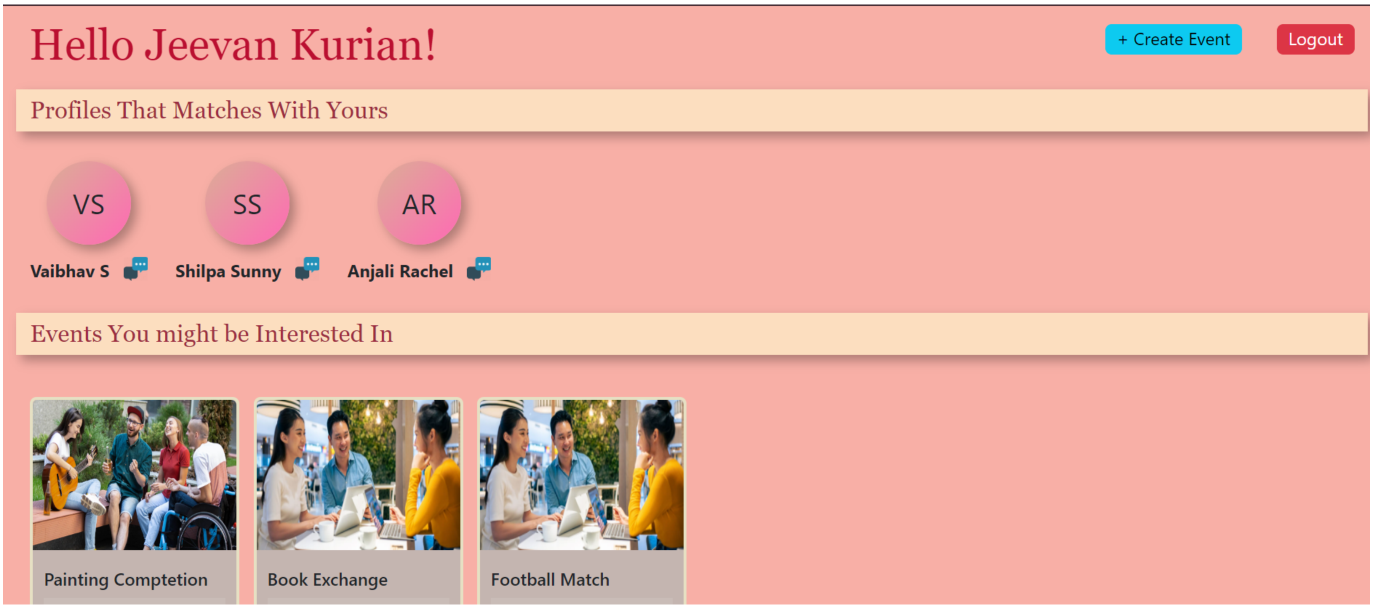
This will help us provide you with better matches

General Interests: Sports, Gardening

Specific Interests: Terrace Farming, Football

4. User dashboard/ Home page

Once the user is successfully logged in via the “Log-in” page or the “Register page”, they’ll then redirect to the user dashboard. The dashboard contains various components for the following features: “Matched users”, “Recommended events”, “My events”, “Event creation”. An in-depth use case scenario for all these features has been given in the following sections. The user can click on the “Log-out” button to log out of the application, upon clicking on the said button the user will get logged out of the application and get redirected to the “Login page”.



Hello Jeevan Kurian!

Profiles That Matches With Yours

Vaibhav S

Shilpa Sunny

Anjali Rachel

Events You might be Interested In

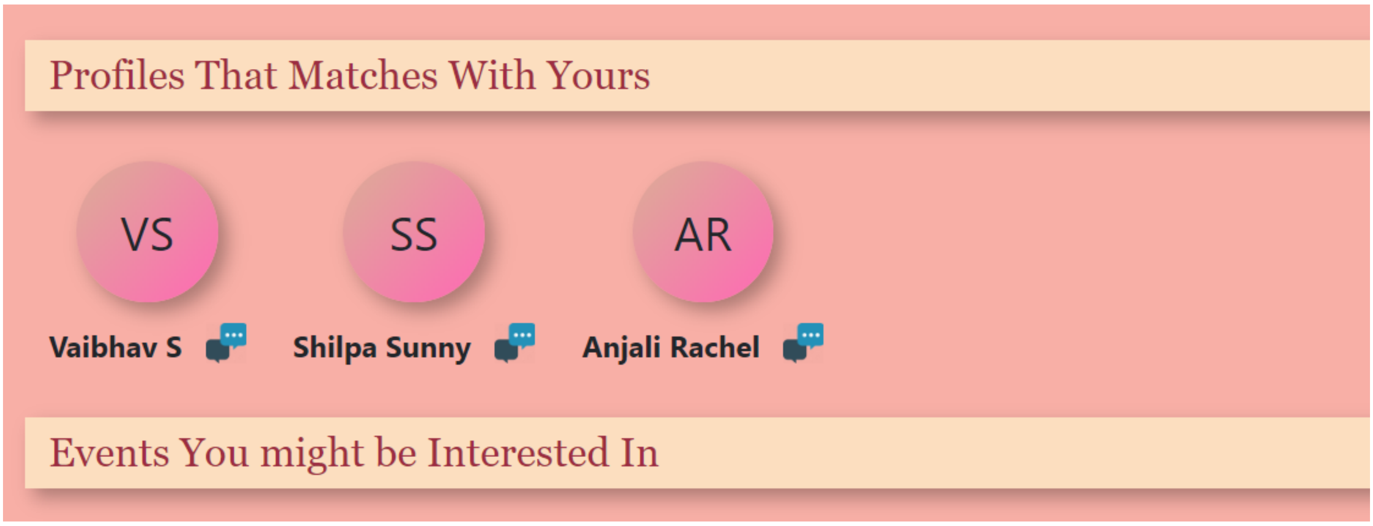
Painting Comptetion

Book Exchange

Football Match

5. Matched users

User, once logged in, could see other users with similar interests recommended for the logged-in user under the “Matched users” section. These “Matched users” are recommended based on the similarity score that is generated based on the similarity of the “interests” of users. These interests are stated by the users when they first log into the application.



Profiles That Matches With Yours

Vaibhav S

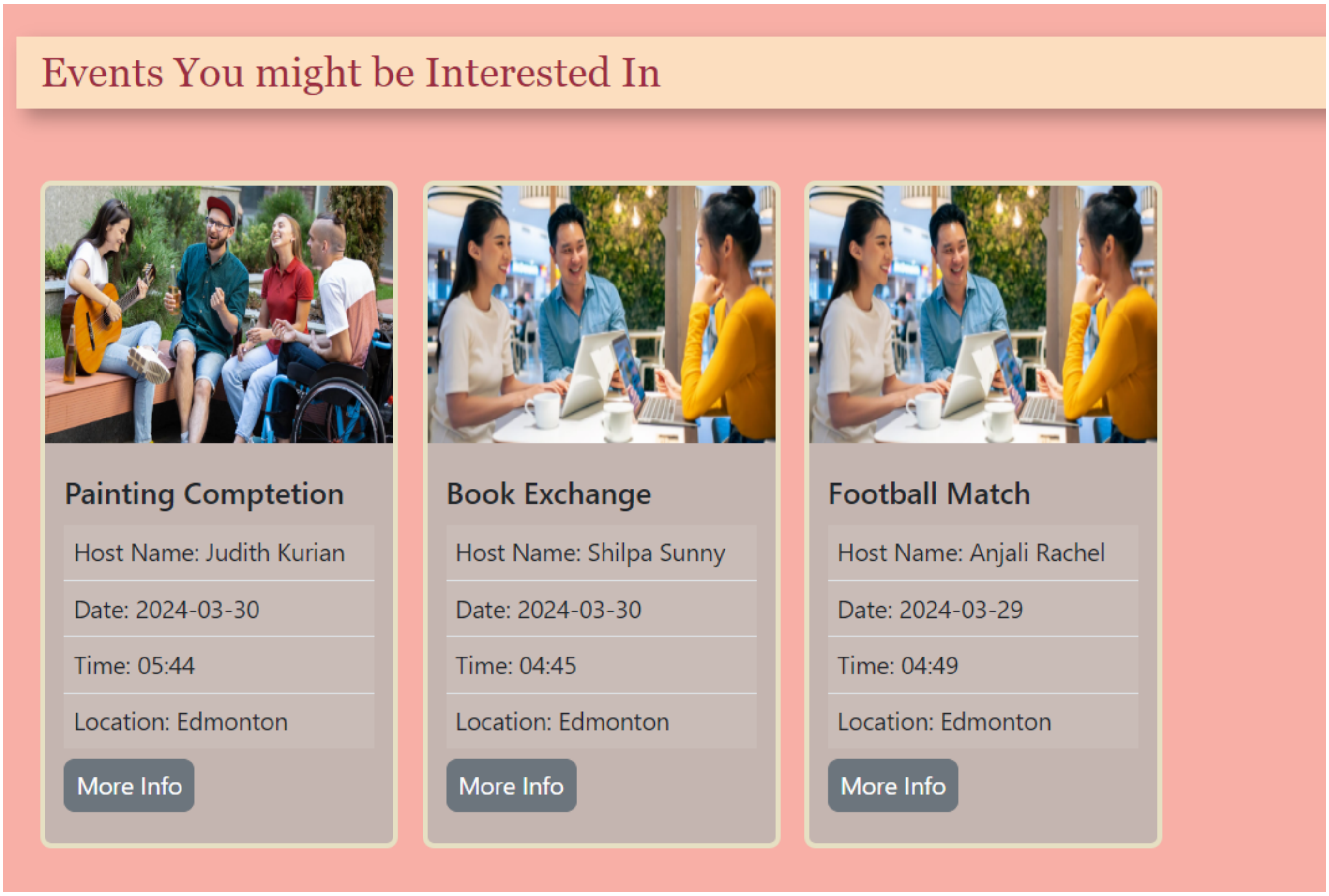
Shilpa Sunny

Anjali Rachel

Events You might be Interested In

6. Recommended events

On the user dashboard/ home page, users can see their recommended events. These events are created by other users and recommended to the logged-in user based on their interest data. User can click on the recommended events cards that will redirect them to the “Event details” page.



Events You might be Interested In

Painting Comptetion

Host Name: Judith Kurian

Date: 2024-03-30

Time: 05:44

Location: Edmonton

Book Exchange

Host Name: Shilpa Sunny

Date: 2024-03-30

Time: 04:45

Location: Edmonton

Football Match

Host Name: Anjali Rachel

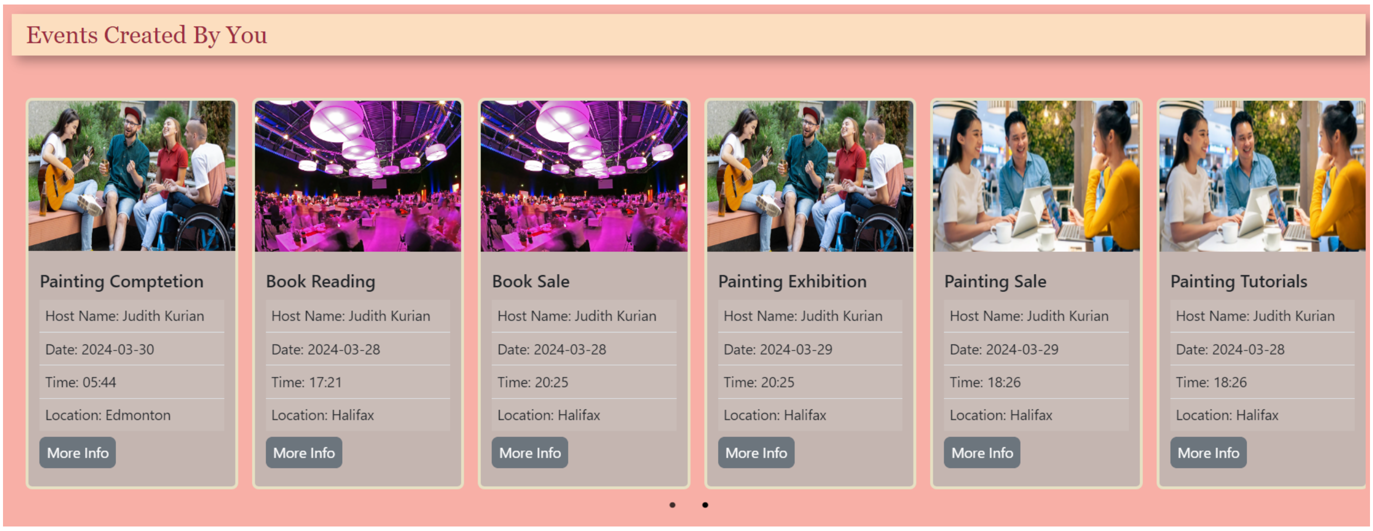
Date: 2024-03-29

Time: 04:49

Location: Edmonton

7. My events

The user can create their own events by clicking on the “Create event” button on the user dashboard. These logged-in user-created events will then get populated on the dashboard under the “Events Created By You” section. User can click on the recommended events cards that will redirect them to the “Event details” page.



Events Created By You

Painting Comptetion
Host Name: Judith Kurian
Date: 2024-03-30
Time: 05:44
Location: Edmonton

Book Reading
Host Name: Judith Kurian
Date: 2024-03-28
Time: 17:21
Location: Halifax

Book Sale
Host Name: Judith Kurian
Date: 2024-03-28
Time: 20:25
Location: Halifax

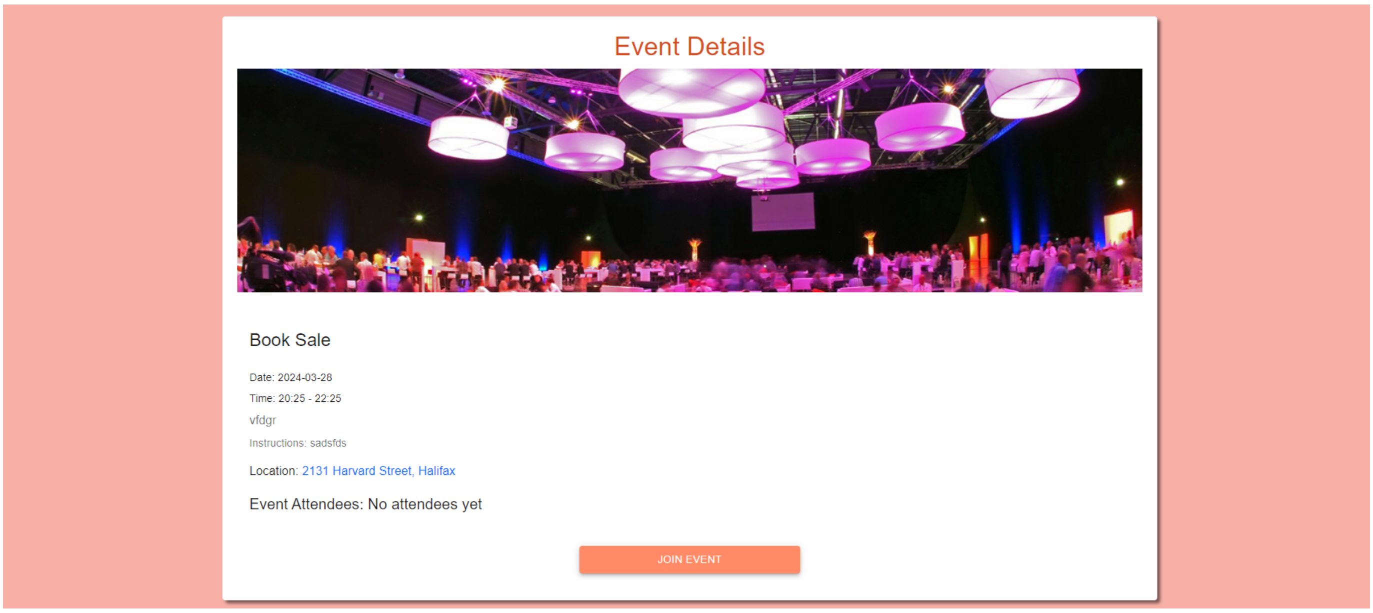
Painting Exhibition
Host Name: Judith Kurian
Date: 2024-03-29
Time: 20:25
Location: Halifax

Painting Sale
Host Name: Judith Kurian
Date: 2024-03-29
Time: 18:26
Location: Halifax

Painting Tutorials
Host Name: Judith Kurian
Date: 2024-03-28
Time: 18:26
Location: Halifax

8. Event details

Upon clicking on the event cards (either the recommended or my event cards displayed on the user dashboard), the event details page would open. On this page user can see all the event details such as Title, description, instruction, and most importantly event location and timing. User can click on the location and that will redirect them to the respective location of the event on Google Maps (This is achieved by using the latitude and longitude data) User can choose to join or leave the event and can also see the names of all the event attendees and can even chat with them by clicking on the chat icon beside their names.



Event Details

Book Sale

Date: 2024-03-28
Time: 20:25 - 22:25
vfdgr
Instructions: sadsfds
Location: 2131 Harvard Street, Halifax

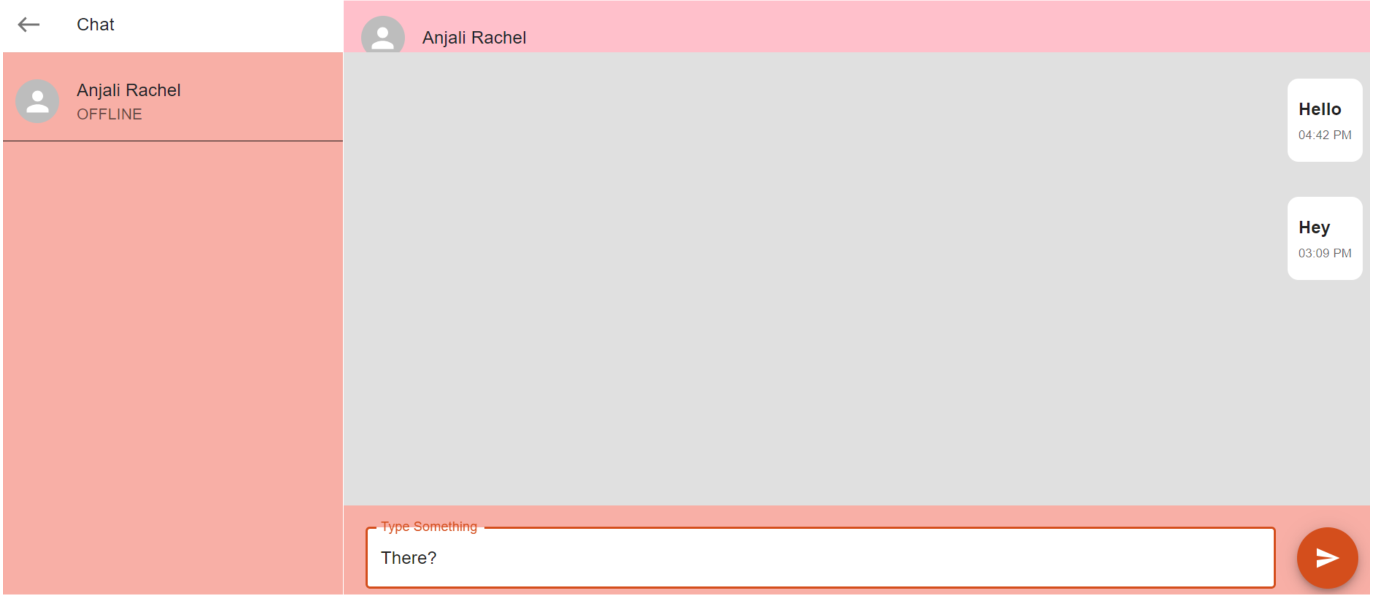
Event Attendees: No attendees yet

9. User Chat

Users can engage in chat sessions with other registered users on the application. There are two ways to initiate a chat session:

- **a) Matched Users**: By clicking on the chat icon on the “Matched users” cards, users can start a chat session with the selected “Matched user.”
- **b) Event Attendees**: By clicking on the chat icon beside the names of the event attendees in the “Event attendee” list on the “Event details” page.

On the actual chat page, users will be able to engage in conversations with other users and see their online/offline status.



Hello
04:42 PM

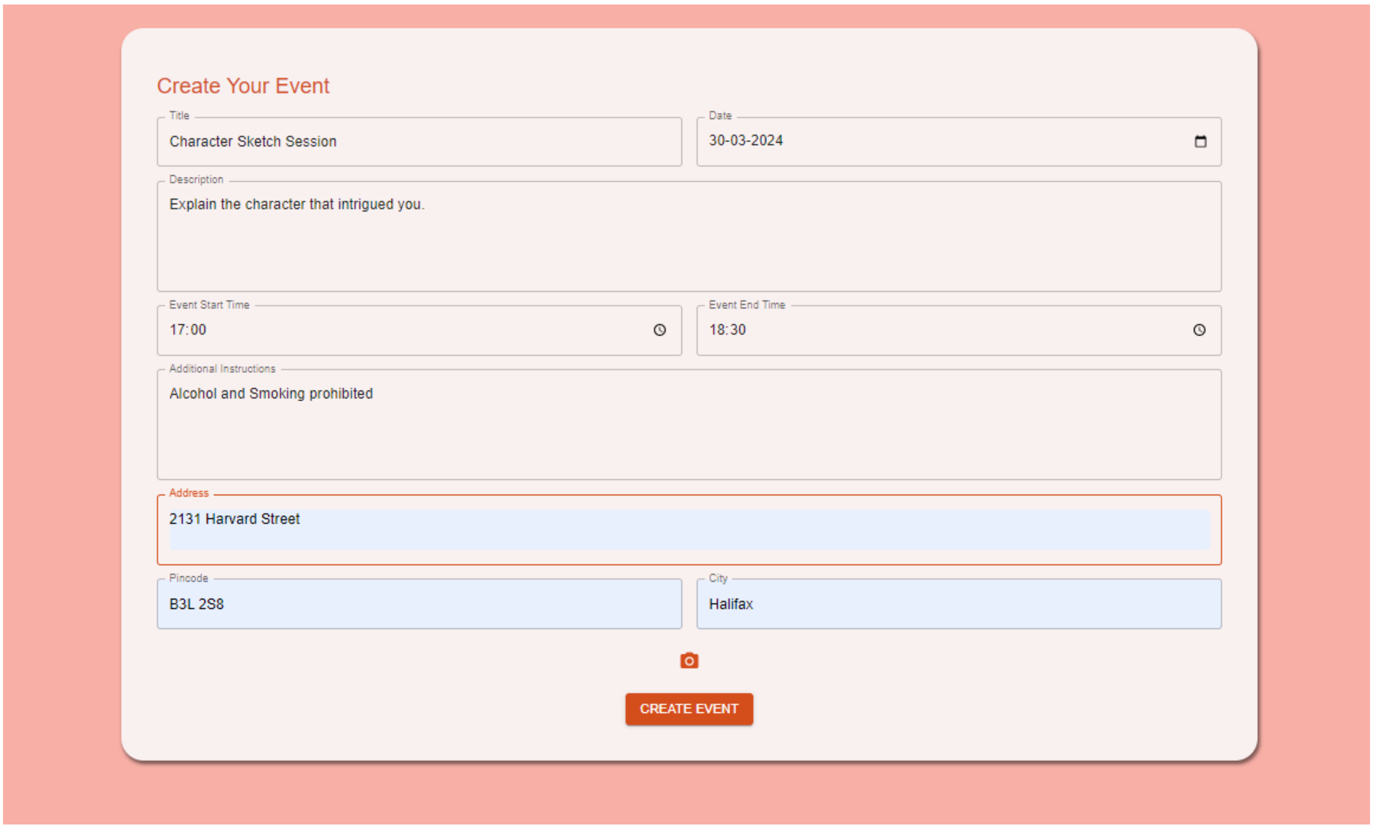
Hey
03:09 PM

Type Something
There?

10. Event Creation

Users will be redirected to the event creation page from the user dashboard upon clicking the "Create event" button. On this page, users can enter all the required details for the event, such as the Event title, description, instructions, etc. along with an optional docs/img/image.

After submitting the event, it will be stored in the database and recommended to other users with similar interests on their dashboards/home pages.


Create Your Event

Title: Character Sketch Session

Date: 30-03-2024

Description: Explain the character that intrigued you.

Event Start Time: 17:00

Event End Time: 18:30

Additional Instructions: Alcohol and Smoking prohibited

Address: 2131 Harvard Street

Pincode: B3L 2S8

City: Halifax

Dependencies and Installation

Frontend Dependencies

Prerequisites

Before you can install and run this React.js project, you must have the following installed on your system:

- **Node.js**: The runtime environment required to run JavaScript code outside of a browser. Node.js comes with npm (node package manager) which is used to manage project dependencies. Download and install Node.js from the official website.

- **npm (Node Package Manager)**: Comes bundled with Node.js. Used to install the project's dependencies.

Clone the Repository

First, clone the project repository from GitHub to your local machine using git command:

```
git clone <repository-url>
```

The Matchify React application utilizes a range of dependencies for its functionality. Here, we document these dependencies required to build, test, and deploy the application, along with the necessary commands to install and configure them.

Installation

To install these dependencies, navigate to your project directory in the terminal and run:

```
npm install
```

Start the development server:

```
npm start
```

Runs the app in the development mode. Open http://localhost:3000 to view it in your browser. The page will reload when you make changes. You may also see any lint errors in the console.

Run test

```
npm test
```

Launches the test runner in the interactive watch mode. See the section about running tests for more information.

Build app

```
npm run build
```

Builds the app for production to the build folder. It correctly bundles React in production mode and optimizes the build for the best performance. The build is minified and the filenames include the hashes. Your app is ready to be deployed! See the section about deployment for more information.

Eject from Create React App

```
npm run eject
```

Note: this is a one-way operation. Once you eject, you can't go back! If you aren't satisfied with the build tool and configuration choices, you can eject at any time. This command will remove the single build dependency from your project. Instead, it will copy all the configuration files and the transitive dependencies (webpack, Babel, ESLint, etc) right into your project so you have full control over them. All of the commands except eject will still work, but they will point to the copied scripts so you can tweak them.

Dependencies

- **Core Libraries**: `react` (^18.2.0), `react-dom` (^18.2.0)
- **Routing**: `react-router-dom` (^6.22.0)
- **State Management**: `@reduxjs/toolkit` (^2.1.0), `react-redux` (^9.1.0), `redux` (^5.0.1), `redux-persist` (^6.0.0), `redux-saga` (^1.3.0)
- **Material UI**: `@mui/material` (^5.15.9), `@mui/icons-material` (^5.15.9), `@mui/styled-engine-sc` (^6.0.0-alpha.16)
- **Emotion**: `@emotion/react` (^11.11.3), `@emotion/styled` (^11.11.0)
- **Bootstrap**: `bootstrap` (^5.3.2), `react-bootstrap` (^2.10.1)
- **WebSockets & Messaging**: `@stomp/stompjs` (^7.0.0), `sockjs-client` (^1.6.1), `stompjs` (^2.3.3)
- **HTTP Client**: `axios` (^1.6.7)
- **Testing Libraries**: `@testing-library/jest-dom` (^5.17.0), `@testing-library/react` (^13.4.0), `@testing-library/user-event` (^13.5.0)
- **Miscellaneous**: `react-hot-toast` (^2.4.1), `react-slick` (^0.30.2), `slick-carousel` (^1.8.1), `web-vitals` (^2.1.4)

Development Dependencies

- **Tooling**: `react-scripts` (^5.0.1)

Backend Dependencies

Prerequisites

Before setting up the Matchify backend, ensure you have the following prerequisites installed on your system:

- **Java JDK**: The Java Development Kit (JDK) is necessary to compile and run Java applications. Matchify requires JDK 17. You can download it from Oracle's website or adopt an OpenJDK distribution like AdoptOpenJDK.

- **Maven**: Apache Maven is a build automation tool used primarily for Java projects. Maven simplifies the build process like compiling code, packaging binaries, and managing dependencies. Download and install Maven from the official Apache Maven project website.

Clone the Repository

Start by cloning the Matchify backend repository to your local machine:

```
git clone <backend-repository-url>
```

Testing

To run the backend tests, execute the following command:

```
mvn test
```

This command runs all unit and integration tests in the project using Maven.

Configuration

The backend application can be configured via the application.properties or application.yml files located in the src/main/resources directory. Here you can specify your database connections, server port, and other Spring Boot settings.

API Documentation

After running the application you can find the API documentation using the below link. Below link should list all the APIs that are there on our backend Spring boot application. http://localhost:8080/swagger-ui/index.html

Backend Dependencies

The backend of the Matchify application is built using Spring Boot, leveraging Maven for dependency management. Below is an overview of the key dependencie, which are essential for building, testing, and running the backend service.

Key Dependencies

- **Spring Boot Starter Security**: Provides comprehensive security for Spring-based applications.
- **Spring Boot Starter Web**: Facilitates building web applications (including RESTful services) using Spring MVC.
- **Spring Boot Starter WebSocket**: Enables WebSocket development with Spring.
- **Spring Boot Starter Data JPA**: Allows easy implementation of JPA-based repositories.
- **MySQL Connector-J**: Connects the application to a MySQL database.
- **Spring Boot Starter Validation**: Supports validation functionality for Spring applications.
- **Lombok**: Reduces boilerplate code in Java classes.
- **ModelMapper**: Simplifies object mapping in Java to aid in entity and DTO mapping.
- **Spring Boot Starter Test**: Supports testing Spring Boot applications with libraries including JUnit, Hamcrest, and Mockito.
- **Spring Security Test**: Provides support for testing Spring Security applications.
- **JJWT**: Java JWT for JWT creation and verification.
- **Springdoc OpenAPI UI**: Facilitates the generation of API docs using the OpenAPI 3 specification.
- **Google Maps Services**: Enables the use of Google Maps APIs in the application.
- **AWS Java SDK**: Allows the application to interact with Amazon Web Services.

Building and Running

Build

Use Maven to build the project. This step compiles the Java code, runs any tests, and packages the compiled code into a JAR file:

```
mvn clean install
```

If you want to skip the test execution:

```
mvn clean install -DskipTests
```

Run

After successfully building the project, you can run your Spring Boot application using Maven:

```
mvn spring-boot:run
```

This command starts the Spring Boot application. By default, the application will be accessible on http://localhost:8080.

Build Instructions

Instructions to Build the Application from Scratch.

Frontend

1. Set up Node.js and npm

React.js requires Node.js and npm (Node Package Manager) to be installed on the system. These can be downloaded and installed from the official website: Node.js.

2. Create a new React app

- In your terminal or command prompt got to the directory where the project is to be created.
- Run the following command to create a new React app using Create React App: `npx create-react-app matchify` 'matchify' is the name of the app created.

3. Navigate to the project directory.

4. By default, Create React App generates a project structure with all the necessary files and folders. Key directories include:

- public: Contains the HTML template file (index.html) and other static assets.
- src: Contains the source code of your React application.
- index.js: Entry point of your application.
- App.js: Root component of your application.
- App.css: CSS file for styling the App component.
- index.css: Global CSS styles.
- node_modules: Contains project dependencies.
- package.json: Configuration file for npm, including dependencies and scripts.

5. Set-up the Redux Store

- Install Redux and Redux Persist packages in the React.js project by executing the following commands: `npm install redux react-redux redux-persist`
- Set up your Redux store in the application. Create a file, store.js, and define the Redux store configurations.

```
import { createStore, applyMiddleware } from "redux";
import { persistStore, persistReducer } from "redux-persist";
import storage from "redux-persist/lib/storage"; // defaults to localStorage for
web

import rootReducer from "./reducers"; // Assuming you have your reducers defined

const persistConfig = {
  key: "root",
  storage,
};

const persistedReducer = persistReducer(persistConfig, rootReducer);

export const store = createStore(
  persistedReducer,
  applyMiddleware(/* any middleware you want to use */)
);

export const persistor = persistStore(store);
```

The above code sets up a Redux store with Redux Persist, using localStorage as the default storage engine.

- Wrap the root component with Redux's component. This allows the Redux store to be accessible throughout the component tree:

```
ReactDOM.render(
  <Provider store={store}>
    <PersistGate loading={null} persistor={persistor}>
      <App />
    </PersistGate>
  </Provider>,
  document.getElementById("root")
);
```

Backend

1. Set up your development environment

Java and Maven have to be installed on the system. They can be downloaded and installed from their respective official websites.

2. Create a new Maven project

A new Maven project is created using the Maven command-line tool or an IDE like IntelliJ IDEA.

- Open the terminal or command prompt.
- Navigate to the directory where the project has to be created.
- Run the below Maven command to create the project.

```
mvn archetype:generate -DgroupId=com.example -DartifactId=demo -
DarchetypeArtifactId=maven-archetype-quickstart -DinteractiveMode=false
```

3. Add Spring Boot dependencies

Edit the pom.xml file in the project directory to include Spring Boot dependencies.

```
    <dependency>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter</artifactId>
        <version>2.6.4</version> <!-- Use the latest Spring Boot version -->
    </dependency>
```

4. Write your Spring Boot application code

Create a new Java class and add the below code to it.

```
    package com.example.demo;

    import org.springframework.boot.SpringApplication;
    import org.springframework.boot.autoconfigure.SpringBootApplication;
    import org.springframework.web.bind.annotation.GetMapping;
    import org.springframework.web.bind.annotation.RestController;

    @SpringBootApplication
    @RestController
    public class DemoApplication {

        public static void main(String[] args) {
            SpringApplication.run(DemoApplication.class, args);
        }

        //Other functions
    }
```

5. Build and run your application

Run the below command from the project directory to build the application:

`mvn clean package`

Once the build is successful, run the Spring Boot application using the below command:

`java -jar target/demo-1.0-SNAPSHOT.jar`

Deployment Instructions:

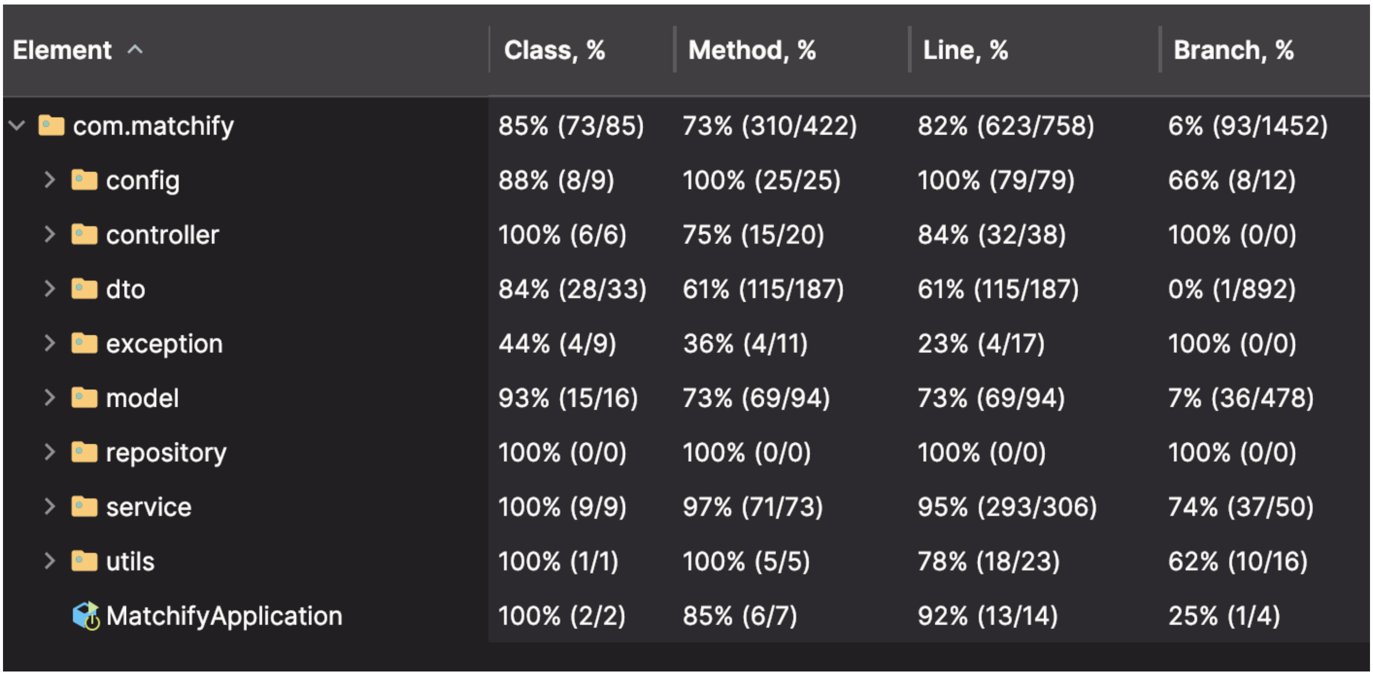
To deploy the application to production, follow these steps:

1. **Initiate Merge Request**:
    - Create a Merge Request targeting the `main` branch in the GitLab repository.

2. **Approval Process**:
    - Ensure the Merge Request is approved by relevant stakeholders.
3. **CI/CD Pipeline**:
    - Wait for the Continuous Integration/Continuous Deployment (CI/CD) pipeline triggered by the Merge Request to complete.
4. **Production Deployment**:
    - Once the pipeline finishes, the application will automatically be deployed to the production environment.

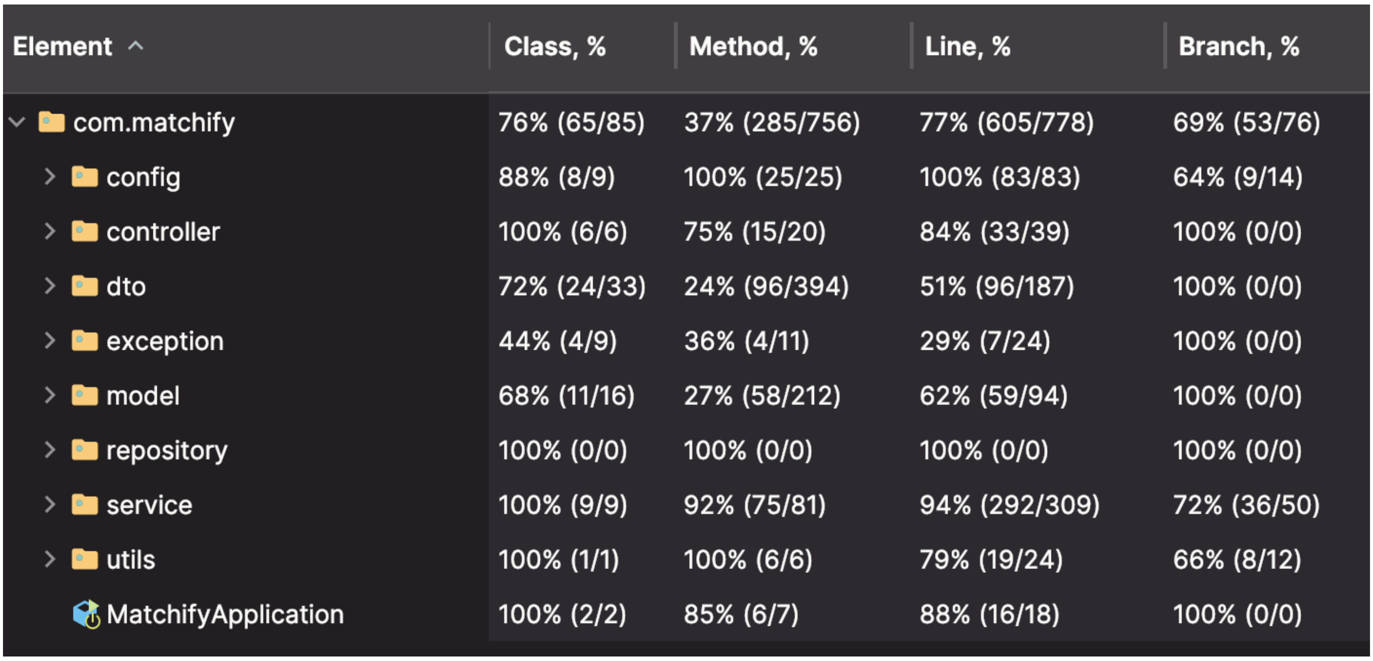
Test Coverage for Backend

IntelliJ IDEA: 82%



Element	Class, %	Method, %	Line, %	Branch, %
com.matchify	85% (73/85)	73% (310/422)	82% (623/758)	6% (93/1452)
config	88% (8/9)	100% (25/25)	100% (79/79)	66% (8/12)
controller	100% (6/6)	75% (15/20)	84% (32/38)	100% (0/0)
dto	84% (28/33)	61% (115/187)	61% (115/187)	0% (1/892)
exception	44% (4/9)	36% (4/11)	23% (4/17)	100% (0/0)
model	93% (15/16)	73% (69/94)	73% (69/94)	7% (36/478)
repository	100% (0/0)	100% (0/0)	100% (0/0)	100% (0/0)
service	100% (9/9)	97% (71/73)	95% (293/306)	74% (37/50)
utils	100% (1/1)	100% (5/5)	78% (18/23)	62% (10/16)
MatchifyApplication	100% (2/2)	85% (6/7)	92% (13/14)	25% (1/4)

JaCoCo: 77%



Element	Class, %	Method, %	Line, %	Branch, %
com.matchify	76% (65/85)	37% (285/756)	77% (605/778)	69% (53/76)
config	88% (8/9)	100% (25/25)	100% (83/83)	64% (9/14)
controller	100% (6/6)	75% (15/20)	84% (33/39)	100% (0/0)
dto	72% (24/33)	24% (96/394)	51% (96/187)	100% (0/0)
exception	44% (4/9)	36% (4/11)	29% (7/24)	100% (0/0)
model	68% (11/16)	27% (58/212)	62% (59/94)	100% (0/0)
repository	100% (0/0)	100% (0/0)	100% (0/0)	100% (0/0)
service	100% (9/9)	92% (75/81)	94% (292/309)	72% (36/50)
utils	100% (1/1)	100% (6/6)	79% (19/24)	66% (8/12)
MatchifyApplication	100% (2/2)	85% (6/7)	88% (16/18)	100% (0/0)

Sure, here's the README with each stage as a top-level section:

CI/CD Pipeline for Matchify Backend

This repository contains the CI/CD configuration for the Matchify backend application. The pipeline is configured to build, test, analyze code quality, publish Docker images, and deploy the application to a production environment.

Pipeline Variables

The pipeline uses the following environment variables:

- `DOCKER_HUB_USER`: Docker Hub username.
- `DOCKER_HUB_PWD`: Docker Hub password.
- `SSH_PRIVATE_KEY`: Private SSH key for accessing the deployment server.
- `SERVER_USER`: Username for accessing the deployment server.
- `SERVER_IP`: IP address of the deployment server.
- `APP_NAME`: Name of the application Docker image.
- `APP_PORT`: Port on which the application should run.
- `AWS_ACCESS_KEY_ID`: AWS access key ID for accessing AWS services.
- `AWS_SECRET_ACCESS_KEY`: AWS secret access key for accessing AWS services.
- `AWS_REGION`: AWS region for accessing AWS services.
- `GEOCODING_API_KEY`: API key for geocoding services.

Build

In this stage, the Maven project is built using the `maven:latest` Docker image. The application is packaged as a JAR file with the `test` profile activated.

Test

The test stage executes Maven tests with the `test` profile activated.

Quality

In this stage, code quality is analyzed using DesigniteJava. The tool identifies code smells and produces a report in the `smells/` directory.

Publish

The Docker image is built and pushed to Docker Hub using the `docker:latest` Docker image. The image is tagged with the short commit SHA and pushed to the repository associated with the Docker Hub user.

Deploy

The application is deployed to a production environment using SSH. The Docker image is pulled, and a container is started on the target server. Environment variables required for the application are passed during container startup.

Pipeline Triggers

The pipeline is triggered automatically on commits to the `main` branch.

CI/CD Pipeline for Matchify Frontend

This repository contains the CI/CD configuration for the Matchify frontend application. The pipeline is designed to build, test, analyze code quality, publish Docker images, and deploy the application to a production environment.

Pipeline Variables

The following environment variables are utilized in the pipeline:

- `DOCKER_HUB_USER`: Docker Hub username.
- `DOCKER_HUB_PWD`: Docker Hub password.
- `SSH_PRIVATE_KEY`: Private SSH key for accessing the deployment server.
- `SERVER_USER`: Username for accessing the deployment server.
- `SERVER_IP`: IP address of the deployment server.
- `REACT_APP_API_URL`: API URL for the React application.
- `APP_NAME`: Name of the application Docker image.
- `APP_PORT`: Port on which the application should run.
- `APP_DIR`: Directory path of the frontend application.
- `APP_CONTAINER_NAME`: Name of the Docker container for the frontend application.

Pipeline Stages

Build

In this stage, the Node.js project is built using the `node:latest` Docker image. Dependencies are installed using `npm ci`.

Test

The test stage executes the test suite for the frontend application.

Quality

This stage triggers a code quality analysis using an external template, specified in `Code-Quality.gitlab-ci.yml`. It only runs on the `dev` and `main` branches.

Publish

The Docker image is built and pushed to Docker Hub using the `docker:latest` Docker image. The image is tagged with the short commit SHA and pushed to the repository associated with the Docker Hub user.

Deploy

The application is deployed to a production environment using SSH. The Docker image is pulled, and a container is started on the target server. Environment variables required for the application are passed during container startup.

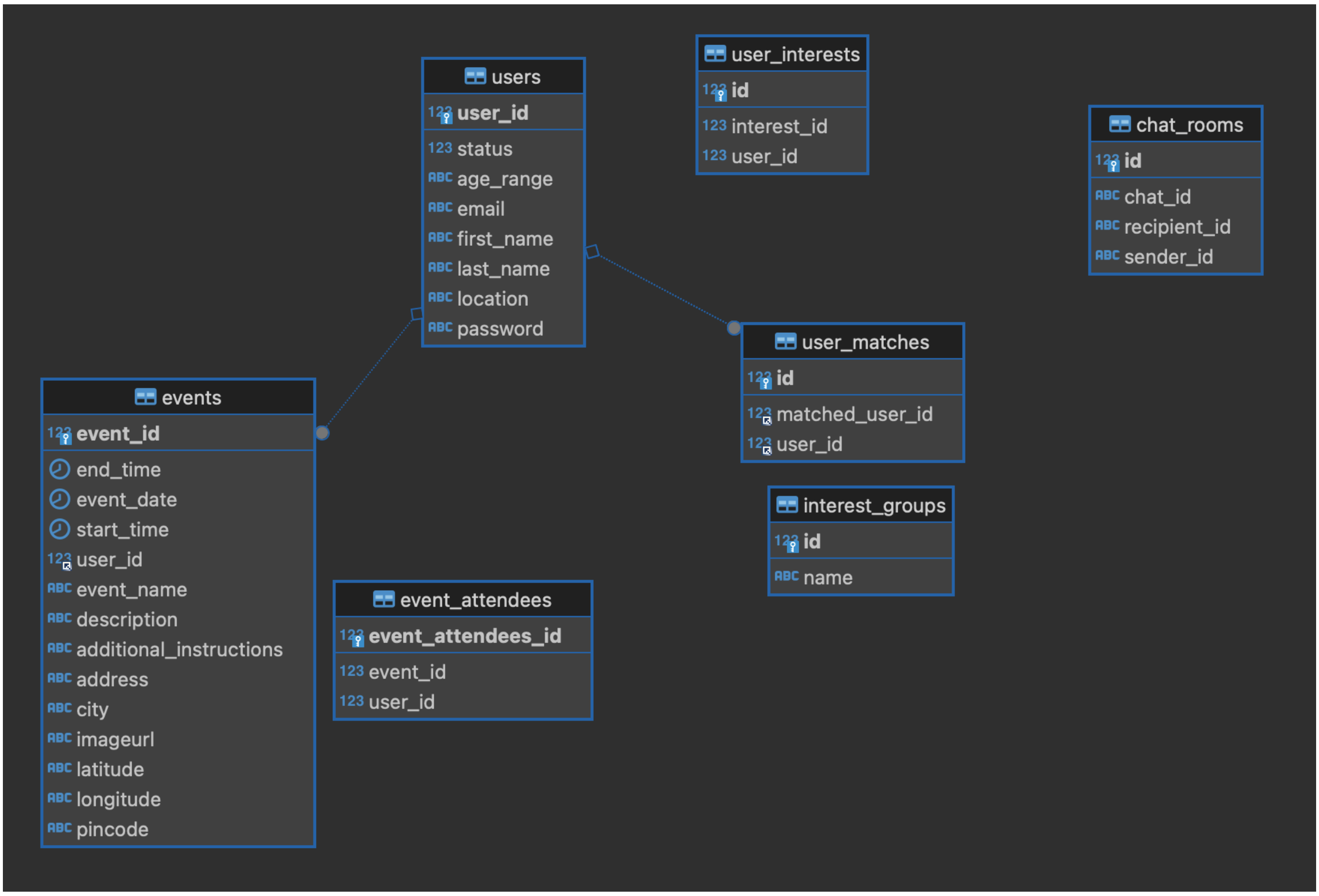
Pipeline Triggers

The pipeline is triggered automatically on commits to the `main` branch.

Database Design

This document presents the initial database design for the Matchify application, encompassing various tables and their respective columns.

Database ERD



Backend APIs

Path	Method	Description	Request Structure	Response Structure
/api/v1/interest/fill-my-interest	POST	Fill user interests	`{"groups": [1, 2], "categories": [1, 2, 3]}`	`json<br>{"msg": "Interests filled successfully"}`
/api/v1/event/matched-events	POST	Get matched events	`{"matchedUserIds": [1, 2, 3]}`	See GetMatchedEventsResponse
/api/v1/event/leave-event	POST	Leave an event	`{"eventAttendeesId": 123}`	`json<br>{"message": "Left event successfully"}`
/api/v1/event/join-event	POST	Join an event	`{"eventAttendeesId": 123}`	`json<br>{"message": "Joined event successfully"}`
/api/v1/event/event-attendees-list	POST	Get attendees of an event	`json <br/> {"eventId": 123}`	See EventAttendeesResponse
/api/v1/event/create-event	POST	Create an event	See CreateEventRequest	See CreateEventResponse
/api/v1/auth/register	POST	Register a new user	See User	See SignUpResponse

Path	Method	Description	Request Structure	Response Structure
/api/v1/auth/login	POST	Login and get authentication token	See LoginRequest	See AuthResponse
/api/v1/match/findMatches	GET	Find matches for a user	N/A	See FindMatchesResponse
/api/v1/interest	GET	Fetch all interests	N/A	See FetchInterestResponse
/api/v1/event/my-events	GET	Get events created by user	N/A	See GetMyEventsResponse

Now, for the response structures, I'll add anchor links for each response structure to provide a convenient reference. Let's define those response structures:

GetMatchedEventsResponse

```json
{
  "eventId": 123,
  "createdBy": {
    "userId": 456,
    "firstName": "John",
    "lastName": "Doe",
    "email": "john@example.com",
    "location": "City",
    "ageRange": "18-25"
  },
  "eventName": "Event Name",
  "description": "Event Description",
  "eventDate": "2024-04-01",
  "startTime": "10:00:00",
  "endTime": "12:00:00",
  "additionalInstructions": "Additional Instructions",
  "address": "Event Address",
  "pincode": "123456",
  "city": "Event City",
  "docs/img/imageURL": "https://example.com/event_docs/img/image.jpg",
  "latitude": "123.456",
  "longitude": "456.789"
}
```

EventAttendeesResponse

```json
{
  "userId": 123,
  "firstName": "Jane",
  "lastName": "Doe"
}
```

CreateEventRequest

```
{
  "eventName": "Event Name",
  "description": "Event Description",
  "eventDate": "2024-04-01",
  "startTime": { "hour": 10, "minute": 0, "second": 0, "nano": 0 },
  "endTime": { "hour": 12, "minute": 0, "second": 0, "nano": 0 },
  "additionalInstructions": "Additional Instructions",
  "address": "Event Address",
  "pincode": "123456",
  "city": "Event City"
}
```

CreateEventResponse

```
{
  "eventId": 123,
  "message": "Event created successfully"
}
```

User

```
{
  "userId": 123,
  "firstName": "John",
  "lastName": "Doe",
  "email": "john@example.com",
  "password": "hashed_password",
  "location": "City",
  "ageRange": "18-25",
  "status": "ONLINE"
}
```

SignUpResponse

```
{
  "token": "JWT_TOKEN",
  "message": "User registered successfully"
}
```

LoginRequest

```
{
  "email": "john@example.com",
  "password": "password"
}
```

AuthResponse

```json
{
  "jwt": "JWT_TOKEN",
  "message": "Authentication successful"
}
```

FindMatchesResponse

```json
{
  "matchedusers": [
    {
      "userId": 123,
      "name": "Jane",
      "location": "City",
      "ageRange": "18-25",
      "similarityScore": 90
    },
    {
      "userId": 456,
      "name": "John",
      "location": "City",
      "ageRange": "18-25",
      "similarityScore": 85
    }
  ]
}
```

FetchInterestResponse

```json
{
  "groupId": 1,
  "groupName": "Group Name",
  "categories": [
    { "id": 1, "name": "Category 1" },
    { "id": 2, "name": "Category 2" }
  ]
}
```

GetMyEventsResponse

```json
{
  "eventId": 123,
  "createdBy": {
    "userId": 456,
    "firstName": "John",
    "lastName": "Doe",
    "email": "john@example.com",
    "location": "City",
    "ageRange": "18-25"
  },
  "eventName": "Event Name",
  "description": "Event Description",
  "eventDate": "2024-04-01",
  "startTime": "10:00:00",
  "endTime": "12:00:00",
  "additionalInstructions": "Additional Instructions",
  "address": "Event Address",
  "pincode": "123456",
  "city": "Event City",
  "docs/img/imageURL": "https://example.com/event_docs/img/image.jpg",
  "latitude": "123.456",
  "longitude": "456.789"
}
```