Study Session Connect

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Rensseaer **P**olytechnic **I**nstitute
Rensseaer **C**enter for **O**pen **S**ource

Where Learning Meets Socializing, Because Success is Better Shared!

Project Overview

Introduction

In today's post pandemic society where people have a tendency to work remotely, RPI has a significant number of students who remain secluded in their rooms. We want to provide students with the ability to meet other students in their classes to there is collaboration amongst the community, as well as to promote social engagement.

Objectives

The primary objectives of **Study Session Connect** are rooted in promoting collaboration and enhancing academic success among students. Our application has the following main objectives:

❏ **Collaborative Learning:** We wish to provide a user-friendly platform that enables students to easily find and connect with peers nearby.
❏ **Knowledge Sharing Promotion:** We hope the creation of study sessions will students to share their insights, resources, and strategies with each other.
❏ **Improved Mental Health:** The act of engaging in group studying will hopefully curb the isolation and stress levels and help to promote mental well-being.

Audience

Study Session Connect is designed to cater to the following audiences:

❏ **Students**: The primary users of the Study Session Connect web application are students of all academic levels, from high school to university. This platform is tailored to address the the specific needs of students seeking collaborative study opportunities.
❏ **Educators and Tutors**: Instructors and tutors can recommend Study Session Connect to their students as a tool to encourage group study and facilitate peer-to-peer learning.
❏ **Educational Institutions**: Colleges, universities, and other institutions can use Study Session Connect as a platform for their students to connect and collaborate.

Intuitive User Interface

Study Session Connect features a streamlined and intuitive interface, designed for ease of use. Its straightforward layout ensures that students can navigate the platform effortlessly, making the process of finding or creating study sessions as simple and efficient as possible.
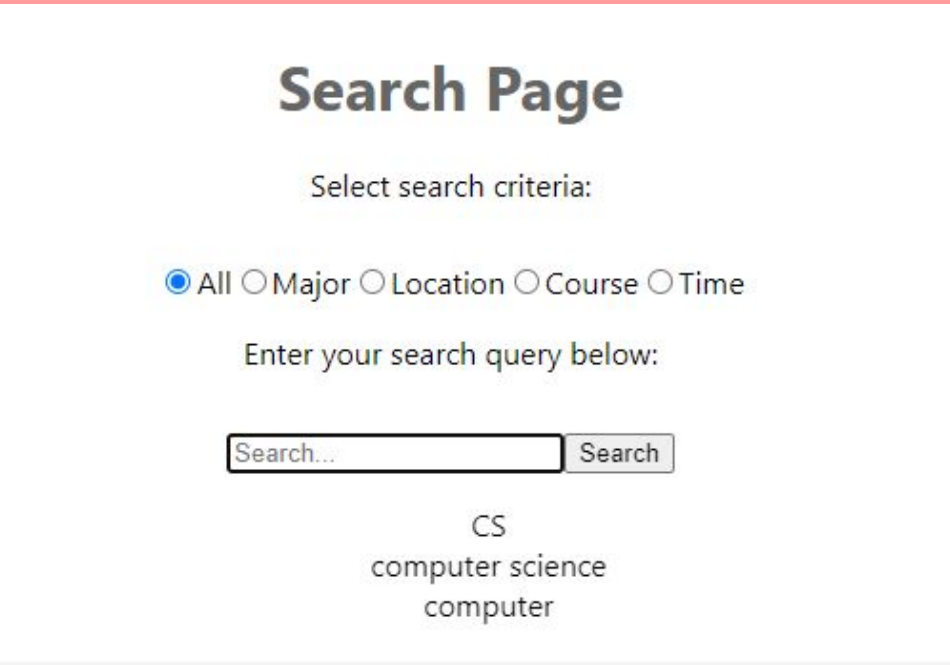

Figure 1: Example of our User Interface

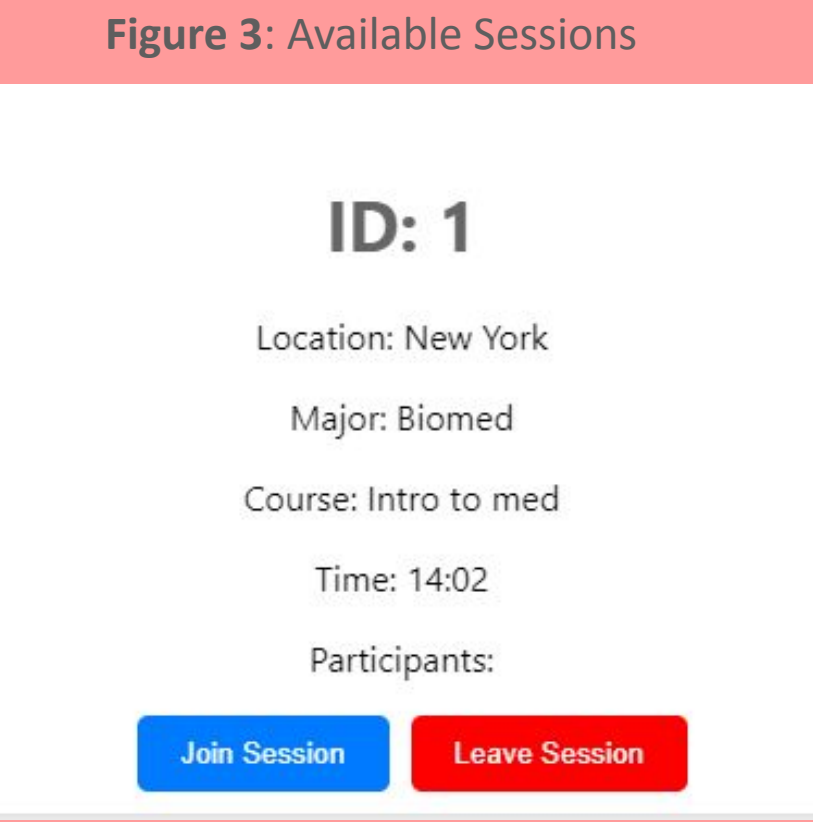**Figure 2**: Search Component

Figure 3: Available Sessions

Creating Study Sessions

Study Session Connect empowers students to take charge of their learning by providing a simple process for setting up new study sessions. Just a few clicks are all it takes to organize a session, set a date, time, and location, and invite others to join.
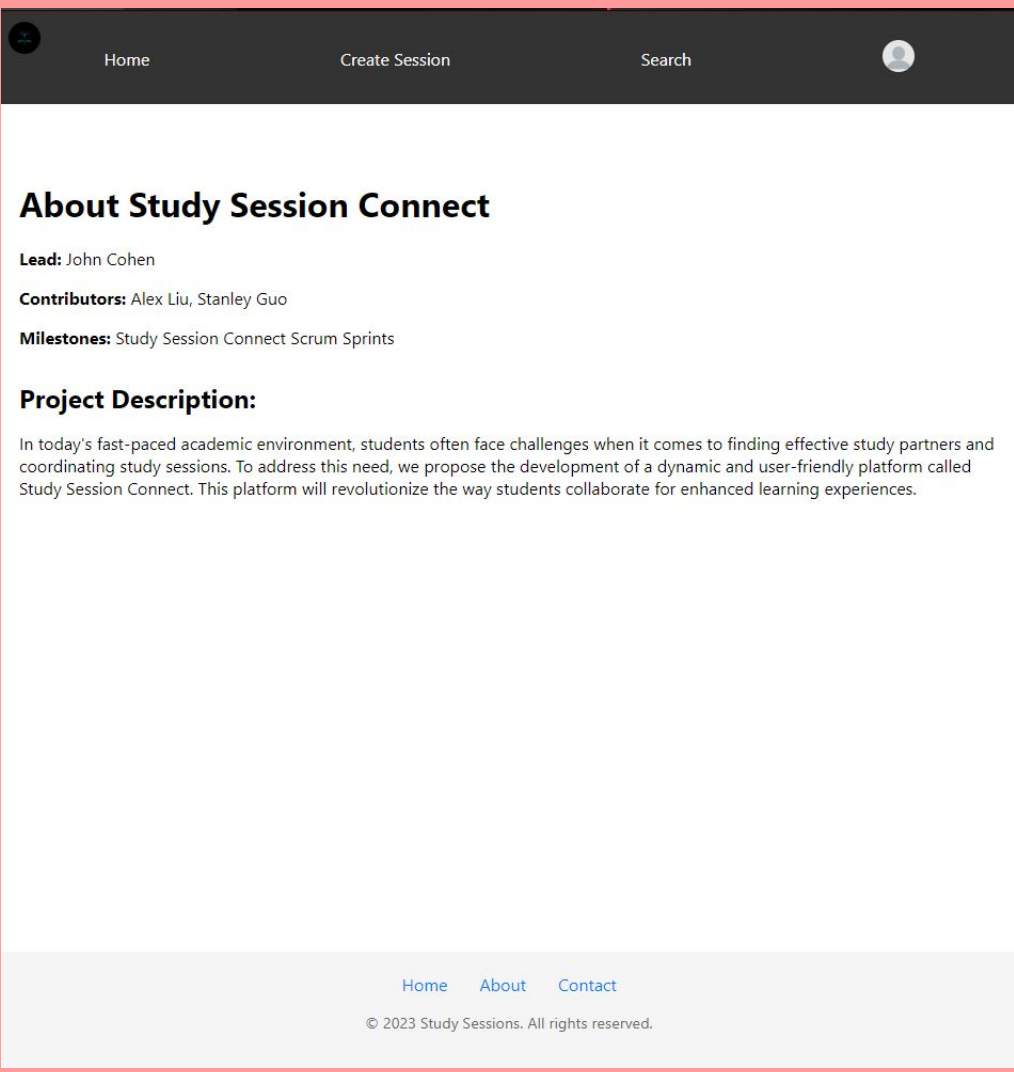
Search and Filter

Our advanced search and filter tools allow students to find the perfect study session with ease. Whether searching by course, location, or study topic, our platform provides precise and quick results, ensuring that every student can connect with the right study group.
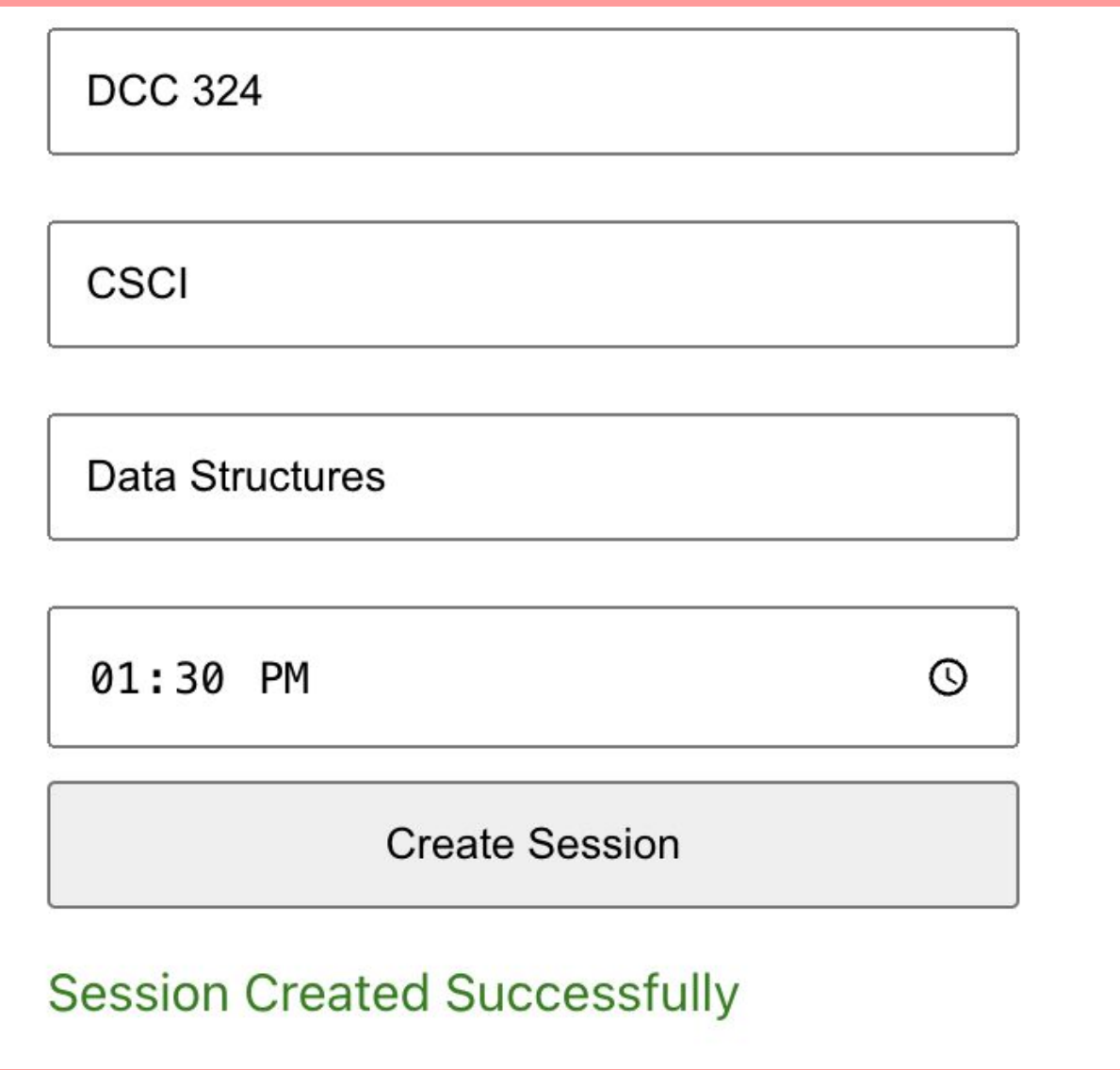

Figure 4: Create Session Component

Technical Details and Project Development

Technology Stack

Study Session Connect utilizes a modern stack to deliver a seamless and responsive user experience. The key components of the technology stack include:

❏ **Frontend**: *ReactJS* is utilized for its dynamic and interactive UI.
❏ **Backend**: *ExpressJS* pairs seamlessly with the *NodeJS* and *ReactJS* frameworks.
❏ **Database**: *PostgreSQL* offers support for complex queries and data integrity.

Database Schema

Study Session Connect uses a well-structured and relational database to efficiently manage and organize the information. The schema comprises of the following tables:

❏ **Users**(username, password)
❏ **Sessions**(id, location, major, course, time, participants)
❏ **Attendees**(username: Character varying(256), session_id)
❏ **Profiles**(username, fname, lname, major, gradYear)

Development Process

Study Session Connect follows an Agile development methodology organized into iterative sprints. The development process is outlined as follows:

❏ **Sprint 1**: Foundation and Basic Functionalities
Duration: 2 weeks
❏ **Sprint 2**: Enhanced Search and Session Display.
Duration: 2 weeks
❏ **Sprint 3**: Session Creation and User Interaction
Duration: 2 weeks
❏ **Sprint 4**: UI Refinement, Testing, and Deployment
Duration: 2 weeks
❏ **Sprint 5**: Finalization and Documentation
Duration: 1 week