

RamBluff: Online Poker

Group 9

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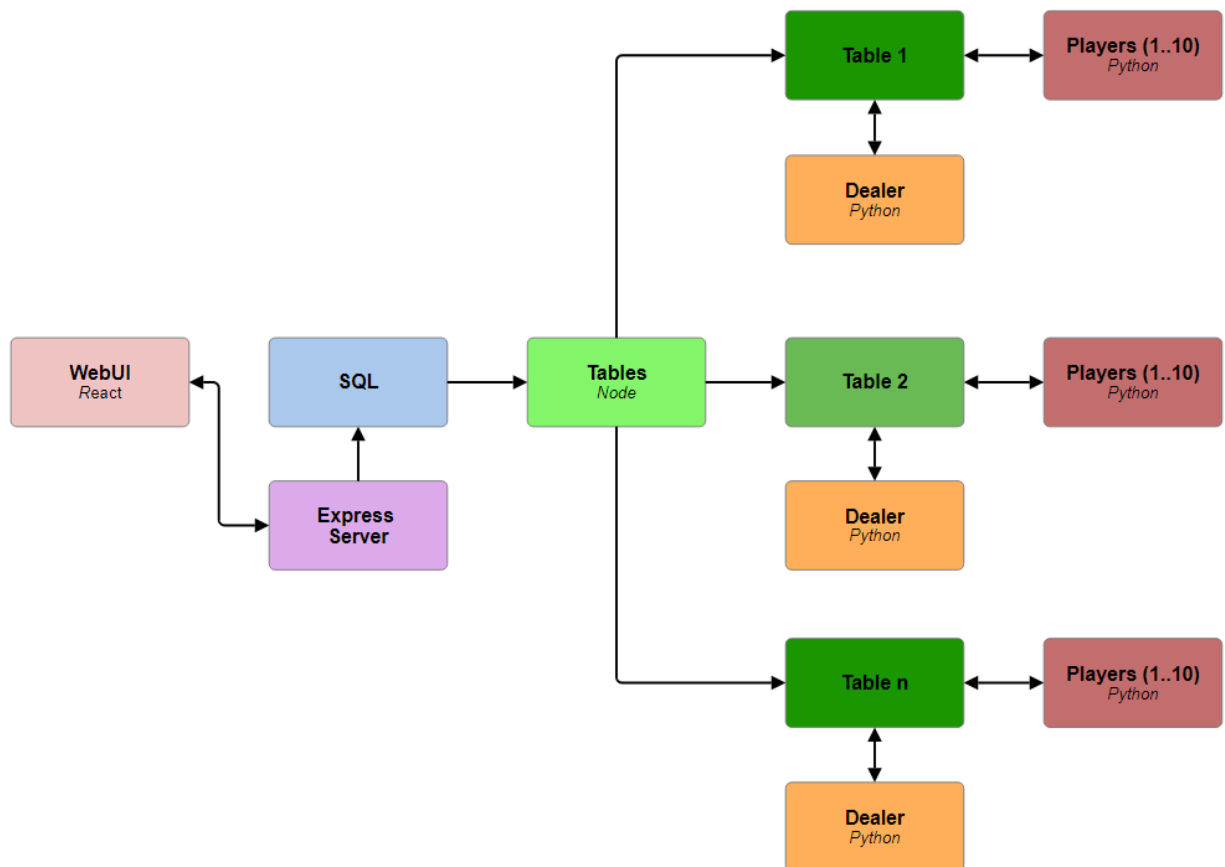
Chapter 1: Vision

Introduction

RamBluff is an online poker web application that delivers a seamless and immersive gaming experience to users. Our platform will utilize cutting-edge technologies to create a dynamic environment where players can engage in poker games with ease and convenience. The games played within our application will contain a user-friendly interface while securely managing player and gamestate data, and comply with the Texas Hold'em ruleset.

RamBluff: Online Poker

Figure 1



Chapter 2: Technical Proposal

2.0 Architecture Overview

Our proposed architecture consists of three main components: the frontend UI developed with React, the backend server powered by Node.js, and the database management system using SQL

2.1 Frontend Development (React)

We will adopt a component-based architecture in React to facilitate code reuse, improve maintainability, and enhance development efficiency. With the utilization of CSS frameworks like Bootstrap, we will ensure that the UI is responsive and optimized to provide a consistent user experience. Along with that, we will be employing Redux for state management, data flow, and the synchronization between different components of the application. Our users will be presented with a log-in screen, that allows them to sign in via Google, followed by a choice to join or create a game. When creating a game they will have the ability to name the table and provide a password.

2.2 Backend Development (Node.js/Python)

Our team will be designing a RESTful API to handle client-server communication, allowing for seamless interaction between the frontend and backend components. In order to enable real-time communication between players and the server, we will be using Socket.IO; this will allow live game updates and possible chat functionalities. We plan to use middleware libraries, such as Express, to define our routes for the necessary HTTP methods (GET,POST,PUT,DELETE,etc.) paired with the 'npm-python-bridge' library in order to communicate with our 'Dealer' and 'Player' classes.

The functionality of the poker game will be powered by the 'Table', 'Dealer', and 'Player' classes. Where 'Table' will be written in Node in order to make use of an open-source API, made by "goldfire", that will handle player hand rankings. Along with that, 'Table' will manage the pot, the rotation of the blinds, and current players. Adversely, the 'Dealer' and 'Player' classes will be written in Python. 'Dealer' will handle the shuffling and dealing of cards (Both player and community cards), while 'Player' is utilized for player actions and states.

2.3 Database Management (MySQL)

We will design a relational database schema using MySQL to store game states and player profiles(along with any other relevant data). After a player completes a successful sign-in, they will be given a UserID. This will allow us to maintain which users are in which games. Lastly, to ensure efficient data retrieval and storage, we will be using proper normalization and indexing techniques.

2.4 Conclusion

By implementing these technical strategies, we aim to develop a robust and scalable online poker platform that delivers a superior gaming experience to our users while maintaining the highest standards of security, reliability, and entertainment.

Sean Berlin

SeanBerlin724@gmail.com | Graduating Spring 2024 | [linkedin.com/in/sean-berlin-571778201/](https://www.linkedin.com/in/sean-berlin-571778201/)

EDUCATION

West Chester University

Graduating Spring 2024

B.S Computer Science- Certificate in Computer Security (NCAE-C)

GPA 3.5

- **Concentrations:** Computer Science with Cybersecurity Specialization
- **Related Coursework:** Computer Security & Ethics, Software Security, Modern Malware Analysis, Data Communications and Networking, Intro to Cloud Computing, Software Engineering, Data Structures & Algorithms, Database Management Systems

SKILLS

Operating Systems: Windows, Linux

Languages: Java, Python, C#, SQL, OCaml, x86 Assembly, Bash Shell Scripting

Microsoft: Access, Excel, Word, PowerPoint

General IT Security: Basic knowledge of cybersecurity principles, user account management, and access control

Communication: Excellent verbal and written communication skills with ability to convey technical information

COLLEGE INVOLVEMENT

Clubs and Activities from CS Department

- Multiple-time participant in the West Chester University Programming Contest (WCPC) and Computer Science Robotics Camp, showcasing problem-solving skills and algorithm development expertise
- Member of the department's Cyber Security Club, actively participating in hackathons and staying informed about cyber security events

Fraternity

- Member and Community Service Chair for Alpha Chi Rho, organizing and leading community service initiatives to give back within the fraternity and the broader community

JOB EXPERIENCE

Lee's Hoagie House

June 2019 - Current

Assistant Manager with Third-Party Ordering Oversight

- Supervised and trained a team of up to 10 employees, ensuring a high level of customer service and quality food preparation.
- Maintained a clean and organized shop environment, ensuring compliance with health and safety regulations.
- Managed the implementation and operation of third-party delivery services, ensuring seamless integration with the business's ordering system and procedures.

Camp Invention (STEM) Leadership Intern

Instructor

- Led and supervised groups of up to 30 elementary school students during STEM-focused summer camps, ensuring safety and engagement at all times.
- Developed and facilitated hands-on activities and experiments that fostered creativity, problem-solving, and critical thinking skills among campers.
- Mentored and trained junior counselors to promote leadership development and effective teamwork.

Kirtan Chavda

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EDUCATION

West Chester University

Bachelors in Computer Science

West Chester, PA

Aug. 2021 – May 2025

EXPERIENCE

Manager

Best Eye Vision

July 2021 – Present

Malvern, PA

- Supervised the business and the departments to help function the clinic
- Utilized skills for financial decisions, marketing and growth of the doctor
- Worked with several companies to give services

VOLUNTEER

BAPS

Jan 2018 – Present

- Teach younger kids the way of living and serving the community
- Organizing several events to generate donations and run the non-profit organization
- Collaborating with other volunteers to construct ways of growth
- Giving speeches at different locations to motivate the volunteers

Akshardham

March 2023 – Aug 2023

- Served in the construction of a temple in New Jersey
- Helped the department of fabrication where I got experience of working in a team
- Developed and completed several projects

TECHNICAL SKILLS

Languages: Java, C/C++

Concepts: Ethics, Security, Data Structures and Algorithms

Management

Public Speaking

Jared Colletti

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EDUCATION

West Chester University | West Chester, PA

B.S. in Computer Science | GPA: 3.3/4.0

May 2024

Relevant Courses: Operating Systems, Data Structures, Foundations of Programming, Algorithms & Analysis

Certificate: University of Pennsylvania's LPS Coding Bootcamp

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, C, Haskell

Operating Systems: Windows XP/Vista/7/8/10/11, Linux

PROJECTS

Online Poker Game | University Project

May 2024

- Collaborated with a team of 3 and developed a fully functional web application with a dynamic **Javascript-based** front-end, a RESTful server-side API, a relational database that stores back-end application state, and an ORM layer to access data in the database

Unix Shell | University Project

Dec 2023

- C implementation of terminal-based Unix Shell
- Features supported : redirection, parallel processing, built-in commands

PROFESSIONAL EXPERIENCE

Programming Instructor | CodeWizardsHQ | Remote

Nov 2021 - May 2022

- Create lessons plans
- Teach curriculum to 6 - 14 student classes
- Grade assignments, projects, submit feedback, and attend virtual training sessions

Zachary Leopold

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CAREER OBJECTIVE

As a dedicated soon-to-be graduate with a Bachelor's degree in Computer Science, I am eager to leverage my academic knowledge and skills in software development/engineering to contribute effectively to a dynamic team. Passionate about solving complex problems and staying up to date with emerging technologies. Seeking an entry-level position where I can grow professionally, learn from experienced colleagues, and make meaningful contributions to innovative projects.

EDUCATION

West Chester University of Pennsylvania | West Chester, PA

B.S. in Computer Science | GPA: 3.76

Exp. Grad. Spring 2024

Member of Upsilon Pi Epsilon, International Computer Science Honor Society

- **Relevant Courses:** Cloud Computing, Data Structures & Algorithms, Software Engineering, Computer Security
- **Dean's List:** Fall 2022, Spring 2023, Fall 2023
- **Clubs:** Competitive Programming, Computer Science, Cyber Security, WCU Esports

Millersville University of Pennsylvania | Millersville, PA

B.S. in Computer Science | Major GPA: 3.9

Aug 2019 - May 2021

Invited to Honor Society sophomore year

TECHNICAL SKILLS

Programming Languages: Java (Advanced), Python (Intermediate), C (Intermediate), GO (Beginner), JavaScript (Beginner)

Operating Systems: Windows, Linux

Software/Tools: Visual Studio, Eclipse, Git/Github, MongoDB

PROJECTS

GalaxyMentor | Independent Study Project

September 2023 - Present

- Web application, created by Dr. Si Chen, that utilizes artificial intelligence to teach students across varying topics with a focus on Computer Science
- Studied and assisted with the implementation of features such as storing and accessing information within a database
- Use of GO, JavaScript, CSS, MongoDB

EXPERIENCE

Semi-Pro Counter-Strike Player

May 2016 - Present

- Facilitated structured practice, analyzed gameplay and developed strategies with team members within team-set deadlines in order to perform to our highest abilities
- Collaborated with the team to consistently push the current ideologies and playstyles for upwards of seven (7) different maps
- Promoted and enforced the improvement of mechanical, conceptual, and communication skills

Hardscaper | EPLandscaping | Garnet Valley, PA

(Summers) **June 2016 - August 2019**

- Completed projects that complied with given specifications, standards, and contractual obligations
- Consulted with customers to explain the methodology and decisions made throughout the project to ensure satisfaction