Learning Resource Center Tutor Finder

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Problem

The Learning Resource Center (LRC) previously relied on Google spreadsheets, an intricate system that posed challenges in the tutor-finding process. This method entailed a laborious two-step approach, burdening students and staff alike. Firstly, students had to meticulously locate a tutor's name within a specific course listing, a time-consuming endeavor in itself. Following this, they then had to cross-reference this information with another spreadsheet containing the tutors' schedules. This intricate process demanded a significant investment of time and effort, proving inconvenient for students seeking guidance and for the diligent staff managing a roster of over 55 tutors.

Solution

Tutor Finder presents a pivotal solution in modernizing the traditional approach to finding tutors. Prior to its implementation, the process heavily relied on dispersed spreadsheets. This centralized platform now offers a streamlined experience through its intuitive interface. Users transition seamlessly from managing multiple spreadsheets to accessing a singular, comprehensive hub. Tutor Finder's core functionality lies in organizing information effectively, providing a holistic overview that includes tutor availability and their expertise across various courses. Its emphasis on a straightforward design ensures a user-friendly experience, benefiting students, student assistants, and administrative staff equally. By consolidating information and enhancing accessibility, Tutor Finder drastically simplifies the process of finding an appropriate tutor, ensuring effortless and efficient utilization for all involved parties.

Methodology (Agile Approach)

1. Sprint Planning
   - **Identification of Requirements:** LRC staff, and administrators to understand pain points and prioritize features for the new system.
   - **Product Backlog Creation:** Compiled a backlog of user stories and features necessary for Tutor Finder's initial development.
2. Sprint Execution
   - **Sprint Development:** Broke down the development process into iterations focusing on specific features and functionalities.
3. Iterative Development and Testing
   - **Continuous Integration:** Implemented features iteratively, allowing for continuous testing and integration of new functionalities into the platform.
   - **User Feedback Loops:** Incorporated feedback loops to gather user input and make necessary adjustments during development to align with user needs.
4. Sprint Review
   - **Sprint Reviews:** Held regular review sessions with LRC administrators to demonstrate completed features and gather feedback for further refinement.
5. Incremental Delivery and Deployment
   - **Incremental Releases:** Delivered functional increments of Tutor Finder at the end of each sprint, allowing for early user testing and feedback.
   - **Deployment Strategy:** Strategically deployed functional increments, ensuring minimal disruption and providing training sessions for users and staff.
6. Continuous Improvement and Adaptation
   - **Adaptive Development:** Embraced changes and adaptations based on evolving requirements and user feedback throughout the development process.
   - **Refinement and Optimization:** Continuously refined the system based on user input, ensuring the platform evolved to meet the needs of its users effectively.
7. Monitoring and Maintenance
   - **Performance Monitoring:** Regularly monitored the system's performance post-deployment, addressing any issues promptly to ensure optimal functionality.
   - **Ongoing Support:** Provided ongoing support and maintenance to address any user queries or technical glitches post-deployment.
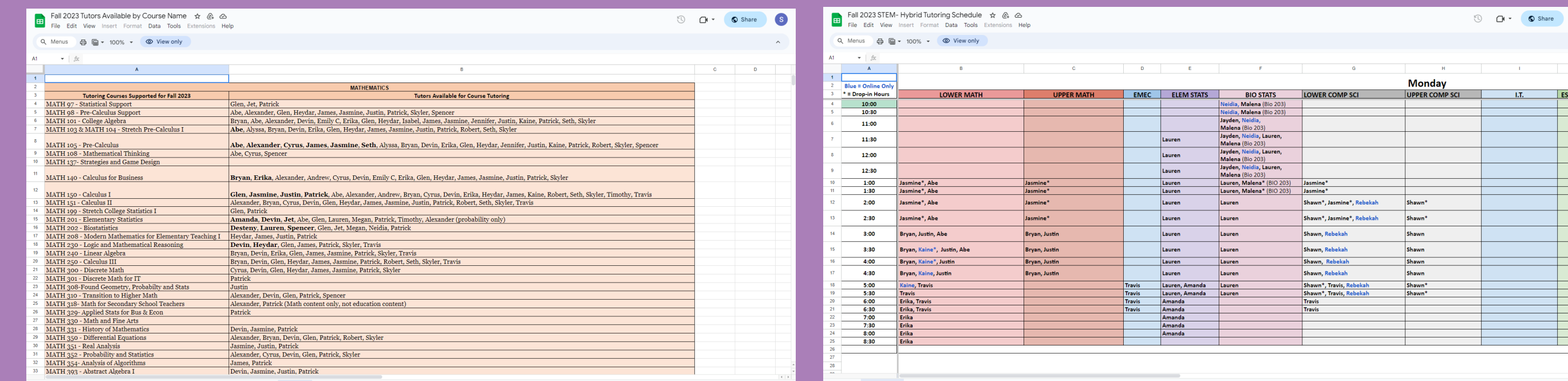
Links

Project
https://shawn.cikeys.com/lrc/

Blog
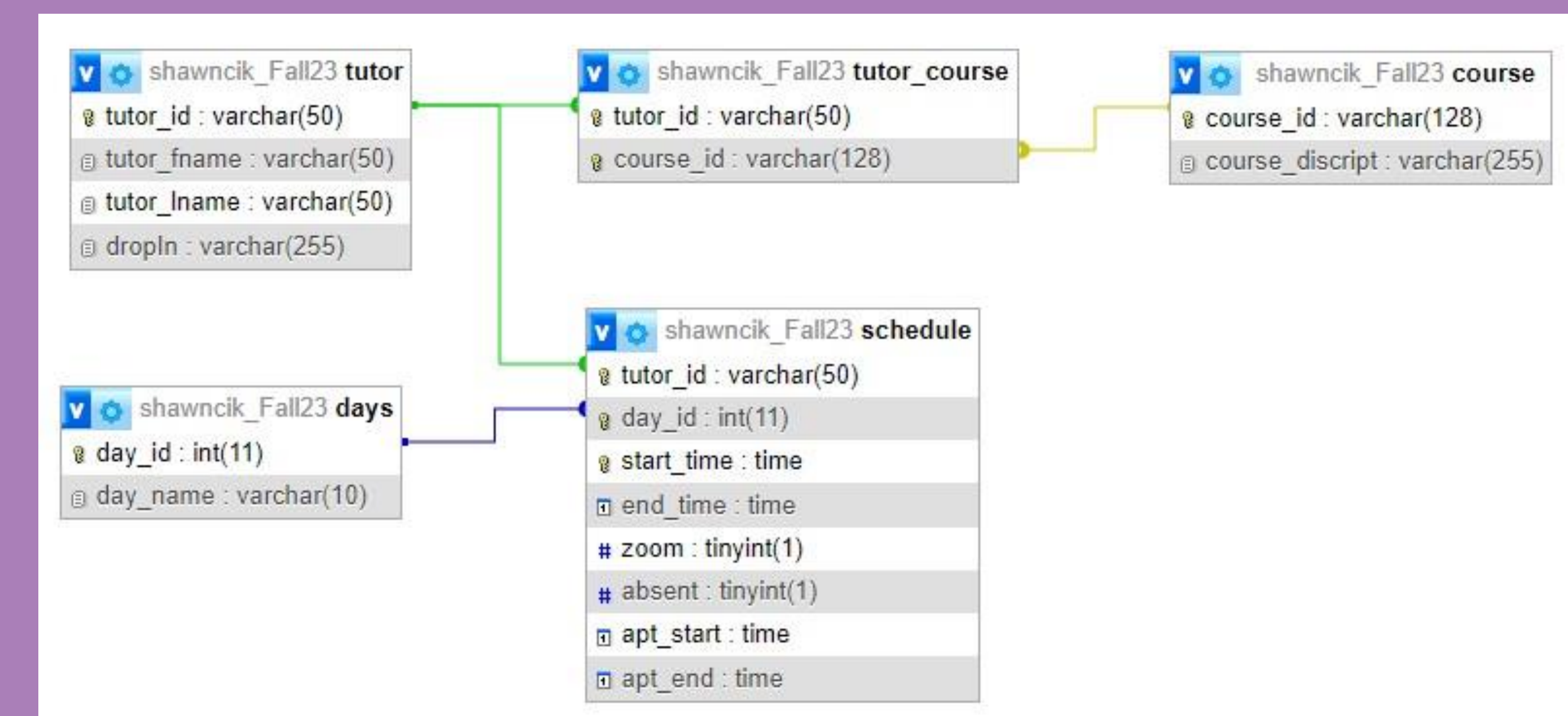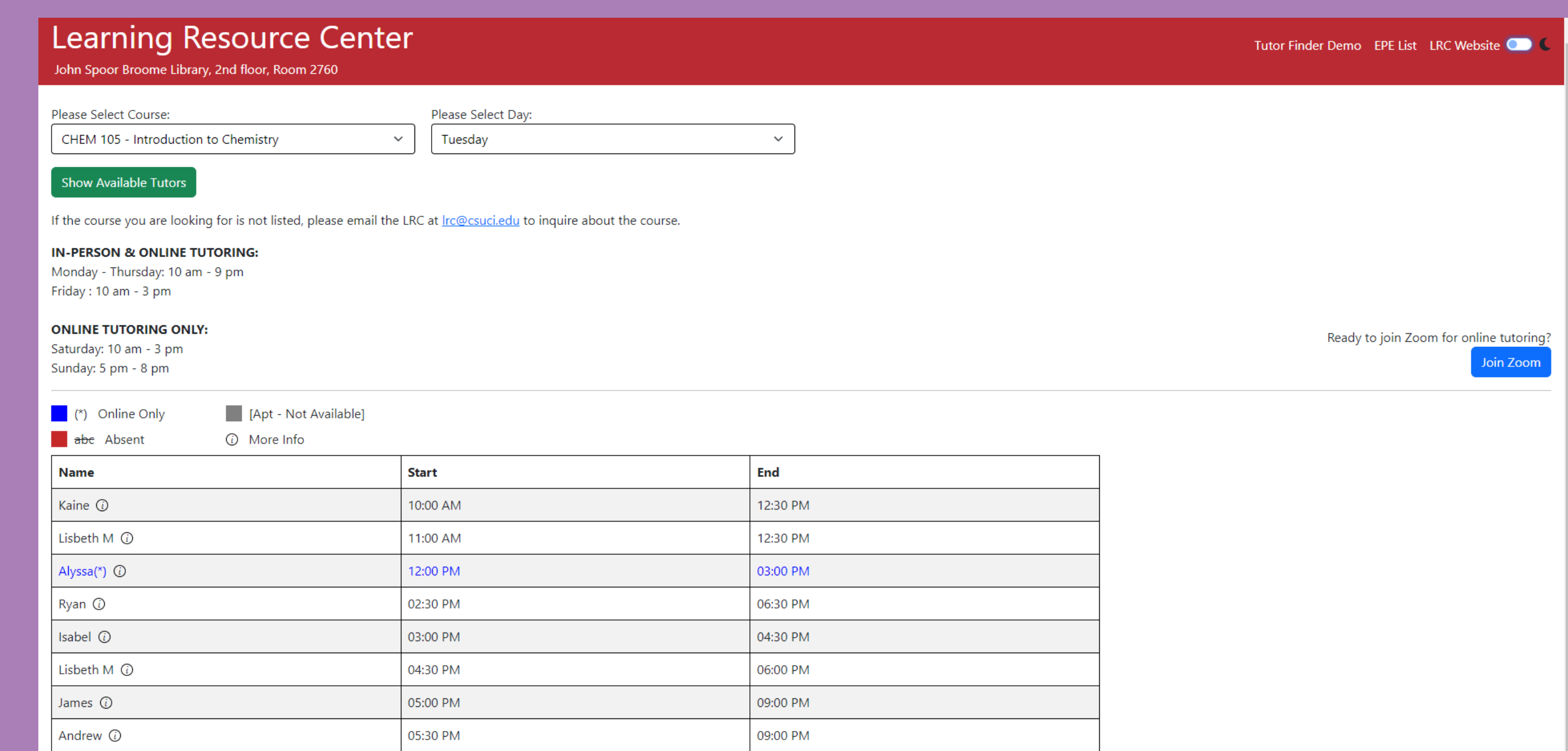https://shawn.cikeys.com/lrc/

Google Sheets

The former system relied on the utilization of Google Sheets, necessitating users to perform cross-referencing tasks between two distinct sheets to locate a tutor.

MySQL Database

The new system employs a MySQL database for the storage and comprehensive management of all data.

Front End

The front-end interface showcases a straightforward and user-friendly design. In the new system, users can efficiently access tutor information by simply selecting a course and day, triggering the display of a comprehensive table featuring available tutors and their respective hours. This interface offers a dark mode option and incorporates two distinct key types in the table design, prioritizing accessibility.

Front-end webpages are constructed using HTML, CSS, JavaScript, and Bootstrap frameworks. jQuery is employed for event handling and information retrieval across pages, ensuring a smooth and responsive user experience. Additionally, PHP acts as the intermediary between the front-end interface and the system's back-end, facilitating seamless communication and data exchange.

Front End(Admin Side)
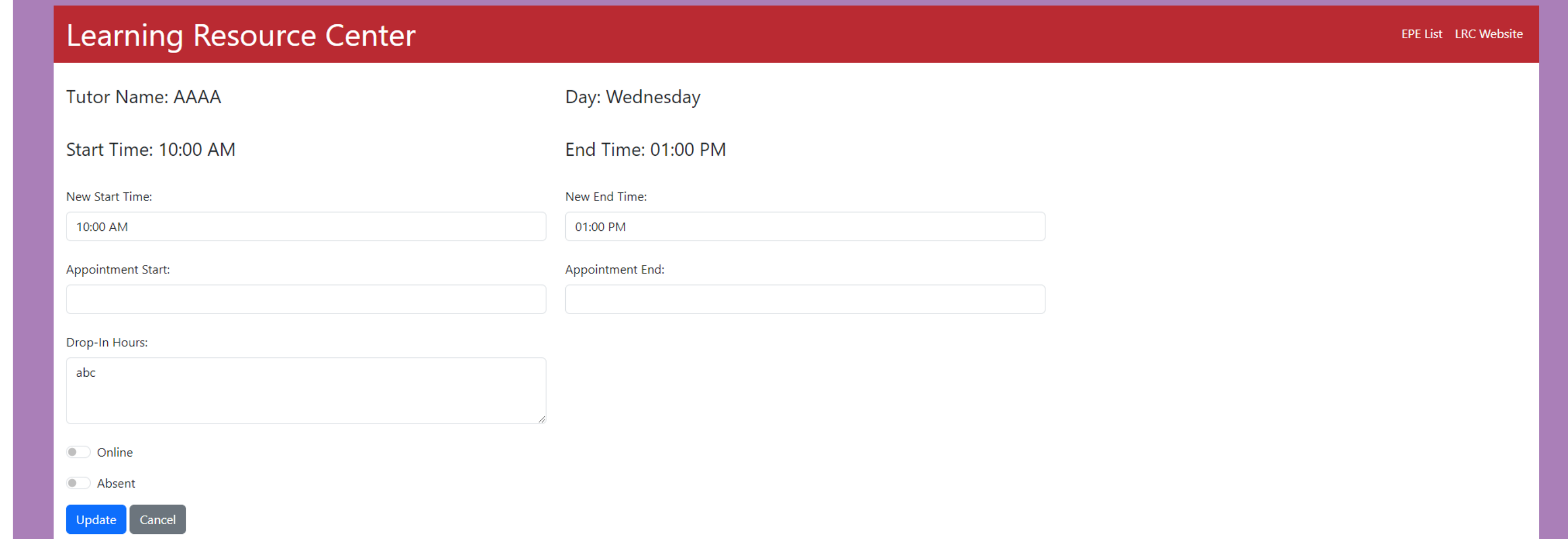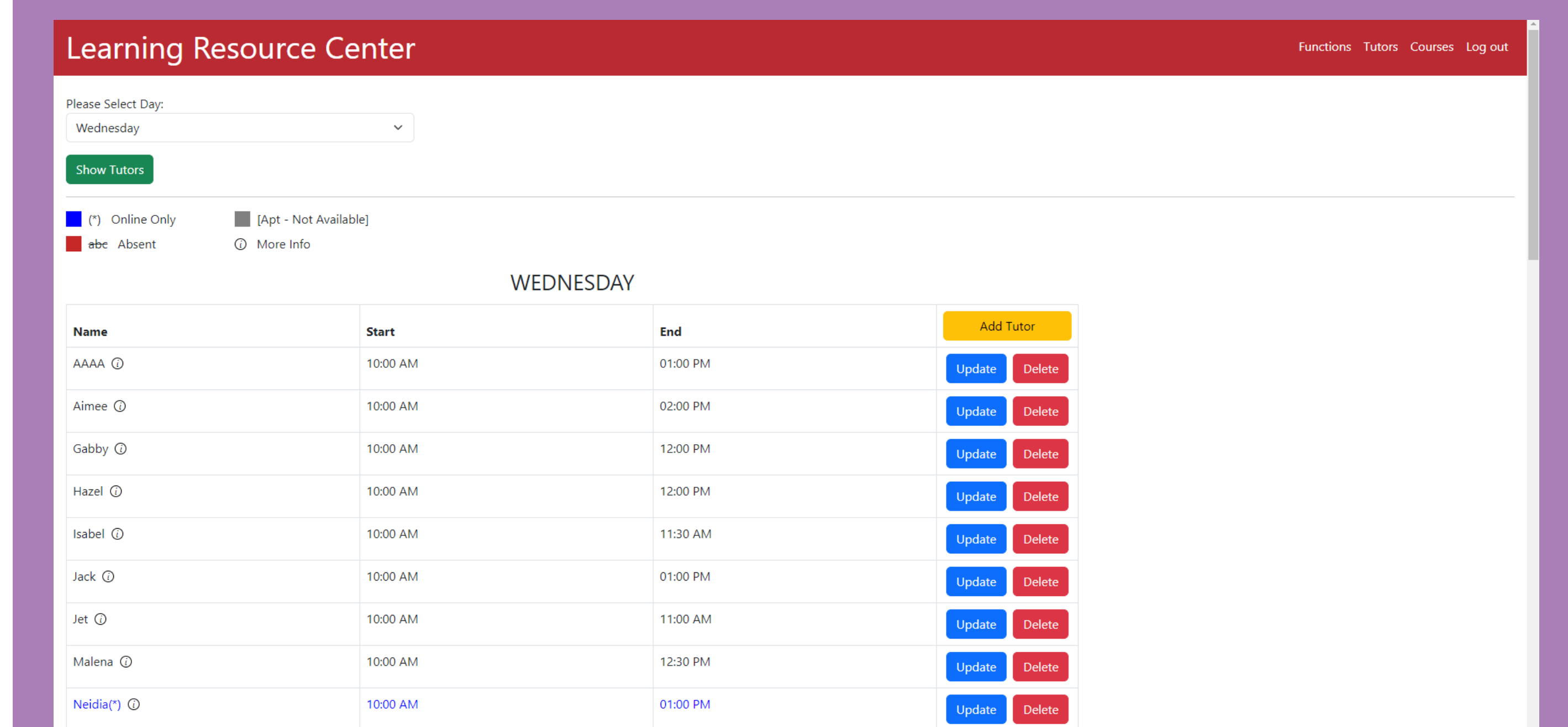
The administrative interface embodies purposeful design, ensuring a seamless user experience marked by efficient navigation and streamlined operation. Tasks like editing and updating a tutor's schedule are effortlessly managed with just a few clicks, a testament to the platform's renowned user-friendly interface that harmonizes minimalist aesthetics with robust functionality. This thoughtful approach empowers administrators for swift task execution. Additionally, the system includes a critical feature designed to alleviate administrative burdens by enabling the deletion of overdue appointments and automatic clearing of absences. This strategic functionality substantially lightens the load for administrators, fostering smoother operations and heightened efficiency within the system.

Tools Used

- HTML
- CSS
- JavaScript
- jQuery
- Bootstrap
- PHP
- MySQL

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