Project Abstract

Team 06

The Fire and Safety department scheduler developed by CITRUS provides functionality to simplify the task for managing, creating, deleting not just drills but also feedback and personnel reports that correlate with each event. For security, we have provided authentication through Duo services, permitting only IU students and associated employees to be authorized to log in to this web-based application.

How do the Front-end and Back-end layers connect? We have utilized the Rivet framework which is used throughout Indiana University and its dependent applications. This was mostly done as it provides the infrastructure for tweaking every element on the page ranging from buttons to form-fields customization. Additionally, custom icon sets have been placed throughout the website to give it a more aesthetically pleasing front-end look. Furthermore, the back-end layer which links with the IU's burrow repository helps the application perform create, read, update, delete, the basic CRUD data commands on the fly. Overall, our database design ensures that information is kept consistent throughout the website while making our application user-friendly and secure.

On the Home page, the user can schedule new drills, which asks the user to insert date, time, alongside type and building location from a dropdown list. The Full Calendar API utilizes the same drill data to output information regarding the events. It provides the essential functionality of portraying information to the user in different views ranging from the month, week, day, to list form. The user can click on the event to view more information on it. Moreover, through the Full Calendar API, the user can modify events by dragging them to a new date, as needed. Additionally, the user can also delete events by using the delete drill button and clicking the appropriate drill to delete. In addition, the home page also provides the ability for the user to see all drills and drill types. Similarly, to drills, the drill types can also be added or removed according to the needs of the user. The ability to create additional drill types comes handy as the user can specify the type into custom titles such as to-do tasks etc.

The Digital Map page within the application provides tools to manage building data within the attached database. Each building in Bloomington is associated with a unique building code that can be retrieved by the user to create a new

building, using the "Building Guide" button on this page. Moreover, this page also provides support for viewing the entire campus region through Google Maps API. This Javascript API permits users to view the map to efficiently plan for events. In addition to the multi-view ability (ranging from Terrain to Satellite), it also gives the user access to street-view which in return helps with identifying the buildings if needed.

The Drill History page permits the user to view the entire history through different categories. Similarly to the Home page, it allows the user to view all drills and manage them. Furthermore, it also permits the user to search the history through a particular Drill ID, a specific Drill Type, or through a particular location where the event happened. This is a handy tool when filtering through data to track, modify events for the user accordingly.

The Feedback Report Page, The user can create, update, delete feedback reports relating to each location within this webpage. Moreover, it also allows users to view all feedback reports created within the past, permitting edits or removal if needed for each corresponding feedback report. These Feedback Reports come in handy during drill operations, keeping crucial information stored, through the form of comments stored with the corresponding event

Similarly, the Personnel Report page permits the user to create, update, delete corresponding personnel. Furthermore, it also allows the user to view all personnel created within the past, permitting edits or removal accordingly. It also allows the user to click "Send Email" in "View all Personnel Reports" to create a new email message. The email is sent by utilizing the unique student username referenced to each person when they are created. Simultaneously, the email client is launched, asking the user to input the email address.

To conclude, when we began our journey within Capstone, we as a team hoped to make a difference for our local community by helping our university improve the infrastructure to plan for such crucial life-saving events and drills. After committing a year back we can assure that through this web application, we will be able to provide a better technical value and infrastructure to our Fire and Safety Department.

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