

Case Study: VRAS

VRAS (Virtual Reality Advanced Security) is a project focused on providing security personnel with realistic training for handling various terrorism scenarios through a VR platform.

Avg. reading time: 2 min

VRAS

Project Overview

- DAPL developed a backend system that facilitates a connection between the web app and the VR platform of the business. The backend system will utilize a client-server architecture. The server will manage user authentication, and scenario assignments, and serve scenarios to the client.

[Read more](#)



Client Background

- The business wanted us to create a robust backend system that included multiple modules and functionalities
- For VRAS, DAPL used React.JS and Node.JS to develop the platform architecture that it was looking for



Challenges

- Implementing video streaming from a VR platform to a React web application
- Incorporating a world-class training module that would include user data storage, game data storage, score storage, scenario allocation and more
- Integration of multiple language support
- Developing a role-based customer interface on the platform
- Inclusion of role-based permission

Technology Stack used



React.js



Node.js

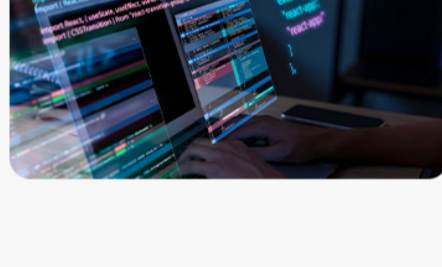


MySQL with Sequelize ORM

The Solution Provided

Solution #1

A smooth and robust backend system



Solution #2

All major modules are integrated for hassle-free and seamless operation of the VR-based platform



Solution #3

Incorporation of user authentication, scenario management, and training progress tracking and other major functionalities



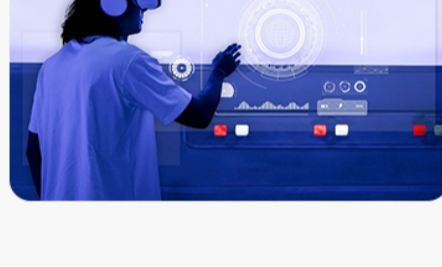
Solution #4

A clean, smooth and interactive main website with attractive designs, updated and useful content and compliant accessibility options



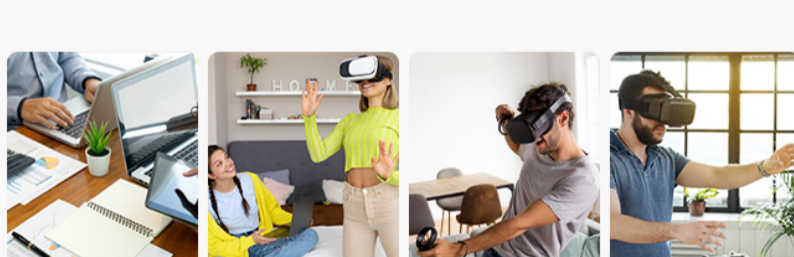
Solution #5

A smart platform dashboard customized for role-based interface access and usage



Key Features and Benefits

- Company Accounts Management
- Roles Management
- Role-Based Permissions
- User Activity Tracking
- Scenario Allocation
- User Score Storage
- Game Data Storage and Retrieval
- Historical Data
- User Progress Tracking

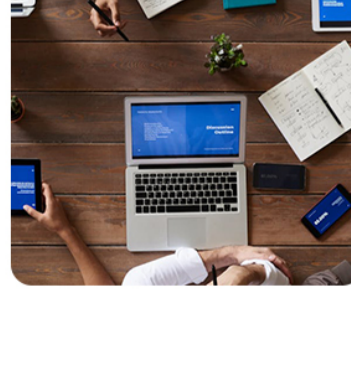


The results

- A well-performing, user-friendly, easy-to-use, smooth and interactive platform
- A smart backend for the smooth operation of the VR platform
- A well-functioning training module that includes user data storage, user score storage, game data storage, user progress tracking, and more
- Access and actions within the platform will be controlled based on user roles
- Admins can manage different company accounts within the system

Conclusion

- Development of a backend system for the brand assisted in the seamless connection of the web app with the VR platform. This helped in faster and lag-free training sessions for guards
- Attractive design, faster input response, and better experience helped in the improvement of the overall training
- Improved data storage, faster access to user and game data, and user progress tracking made it easier for the platform to optimize its operations
- Multiple language support on the main website and the availability of updated and useful content improved organic traffic on the site
- The well-designed dashboard improved the user experience and accessibility



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India

En-34 (9th Floor), Block-EN,
Sector - V, Salt Lake City,
Kolkata - 700091, West Bengal

USA

1904 Canyon Edge Dr. Austin,
Texas 78733

UK

10 Milton Cres, Ravenshead,
Nottingham NG15 9BD