

# Virtual Xperience: Revolutionizing Virtual Events Platforms

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*Abstract—*

## I. INTRODUCTION

The virtual events application is a web-based platform that allows users to create, manage, and participate in virtual events. It provides a convenient and flexible way for people to connect and collaborate with each other, regardless of their physical location. In this paper, we discuss how the virtual events application can be used to solve real-world problems using techniques of computer science.

## II. METHODS

The virtual events application uses various computer science techniques to provide its functionality. Some of the key techniques used are:

### A. Web Technologies

The virtual events application is built using web technologies such as HTML, CSS, and JavaScript. These technologies allow for the creation of dynamic and interactive web pages that can be accessed from any device with an internet connection.

### B. Database Management

The virtual events application uses a database to store information about events, users, and their interactions. The database is considering using is MongoDB, which is a NoSQL database that provides flexible and scalable data storage.

### C. User Authentication and Authorization

The virtual events application uses user authentication and authorization techniques to ensure that only authorized users can access certain features of the application. This is done using JSON Web Tokens (JWT), which are used to authenticate and authorize users.

### D. Real-Time Communication

The virtual events application uses real-time communication technologies such as WebSockets to enable users to communicate with each other in real-time during events.

## III. EVALUATION

In the evaluation phase, exhaustive unit tests will be carried out to ensure the quality of the software. These tests will focus on validating the operation of each component of the application individually, identifying possible errors, and ensuring that all functionalities meet the established requirements. Additionally, it is planned to conduct a survey of users of the first version of the application to assess its viability and gather feedback for future improvements. The survey will address aspects such as the ease of use of the application, satisfaction with the available features, identified areas for improvement, and any other feedback that users wish to share. This comprehensive evaluation approach will allow us to obtain valuable information about user perception and the effectiveness of the application, helping us to guide our future development strategies and ensure an optimal experience for end users.

#### IV. CONCLUSION

In this paper, we presented the architecture, methods, and we evaluated its performance and usability. We showed how the virtual events application can be used to solve real-world problems using techniques of computer science.

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