

Example Document

By Expo Express

Goal and Motivation

Our goal is to allow organizers to host a virtual event to showcase their work which may include projects, products, and services. Organizers will have the ability to customize the website depending on what they want to host. Due to the ongoing pandemic we want everyone to have the ability to present their work knowing that they are in a safe environment. To achieve this, we will build a website which will serve as a template for multiple events. It will allow organizers, exhibitors, VIPs, attendees, etc, to communicate synchronously or asynchronously through video conference or a chat feature. Expo Express would also be a way for attendees, organizers, etc, to view, present, and manage exhibits virtually. In the current climate of a global pandemic, organizations have had to adapt in order to avoid the spread of Covid-19. The senior design project for example, is an exposition that usually hosts many people in a closed space so in order to adapt, it is principal that everyone has a method of interacting virtually whether it's for a senior design showcase or whatever other virtual event they may need.

Approach

With the shift to an online world, organizers need a way to host events in order to show off their latest tech, host a conference, or showcase their desired item or service. In order to accomplish this goal, the main feature of Expo Express will be the ability for organizers to customize the website to fit any event they want to plan. They will be able to organize how they want the projects laid out, either by alphabetical order, common themes, etc. They will be able to confirm who is allowed in the event and make sure that attendees can't disrupt the ongoing festivities. Likewise they will have the ability to finalize how the voting is done and results are presented. They will be able to manage voting/judging forms for attendees and judges.

This leads into the different features that each type of user will be able to use with Expo Express. Exhibitors will have the ability to upload relevant information that contributes to the work they have done. This will include documentation whether it is a pdf, word document, markdown file, etc; also included are: images, videos, links to external sources and anything else that would benefit them to properly show what has been accomplished. They will be able to customize their page to what they feel is best suited for their project. The goal is to give equal opportunity to discuss their work like they would if they were in person.

Attendees will be able to communicate with the exhibitors via a chat room or by requesting video conferencing. By logging into the website the attendee will be able to join a project chat room that is specific to that exhibit. Moreover the website will let attendees comment on the exhibits

and have a section for questions and answers. They will also be able to vote under certain categories that would be best assessed by the community. Through this polling feature, attendees can communicate which exhibit they enjoyed the most. They can also leave comments on the exhibits in case they have questions or would like leave their support about what is being presented.

VIPs will be in a separate category upon signup. They will enjoy many of the privileges given to the attendees such as using the chat room, commenting and asking questions, and requesting video conferences. Additionally, they will be able to judge and vote for special awards.

Novel Features / Functionalities

Conferences, showcases, among other events usually take place face to face, since this option is limited due to the ongoing pandemic, exhibitors, organizers, and the community need a way to interact with each other. This is why implementing a communication system (synchronous and asynchronous) is vital in Expo Express. With the amount of work that goes into these events there will be a way for exhibitors to get their message out to the public on what they accomplished. Exhibitors will have the ability to video conference with the public.

Technical Challenges

As Computer Science students, we have learned many programming strategies, however, applying our knowledge to develop a website will be the biggest challenge. Web development is a new field for all of the team members. As our primary languages being C, we will be stepping out of that realm to use Python with Django or PHP to create this website. We will also need to find a Customer Management System (CMS) as well as a hosting provider to allow people actually access the website.

To decide which website to choose for hosting, we will need to learn how it manages a SQL or NoSQL database. This is pertinent in order to keep track of how people will be logging in, and storing their content with our website. With sqlite3, postgresql, mysql, among many others, we have to find out which would be best suited for housing all the information that will benefit the students to showcase their work.

Another challenge is how we will connect students with VIPs, faculty and others. We will need to learn how to import a CMS feature or use custom code to allow for users to communicate through a messaging system. In addition to that, how many people can be in a chat room at once so our site doesn't crash. As well as how many video calls can be ongoing at once and which platform to use for them.