

Our software is self adaptive because the website can adjust settings, parameters and behaviors based on our projected user base, and their expected devices. This is because our current application currently has 3 web views: a club owner view, a UVic administrator view, and a public view. We also understood that the majority of our user base would likely be mobile users. We made this assumption based on the fact that if a club was to host an event, a potential majority would then want to access the site in order to figure out where the club was to meet, and to adapt to any club meeting plans, IE: changing rooms, or grabbing equipment. Because of this, we were able to create the majority of our application with mobile users in mind causing us to use React Bootstrap as our styling library of choice due to the reactive nature of Bootstrap. It was also understood that our system had to respond to large influxes in demand. Because of this, we decided to containerize our application so it can be run on a scalable system, such as Kubernetes, or through Docker Swarm. The reason we figured Docker Swarm, or Kubernetes would work best was because a traditional monolithic system wouldn't be able to scale up quickly enough to the influx in demand, which would cause great grief and frustration to a user base who are likely feeling a time crunch. We also chose a container management system that would be advantageous due to the added benefit of being able to scale down quickly in order to conserve resources for other UVic systems. In this process, we decided to choose the React framework due to the self-adaptive nature that React provides, giving us the ability to add or remove features as needed, while also making the barrier of entry for newly onboarded developers significantly lower.