

### Background and Inspiration

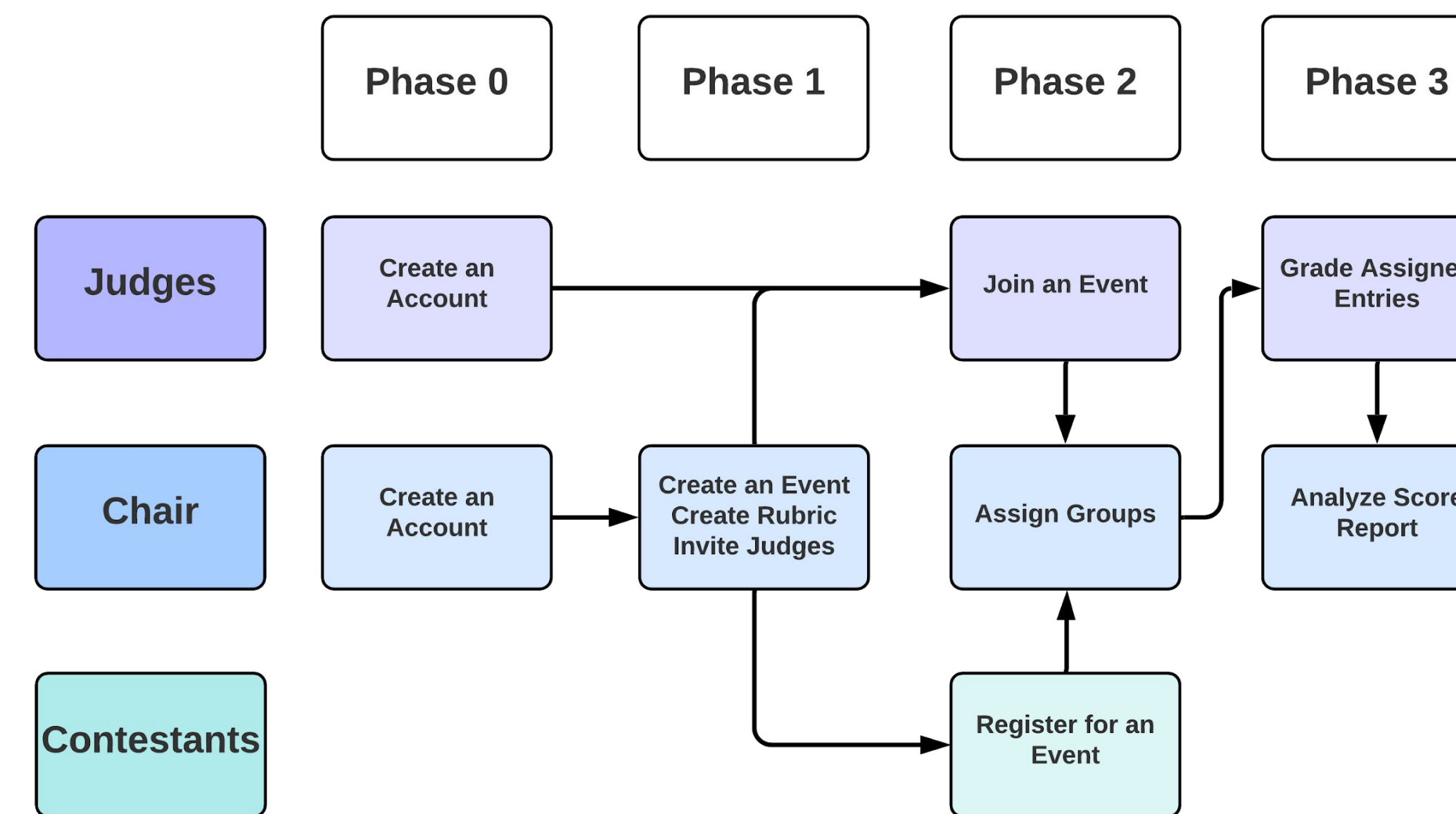
Our client, Dr. Michael Scherger, serves as the poster chair for the Consortium for Computer Sciences in Colleges, specifically the South Central Region. This organization hosts small regional conferences that focus on computer science education. It is divided into nine regions, and the south central region is comprised of Texas, Oklahoma, and Louisiana.

At the CCSC exists what is called a poster session which serves as an opportunity for researchers to showcase their research to other conference attendees in the form of a poster. These posters can cover any computer-related research topic, much like this very poster.

Since our client has served as the poster chair for this event, he has been directly involved in planning and running the event for the past few years. Since no online or mobile system is in place, this is a fairly stressful task, as our client, and anyone he appoints, has to run this completely using pen and paper. This can be a time-consuming process if they have a large amount of poster submissions.

Because of these pains involved with running the event, our client came to us to help him develop a system that can be utilized for running this event in the future.

### Phase Map



### Phase 1

- Chair will create an event by clicking on "create event" button by entering the event details where he can enter the title of the event, select the date and time, and location of the event.
- Chair also needs to create a rubric. To create a rubric, chair needs a Category and its sub-categories. Each sub-category will have points to be scored from which will add up to be the total/max point of that category. He can create as many categories and subcategories as the rubric requires. Once every requirement is fulfilled chair can click save.
- Chair needs to invite judges so they can utilize the rubrics to grade their assigned entries. To invite judges chair clicks on the plus icon to generate a pseudo random code which is linked to his event. After generating a code, he will copy the code and send it to the judges. Judge will use that code to join that event.

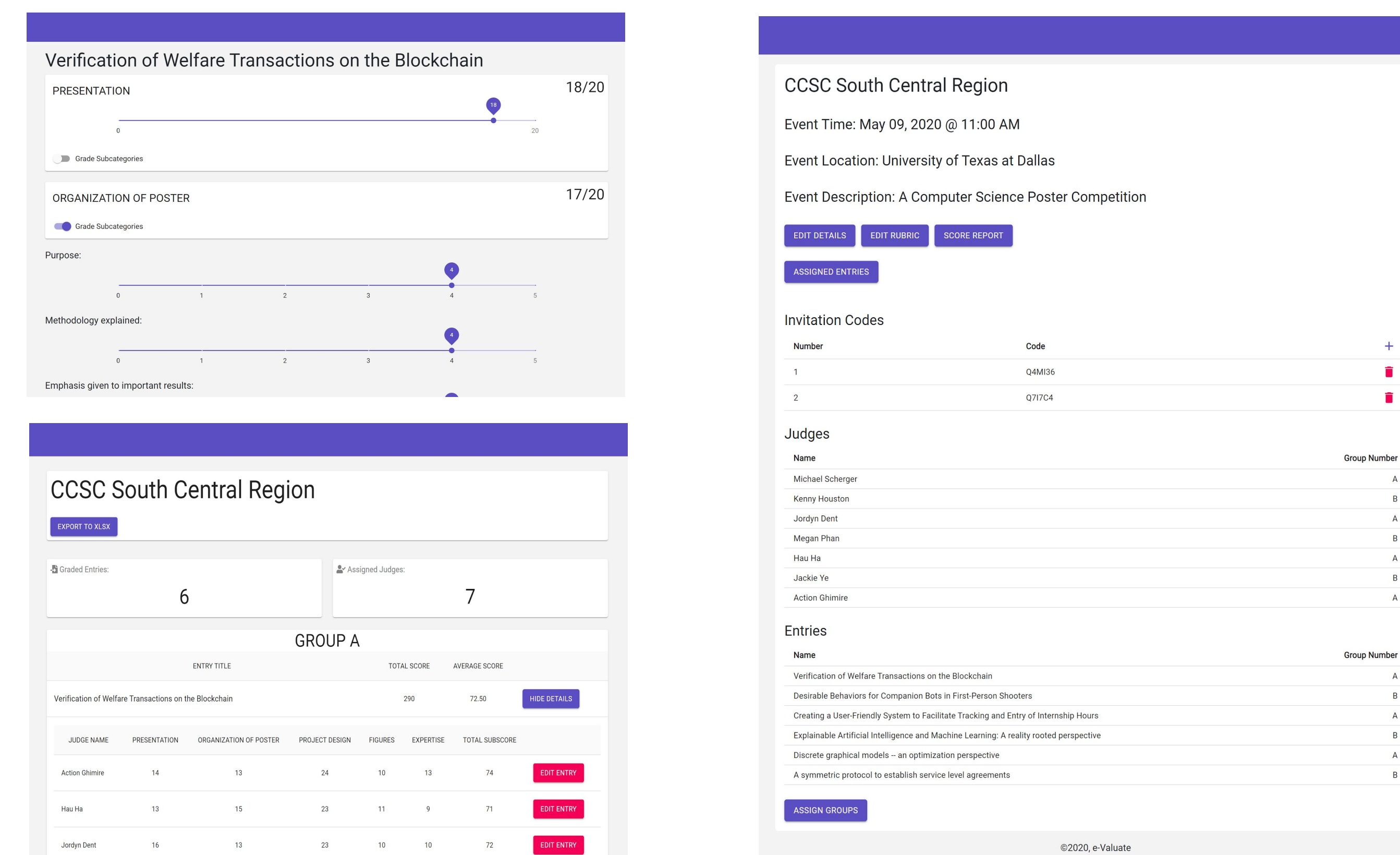
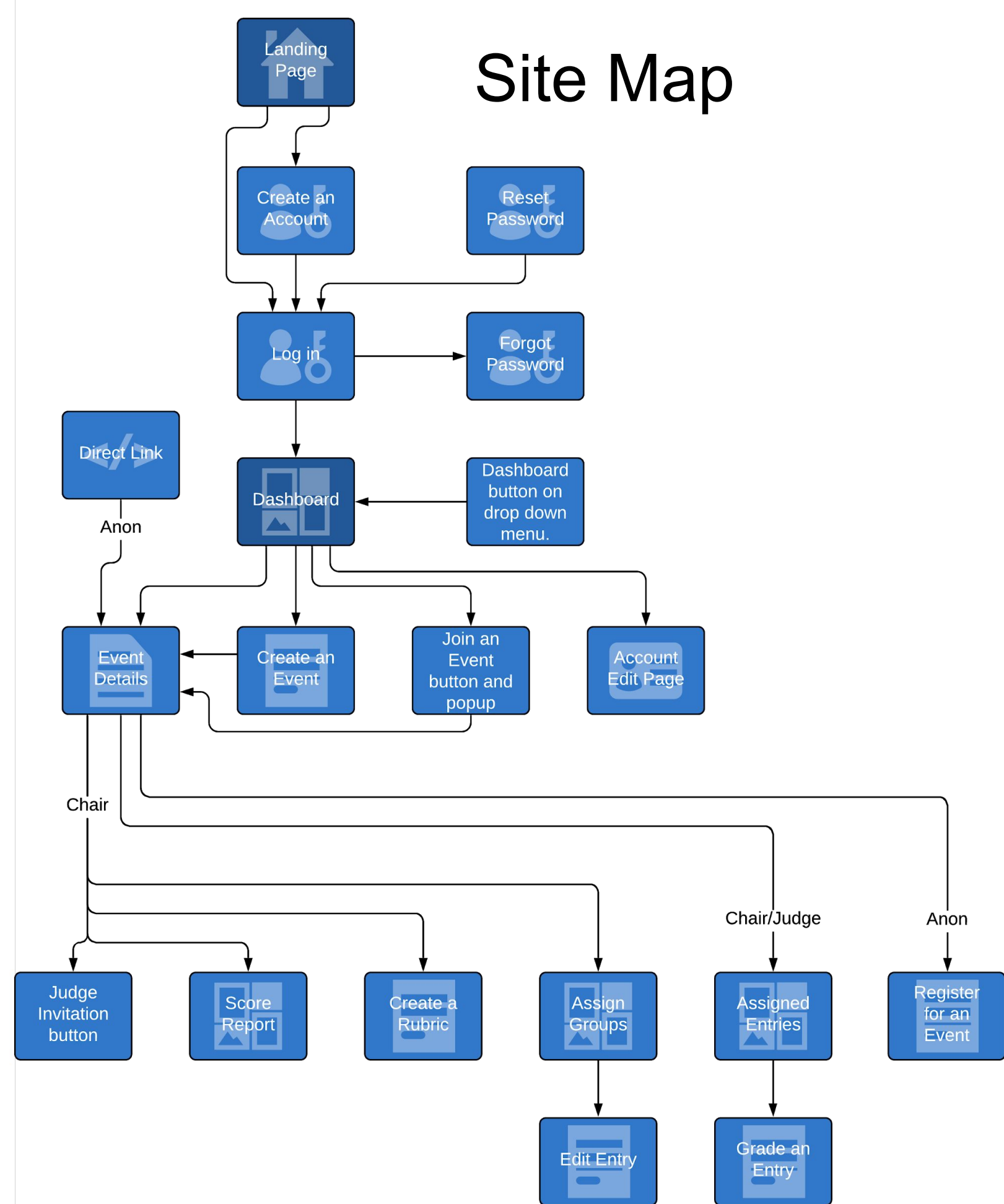
### Phase 2

- Judges: Join an event
  - Get the invitation code from the Chair
  - Create an account
  - Click 'Join Event' button in the dashboard and type in the invitation code
- Contestants: Register an event
  - Visit the event details page
  - Type in entry information and submit
- Chair: Assign groups
  - Click the 'Assign Groups' button in the event details page
  - Change the number of groups (up to 5)
  - Assign judges and entries to different group

### Phase 3

- After the chair finish the Assign Group process, each judge will have access to a list of assigned entries.
- When a judge selects an entry, the system will take the judge to the grading page for that entry, where they can grade each particular categories. The judge also can select the Grade in Subcategories mode in order to grade each subcategory specifically. The judge can add a comment about the entry that can be seen by the Chair in the Score Report Page.
- After every judge finish the grading process for every entries, the chair will have the access to a Score Report that includes all of the scores for every entries. The chair can view the score info by selecting the Score Details button next to every entry, which will show every scores that were given for that entry only. The page also allow the chair to change any particular Score in case of unexpected event. Finally, the page includes the Export to Excel button, which will export all of the data to an excel file, which will help the Chair for analyzation process.

### Site Map



### Technologies Used



Spring Boot is a Java-based framework used for backend development.



ReactJS is a JavaScript library for building user interfaces.



MySQL is a relational database management system.



An AWS Amazon Linux EC2 instance hosts our web and database servers for free.

### Conclusion and Future Work

With the conclusion of this project, we have successfully created an online and mobile-friendly web application that utilizes the latest in web technology to meet the project's requirements. We provide a clean and friendly UI/UX and flawless features that allows users to easily use the application.

While the main purpose of this application is to be utilized by the CCSC to host their poster session, its function as a general contest judging and management service makes it available to whoever may need it.

We hope to see it utilized in the future by the CCSC and any other group who may need it, like TCU's own Student Research Symposium.

### Acknowledgements

We want to thank our client and instructor, Dr. Scherger, for his guidance throughout the process. His involvement with the CCSC is what brought this project to life, so we would also like to thank the CCSC for their support. We would also like to thank Dr. Wei for additional guidance in software engineering and helping us choose the best technologies for our project.