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**e-Valuate**

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# **Software Requirements Specification**

**Version 1.0.0**

e-Valuate	Version: 1.0.0
Software Requirements Specification	Date: 06/May/20

## Revision History

<b>Date</b>	<b>Version</b>	<b>Description</b>	<b>Author</b>
06/May/20		Introduction and section 2. User Classes and Characteristics. Design and Implementation Constraints. Usability and reliability, and other missing information.	Action Ghimire
06/May/2020		External Interface Requirements	Hau Ha
06/May/2020		Security, Reports	Jackie Ye

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# Software Requirements Specification

## 1. Introduction

### 1.1 Purpose

This document describes the functional and nonfunctional requirements for the e-Valuate web application. This document is intended to be used by the members of the project team who will implement and verify the functions of the system.

### 1.2 Project Overview

Each year, the CCSC (Consortium for Computing Sciences in Colleges) South Central Region hosts a conference in which contestants can submit research posters to be judged. Any given year can have dozens of posters, but since the adoption of this conference, organization and judging efforts have been completed by hand (and often on paper) by the chair and his colleagues.

When contestants sign up for this event, they must contact the chair directly. This requires time consuming and unnecessary work on the part of the chair. Then, during the event, judges must grade each poster using a paper rubric and a pen. Then, all judges' scores are compiled together into an excel spreadsheet. This is a very time-consuming and error prone process which requires a lot of moving pieces to be successful.

e-Valuate is an online event management and judging platform which aims to streamline this process. Our solution removes the headache of doing everything manually and allows everyone involved with the conference to utilize the benefits of the service. e-Valuate also allows for similar contests to reap the benefits of our digital service, by leaving the structure of events and rubrics to be customizable.

### 1.3 Definitions, Acronyms, and Abbreviations

For all terms and their definitions, refer to the glossary.

### 1.4 References

1.4.1 *Use Cases*

1.4.2 *Glossary*

1.4.3 *Vision Document*

### 1.5 Overview

This document contains the requirements of the system. The SRS document also includes a general overview of the Site and its users, followed by a more detailed description of the use cases. It will then provide details as to the data requirements for the Site as well as any external requirements or attributes associated with the Site.

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## 2. Overall Description

### 2.1 Product Perspective

e-Valuate aims to reduce the tedious, time consuming, error prone system of manual processes that during the organization and runnin of the CCSC. The goal is to completely remove any form of repetitive or error prone tasks by moving to a completely electronic and automated system.

### 2.2 User Classes and Characteristics

User Class	Description
Chair	Chair is the person who is incharge of the event. He needs to create the event, he also needs to create the rubric so that the judges can utilize that rubric to grade the entries the contestants submitted, and he will need to invite the judes using our invite system. Once the judges join and contestants submit their entries, the chair is required to assign groups to the entries and the judges. Chair also needs to view the score report once the grading process is completed. and select the winner.
Judges	Judges are picked by chair, they can be anyone the chair thinks is qualified. They use our system to grade their assigned entries. Judges can only grade the entries in their assigned group.
Contestants	contestants have very little to do in our system. They will have the event link from the chair, once they go to the event link they don't need to have an account. they can register for the event by providing all the information required. Once they register they will have to show up to the event with their project/product to be judged by the judges.

### 2.3 Operating Environment

From the user's perspective, the final product shall be a web application capable of running in any modern browser. From the owner's perspective, the app shall run on a web hosting platform running on a linux server. The server must be capable of hosting a database in addition to the application. We will be using the AWS server for our hosting platform.

### 2.4 Design and Implementation Constraints

CO-1: The system shall use the current corporate standard Oracle database engine.

CO-2: The website shall use the current version of MySQL 8.0.19

CO-3: All HTML code shall conform to the HTML 5.0 standard.

CO-4: All pages and frontend shall use the latest version of Bootstrap, Version 4

CO-5: Backend system shall use the latest version of spring and maven installed.

CO-6: Database connection shall used the latest version of Hibernate,

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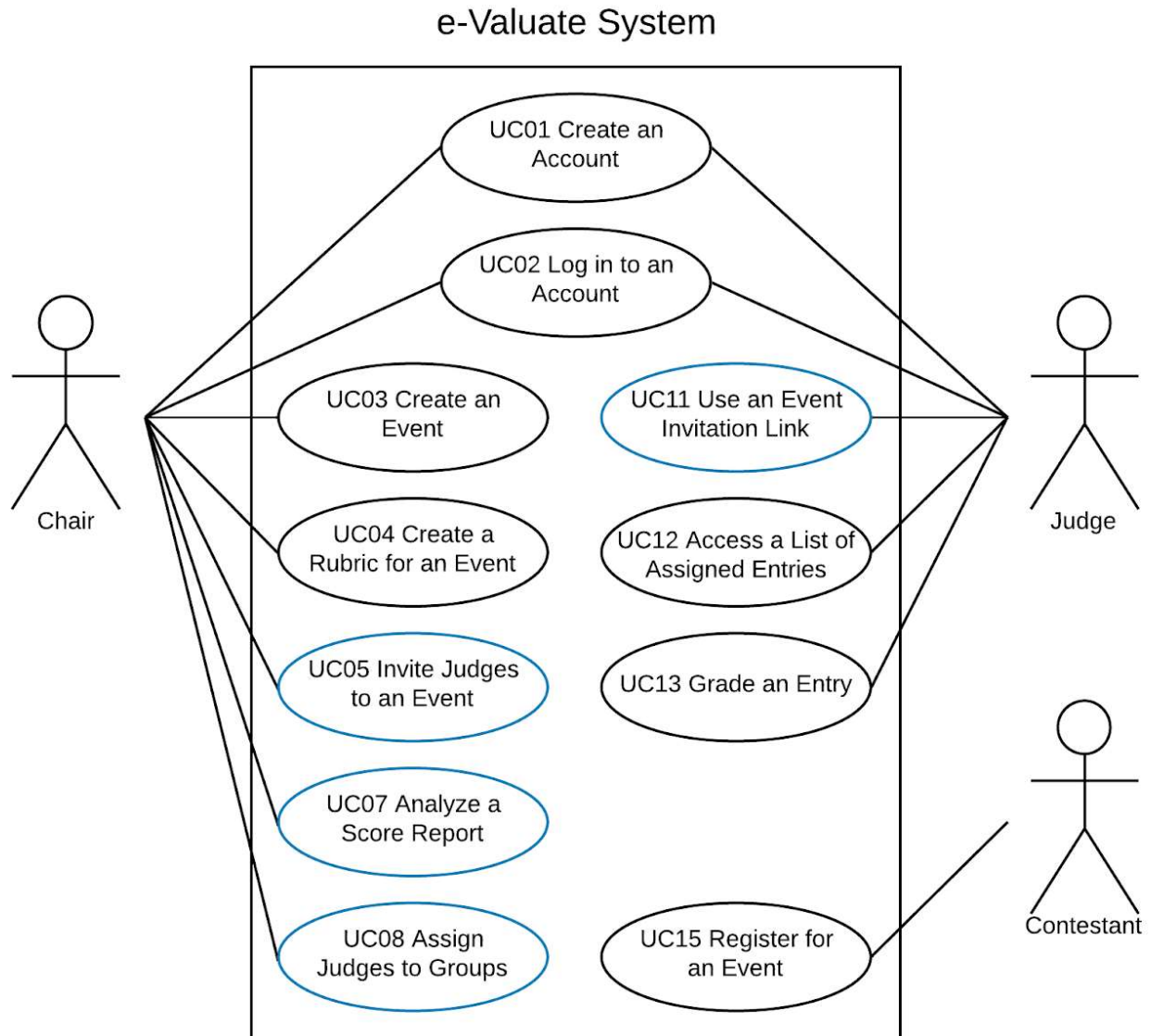
## 2.5 Assumptions and Dependencies

AS-1: All the judges will have a smartphone and that phone has access to an internet.

DE-1: Hosting will be done through AWS

DE-2: Shiro is used for security and password encryption.

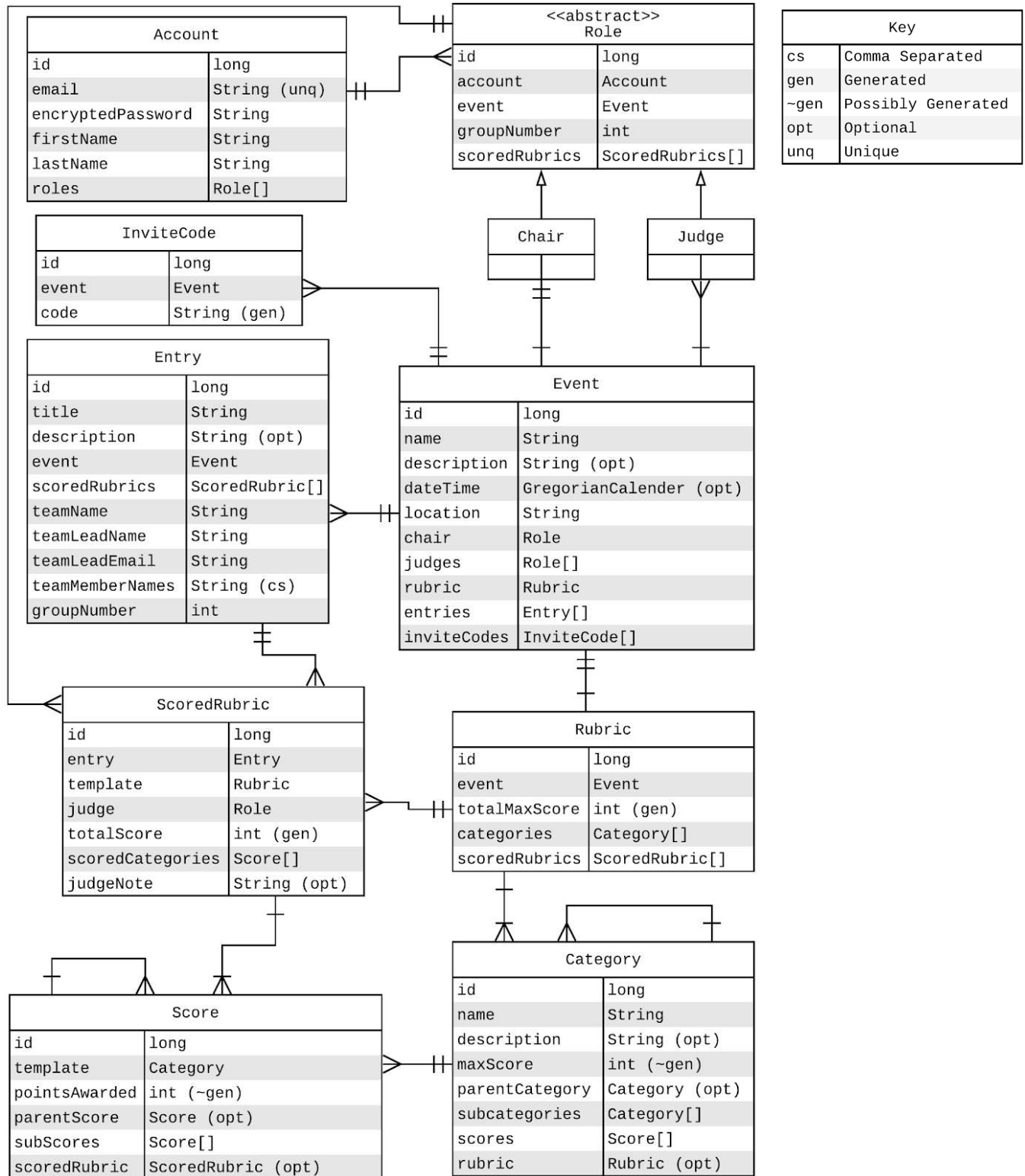
## 3. User-System Diagram



## 4. Data Requirements

### 4.1 Class Diagram

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## **4.2 Data Dictionary**

All of our terms and definitions are in the vision document. Many terms used within e-Valuate could have different meanings in different contexts. So, the vision document is attempting to restrict words to single definitions in order to be as specific and as concise as possible.

Please refer to the vision document.

## **4.3 Reports**

A detailed score report will be generated automatically on our website, which includes every single score given by each judge, the highest score, and the average score. In order to make our score report can be viewed offline, we have also made a downloadable excel version of our score report.

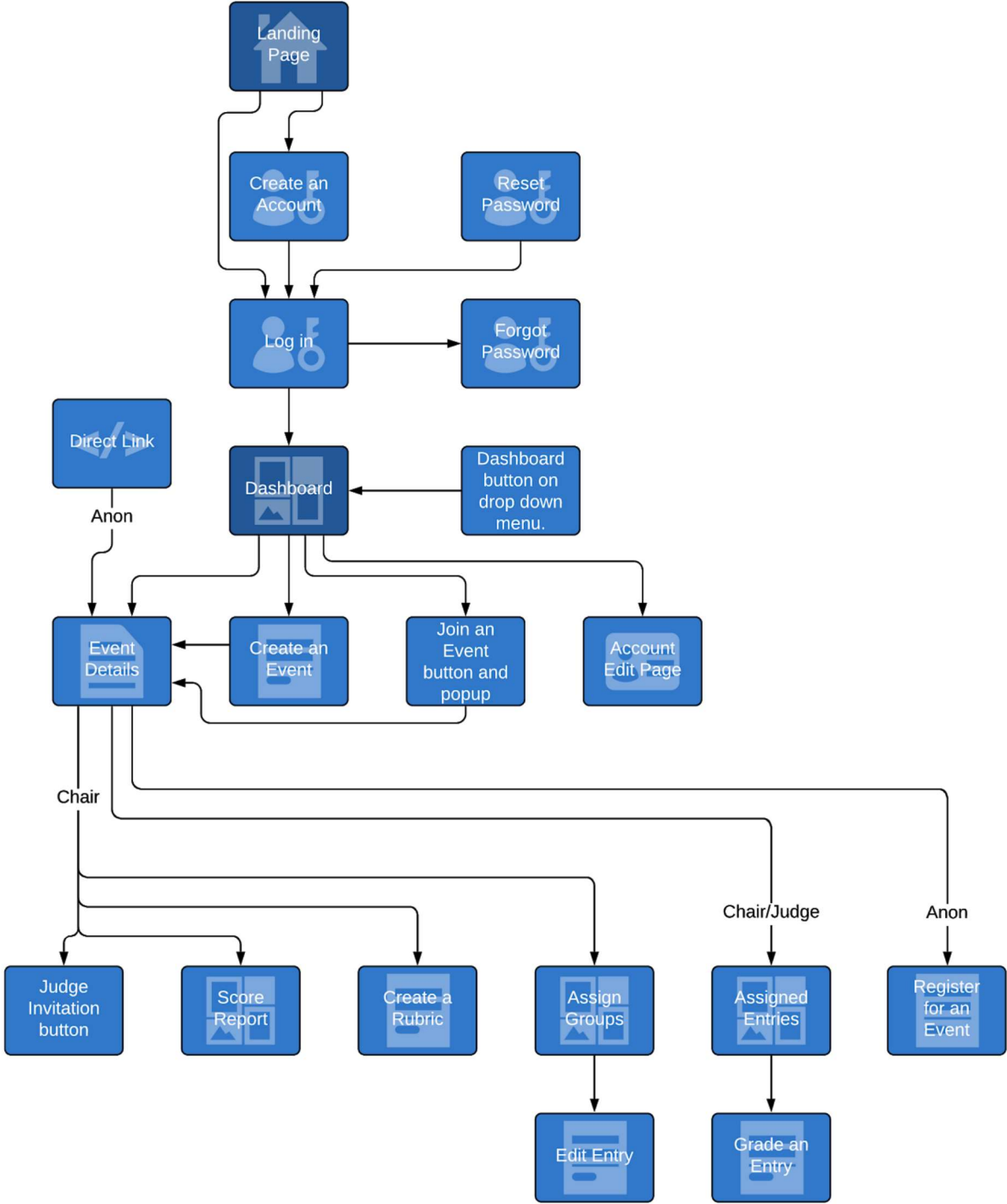
## **4.4 Data Acquisition, Integrity, retention, and disposal**

DI-1: The system shall retain all information related to judges, contestants, and entries until the administrator(Dr. Schger) decides to remove them from the system.

DI-2: all the accounts and events will be stored in the database and the system will retain all those information until the administration decides to remove them or decides to sweep the system.

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4.5 Site Map



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## 5. External Interface Requirements

### 5.1 User Interfaces

The application has standards for fonts, icon, button, color schemes and error message. Every standard component was listed in the form of JavaScript files in the frontend/src/Components folder.

### 5.2 Software Interfaces

SI-1: Account System

The Account System will transmit the information when an user wants to log in in order to authenticate and authorize or create an account in order to create and save an account into the database.

SI-2: Event System

The Event System will transmit all of the events that a user participates or hosts to the Dashboard system. Besides, the Event system also communicate with the Entry and the Account system to check whether that Entry or Account belong to the event or not

SI-3: Entry System

The Entry system will communicate with the Event system whenever a submission was sent to the Event. Moreover, the communication between Entry System and Event System will make sure whether an entry belongs to the event or not.

SI-4: Score System:

The Score system includes the individual Score and the Scored Rubric, will serve the purpose of saving the Score for each Scored Rubric. The Score System communicates with the Entry system to create a connection between a Scored Rubric and an Entry.

SI-5: Assign Group System:

A specific system that will communicate with Account System, Event System and Entry System in order to determine the assigned entries list for each judge/chair.

SI-6: Score Report System:

Another specific system communicates with Entry System and Score System in order to create a report for every connection between Score System and Entry System. This system also creates an Excel for the chair that includes every item of the Score System.

### 5.3 Hardware Interfaces

[This is for embedded systems]

### 5.4 Communications Interfaces

CI-1: The Account System will send an email of confirmation and welcome message to the new user. The System also sends out an email when an user forgot the password, which will include a link to reset the password.

CI-2: The Entry System will send an email of confirmation to the team leader of the new submission.

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## 6. Quality Attributes

### 6.1 Usability

Training time

- It should take less than 20 minutes to successfully train the chair and all regular users on their main features.

Estimated Workflows:

- Create an account: 1 minute
- Login to the system to view the dashboard: 30 seconds
- Change password and login: 2 minutes
- Logout of the system: 3 seconds
- Create an event: ~1 minute
- Create a rubric: 2-3 minutes
- Generate invite codes: 1-3 seconds
- register for event as contestants: 1 minute
- Join the event as judge: 20 seconds
- grade an entry: 2-3 minutes

### 6.2 Reliability

- Availability – our application will be available 24 hours.
- Mean Time Between Failures (MTBF) – probability of failure is very low because we tested the application heavily and addressed all the bugs..
- Mean Time To Repair (MTTR) – depends on what is wrong and if the server is down then depends on AWS response time.

### 6.3 Performance

Resource use: The size of the application is approximately 65 MB in memory and 68 MB on disk.

### 6.4 Security

There are 2 different types of accounts: Judge and Chair. If the user joins the event as a judge, he/she will not be able to view the score report. There are also some chair-only operations, which include: assign judges and entries to groups, create/edit the rubric, edit event details (event time, location, description), get invitation code.

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## 7. Phase Map

