SOFTWARE ENGINEERING

Software Requirements Specification

International Conference Management (Frontend)

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Table of Contents:

1. Introduction:

'International Conference Management System' is a web based application that can be used to host any conference. It offers several services such as attending the conference events such as keynote speakers,invited talks etc. Participants can reserve a ticket for the conference. It also contains an activity dashboard that contains the status of all the conferences attended by the participant. Also it contains a FAQ section where participants can ask their queries and can also reply to other participant doubts/queries.

1.1 **Purpose:**

Conference is a meeting for researchers to present, discuss, identify important problems and formulate future research direction on specific themes. It provides a true learning environment.

Holding conferences and inviting people from all over the world could be very hectic and troublesome. The processes will surely consume a lot of precious time and complicated works if a conference is conducted manually.However, this conference management system makes our lives easier by giving us the option to hold conferences online which is beneficial for both participants and the host.It also gives user a great experience by helping the user to interact with people living in different areas thus bringing them on a common interface.

From participant's point of view:
- Conferences are held all over the world having different time zones.
- There is a possibility that the place where the conference is taking place is far from where the participant lives which may lead to travel issues.
- Traveling may also prove to be very expensive which may also lead to cancellation of conference plans.
- It may also lead to wastage of time in traveling and also can be very hectic.
- Also there may be a need for an urgent conference which may not be possible in offline mode due to time constraints.

From Conference Host's point of view:

- Similar to participants, it may be possible that the place of conference is far from the host's residence which may again lead to high travel costs and hectic schedule.
- Online conference is also more efficient because it helps them to reach out to a large audience thus increase the involvement of individuals all around world bringing up variety of ideas on a common platform
- It may be possible that the host has to hold 1 or more conferences which may prove to be very hectic due to traveling and may lead to health issues and thus the host also cannot deliver his/her best if he/she is not fit.
- Also it is difficult to answer queries of the participants and also consumes a lot of time which may also defeat the entire purpose of the conference.

1.2 **Scope:**

We describe what features are in the scope of the software and what are not in the scope of the software to be developed.

In Scope:

- It allows participants to attend the various events involving keynote sessions, invited talks,conference events: research presentations, poster presentations, and private meetings.
- All registered people on this web application can view current status and activities that planned to be conducted along with the detailed program schedule.
- It provides a medium for hosts and participants to communicate and answer queries and share updates through FAQs.
- Participants need to reserve a seat among total available seats by registering in the conference.

Out of Scope:

- We can make only recommendations of Conferences, but it often becomes an exercise in futility. It is rarely that any concrete action is taken on these recommendations.
- As the number of seats for conferences are fixed by the Admin , no one can dynamically change the number of seats but admin .Thus only

a fixed number of participants can attend the conference.
- Every Conference has a limited number of seats hence only a limited number of people can join the conference depending on who registered first.

1.3 Definitions, Acronyms, and Abbreviations:

Acronym and Abbreviations:

- SRS: Software Requirement Specification
- FAQs: Frequently asked questions

Definitions:

- Conference Management System: It is the system to host virtual conference events involving keynote sessions, invited talks, research paper presentations, poster presentations, etc.

1.4 References:

IEEE SRS Format

1.5 Overview:

The rest of this SRS is organized as follows:

Section 2 gives an overall description of the software. It gives what level of proficiency is expected of the user, some general constraints while making the software and some assumptions and dependencies that are assumed.

Section 3 gives specific requirements which the software is expected to deliver. Functional requirements are given by various use cases. Some performance requirements and design constraints are also given.

2. Overall Description:

2.1 Product Perspective:

"Conference Management System" is aimed to provide a more efficient way of organizing as well as attending conferences.It helps the participant to attend the conference of his choice with just one click thus helping him to save a lot of time aiding him to attend multiple conferences in a short period of time. Also it is more cost efficient for the participant as well as host since the web application would help them to cut down their travel and stay cost.It gives participants a great user experience and provides a platform to search for all the conferences happening around the world . Thus, overall, this application reduces the difficulties of both host and the participant by providing them an easy and cost effective mode of communication.

2.2 Product Functions:

A user can be both host and participant.

ROLES

- Host
- Participant

ROLES	DESCRIPTION OF ROLES

Host:

Login	Logins and dashboard appears.
View / Update Profile	Host is able to view or update their profile
Create conference	Hosts can create a conference for post paper presentations,keynote sessions,invited talks or for a private meeting and give detailed description of conference including schedule and speakers information.
Create participant list	In case of a private meeting, the host can create a participant list and only those participants would

	get an invite link.
View/Answer FAQ	Host can view and can also answer the queries
Post FAQ	Host can post answers to FAQ regarding any queries related to events.

Participant:

Login	Logins and dashboard appears.
View keyNote session	It shows all the key note sessions and invited talks that are held globally along with the description of each event.
View Conferences	It shows all the conferences that are held globally along with speakers..
Register in events	Participants are able to register for the various events and reserve their seat in it.
View FAQ	Students can view the Frequently Asked Questions (FAQ).
View / Update Profile	Student is able to view or update their profile
Post FAQ	Students can post FAQ regarding any queries related to events.

2.3 **User Characteristics:**

The user should be familiar with the operation of Web Applications.

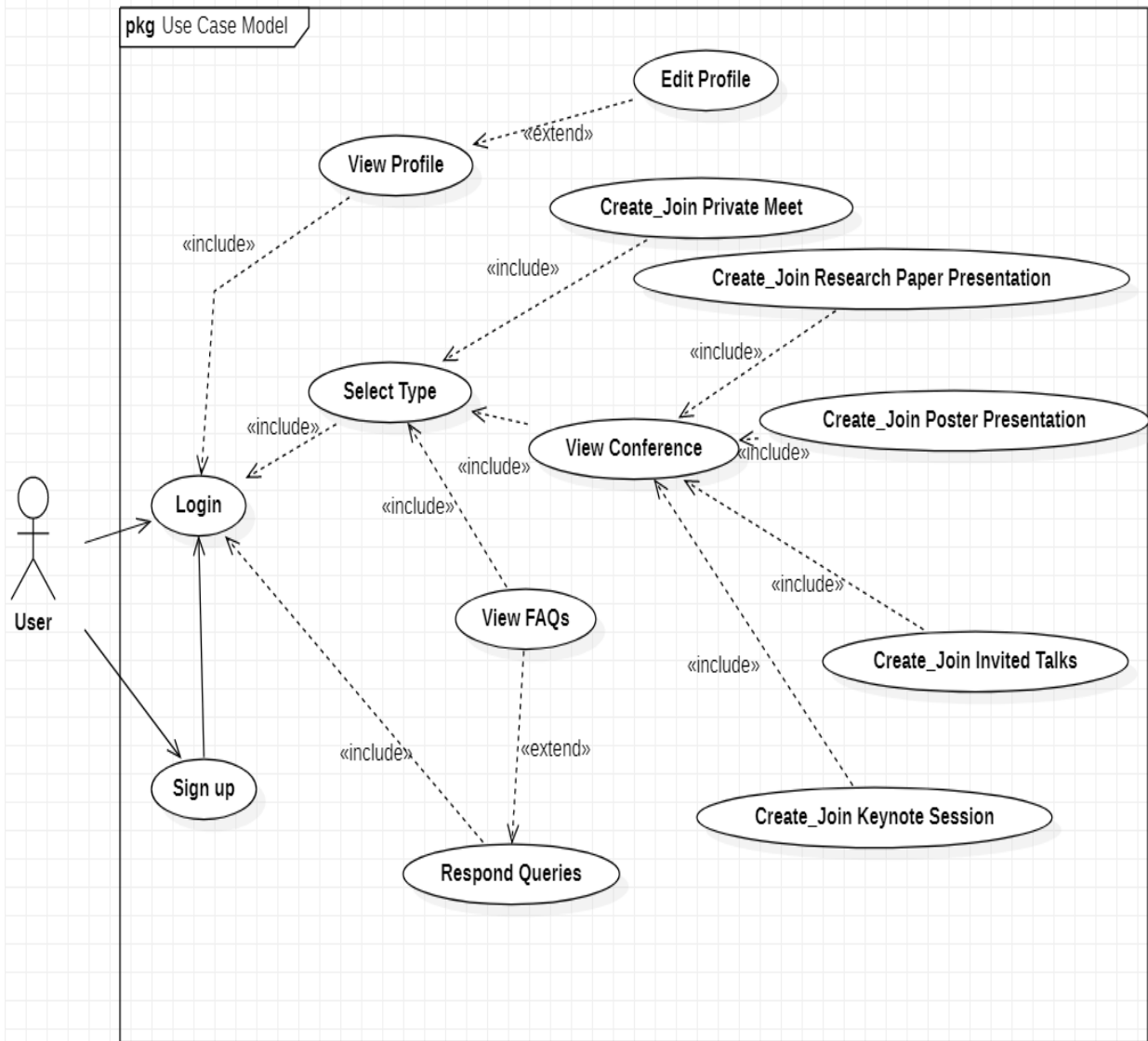## 2.4 **Principal Actors:** There is one principal actor, "User".

2.5 **General Constraints:**

    a. Working requires an Internet connection.
    b. It is a single-user Application. Every user must have an account on this website.
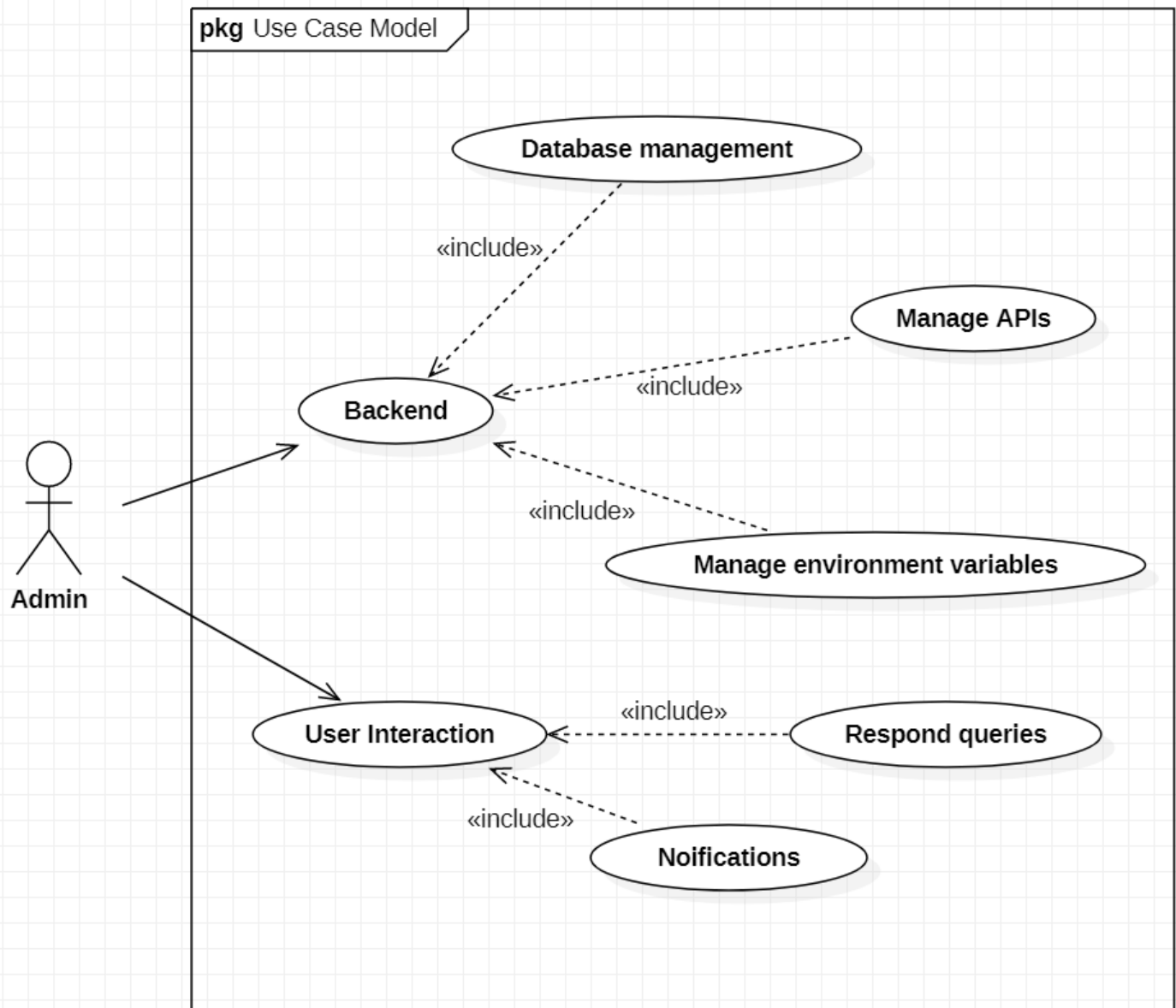
2.6 Assumptions and Dependencies:

a. Working is dependent on the availability of Internet connection.
b. Host must be active to host a conference and insert all the required information related to conference FAQs .

USE CASE DIAGRAM

< Note: As our project majorly focusses on front-end, but we have thought of some backend functionalities and will implement them only if time permits >

3. Specific Requirements:

3.1 Functional Requirements:

We describe the functional requirements by giving various use cases.

Use Case 1:

Name: User Login

Summary: Allows User to login.

Actors: User.

Prerequisites:

- Internet connectivity.
- Only for allowed mail ids. You have to register first if not registered.

Main success scenario:

- The user/admin clicks on the login button.
- Application checks for the authorization of login.

Extension:

Id or password incorrect. If incorrect password shows an error dialog box.

Post-condition:

Users can now access the dashboard which consists of all the features.

Use Case 2:

Name: User SignUp

Summary: Allows first time users to SignUp and register.

Actors: Users.

Prerequisites:

- Internet connectivity.

Main success scenario:

- The user clicks on the SignUp Button
- Application provides a registration form and stores User's data.

Extension:

Provides a registration form to take User's personal details.

Post-condition:

Users can now login to avail different features.

Use Case 3:

Name: Profile

Summary: Shows personal details used at the time of registration and the number of events and conferences coming up.

Actors: Users.

Prerequisites:

- Internet connectivity.
- Users must be logged in.

Main success scenario:

- The user clicks on the Profile button in the dashboard.
- Users can view all their data.

Extension:

N/A

Post-condition:

Users can view all their personal details and conference schedule.

Use Case 4:

Name: Edit Profile

Summary: Allows the user to edit their personal details, update/remove profile picture.

Actors: Users.

Prerequisites:

- Internet connectivity.
- Users must be logged in.

Main success scenario:

- The user clicks on the Edit Profile button present inside the Profile tab.
- Users can update all their data.

Extension:

The change will be reflected in the database and by extension in the profile tab.

Post-condition:

Users can change their personal details.

Use Case 5:

Name: New Space

Summary: Allows the user to create new meetings and set the details for the particular meeting

Actors: Users.

Prerequisites:

- Internet connectivity.
- Users must be logged in.

Main success scenario:

- The user can create new meetings, update meeting info,

participation details.

- Users can set an upper limit to the number of participants for the meeting.
- Users can update details for the meeting.

Extension:

The new meeting created will be categorized into 3 categories (Conferences, keynote Sessions and Private Meeting) and will be displayed in the appropriate tab.

Post-condition:

Users can create meet and then view details of different meets.

Use Case 6:

Name: Private Meeting

Summary: Creates a meeting with limited access. Can be shared with family and friends for personal meetings.

Actors: User.

Prerequisites:

- Internet connectivity.
- Only accessed by authorized users.

Main success scenario:

- The meeting code is generated and sent to the host.
- Invite others with meeting code.

Extension:

N/A

Post-condition:

Users can join the meeting with the code.

Use Case 7:

Name: Conferences

Summary: Can create public conferences which are displayed in the conferences section.

Actors: User.

Prerequisites:

- Internet connectivity.
- Only accessed by authorized users.

Main success scenario:

- The user can register for a particular conference.
- The registered conference will be displayed on profile section

Extension:

User will be able to create a conference for different purposes like Research Paper Presentation, Invited Talks, Keynote Sessions, Poster Presentations etc

Post-condition:

Users can now create and access the details of all the conferences.

Use Case 8:

Name: View FAQ

Summary: Users can ask questions or queries about the event.

Actors: Users/Host.

Prerequisites:

- Internet connectivity.
- Users must be logged in.

Main success scenario:

- The user will click on the FAQ tab.
- The user can browse to a desired question about a particular event.
- The user can ask questions about the event.

Extension:

To get a result, there must be either the same or the related question for the user query.

Post-condition:

The user will remain up to date about the event.

Use Case 9:

Name: Respond Queries

Summary: Different Participants can answer different questions posted by other users.

Actors: Users/Host.

Prerequisites:

- Internet connectivity.
- Users must be logged in.
- Users must be registered to a particular event.

Main success scenario:

- The user will receive a notification that the meeting is about to start.
- The joining code will also be sent a certain time before the meeting.
- Users will receive a reminder about the event.

Extension:

N/A

Post-condition:

N/A

Use Case 10:

Name: Notifications

Summary: User will get a notification for it's registered events a certain time before the event is about to start

Actors: Users.

Prerequisites:

- Internet connectivity.
- Users must be logged in.
- Users must be registered or invited to a particular event.

Main success scenario:

- The user will receive a notification that the meeting is about to start.
- The joining code will also be sent a certain time before the meeting.
- Users will receive a reminder about the event.

Extension:

We can provide reminders to the user using extensions.

Post-condition:

When registered for a particular event, the user will get a reminder about the event a certain time before the event.

Use Case 11 (Admin):

Name: Backend

Summary: The responsibility of the admin is to manage the database of the users as well as authenticate them.

Actors: Admin

Prerequisites:

- Internet connectivity.
- Access of all the environment variables and passwords.

Main success scenario:

- Able to resolve bugs and issues.
- Improving user interface and experience.

Use Case 12 (Admin):

Name: User Interaction

Summary: Send notifications to all users about the website and new updates. Respond to users' queries and take feedback.

Actors: Admin

Prerequisites:

- Internet connectivity.
- Access of all the environment variables and passwords.

Main success scenario:

- Respond to user queries and improve overall experience.

< Note: As our project majorly focusses on front-end, but we have thought of some backend functionalities and will implement them only if time permits >

3.2 Non- Functional Requirements:

- To create a meet or join any meet, you have to be logged in.

- There is a limit of max 500 seats available for any conference.

- The user has to specify the number of seats required at the time of creation of a conference/ keynote session.

- In order to create a public conference you need to upload a document of the schedule of all the events on the website.

- For creating a private conference the creator must specify the members who must be invited for the conference so that the invitation link will go to those selected members only.

3.3 Hardware requirements :

Can run on any browser both on Mobile and PC devices.

3.4 Software requirements:

Supported on web browsers Chrome v51, Firefox v52, Edge v14, Safari v10, Opera v38 and above.

3.5 Design Constraints:

Currently our web application lacks the feature of conference specific chat option rather we have a common FAQ section.However if time permits we shall improvise on this and may add a conference specific Q/A section.

3.6 Tech Stack:

The tech stack that we are using is react and firebase.The purpose of using React is that it's a javascript library which makes our work easier and helps to build complex user interfaces. Firebase provides the quickest integration of a real time backend into the react application. It is easy to use and provides various methods to authenticate users that includes email and password.Additionally methods are available to authenticate third party providers like google.