SOFTWARE ENGINEERING

Software Design Specification

International Conference Management
(Frontend)

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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.

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. Why do we need this application?

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.

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 conferences are also more efficient because it helps them to reach out to a large audience thus increasing the involvement of individuals all around the world bringing up a 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.

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.

2. Conceptual Architecture/Architecture Diagram

An architecture is a textual or visual overview that describes the components of a system and their relationships. Consider it similar to a home's floor layout. It depicts the locations of the walls, windows, and doors,

as well as their spatial relationships. The information in an architecture is presented at a high level, which means it does not include all of the specifics required to build the system described. Rather, it supplies enough information to allow for a basic understanding and additional conversation. As a result, in the field of system design, architecture is frequently used.

The formal name for the pictorial representation of the system architecture is a conceptual architecture diagram. It's a drawing, representation, or map that visually depicts the specifics of the system in issue at a high level. It is made up of various blocks that depict the components, as well as a number of lines, often with arrows, that show how they interact. Its goal is to convey information that is difficult to convey through words alone. Consider them similar to every other street map you've ever seen. They show key structures, points of interest, and the roads that connect them. In the next sections, we'll look at a couple of real-life examples.

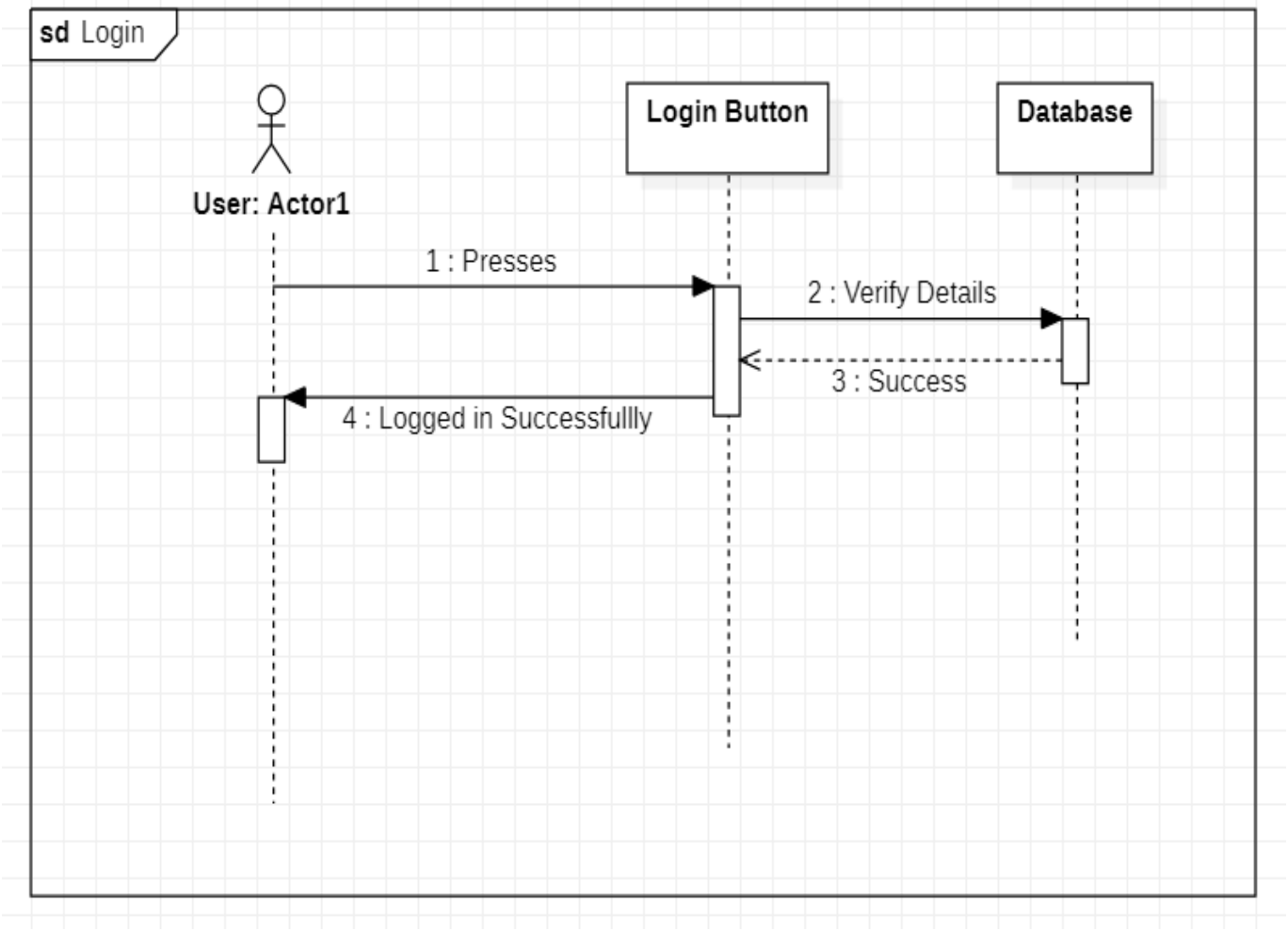
3. Logical Architecture (Sequence Diagram, State Diagram)

Sequence Diagrams:

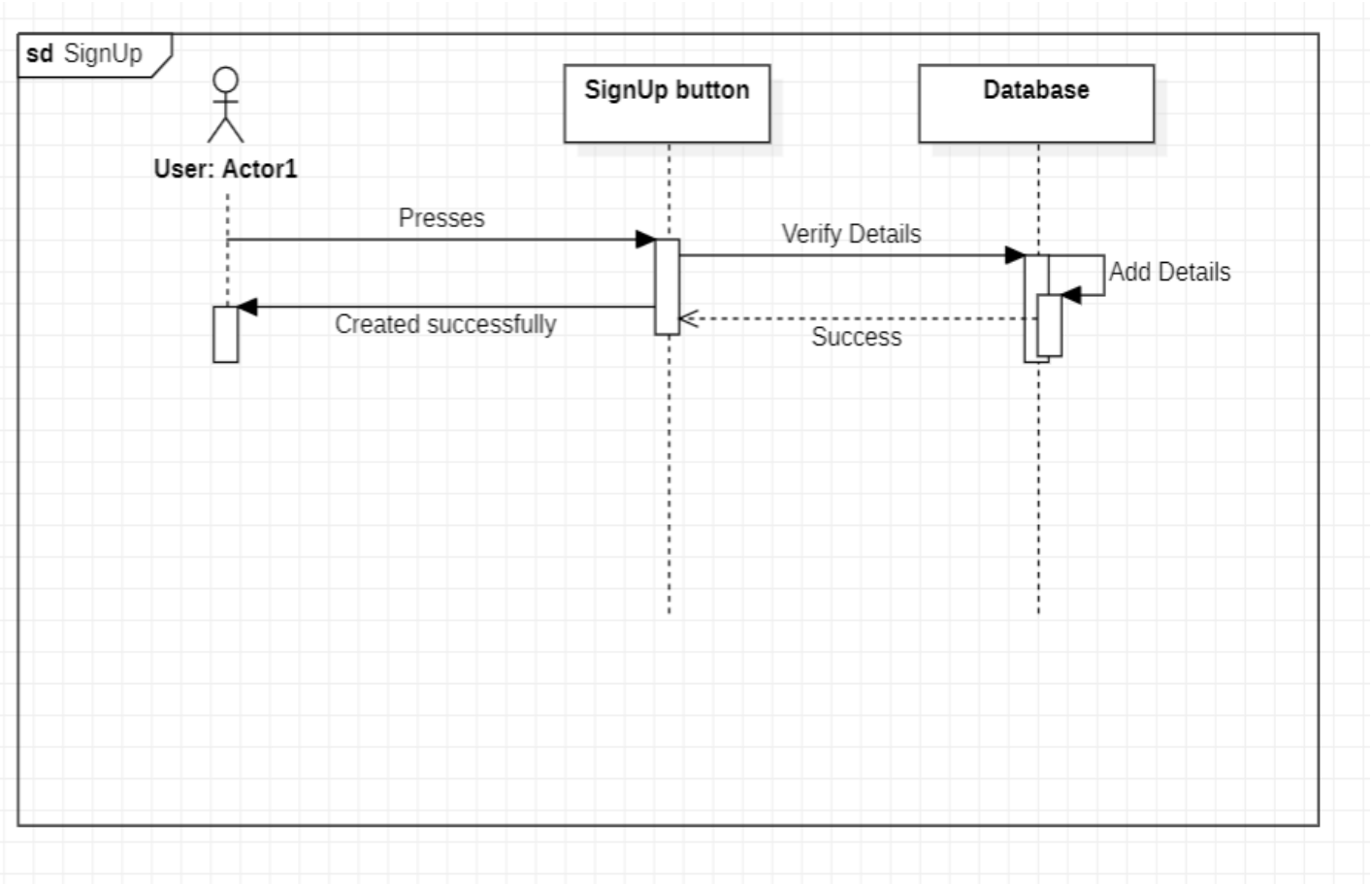
A sequence diagram is a type of interaction diagram that depicts the interaction of a group of items as well as their relationships. The Sequence diagram is used to document the order in which messages are sent between objects in a time-based view. A typical sequence diagram's scope encompasses all message interactions for (parts of) a single use case. Each use case may include numerous sequence diagrams, one for each use case scenario.

The objects in sequence diagrams are based on the class diagram from the software architecture view. The rationale for this is that we don't want to linger in the object construction view, where object functions are ambiguous and inadequate, nor do we want to venture too far into the system architecture view, where many technical intricacies hinder a quick comprehension of object interaction.The state diagrams commonly contain:

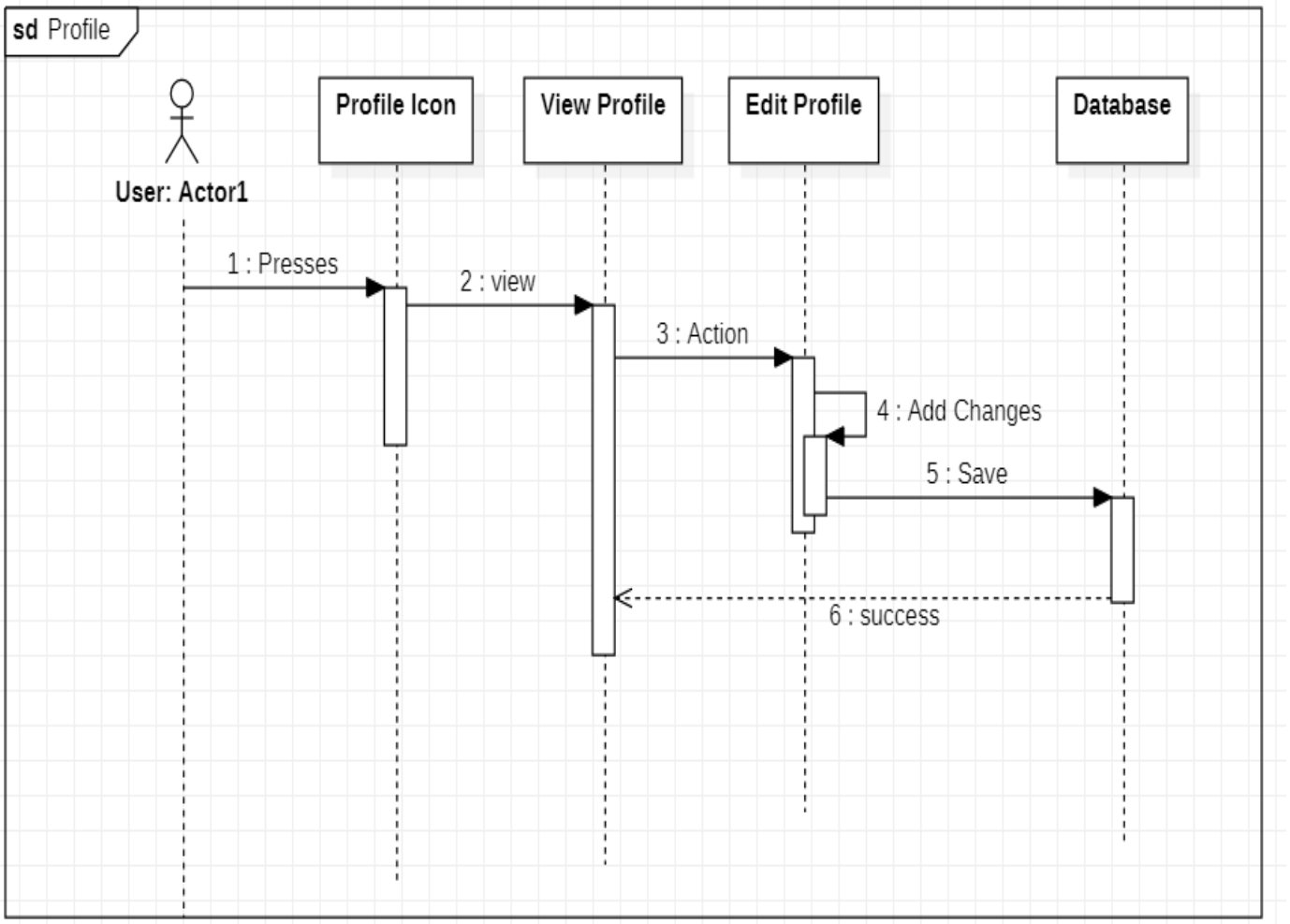
- Objects
- Messages
- Links
- Response Time (especially useful in real-time systems)



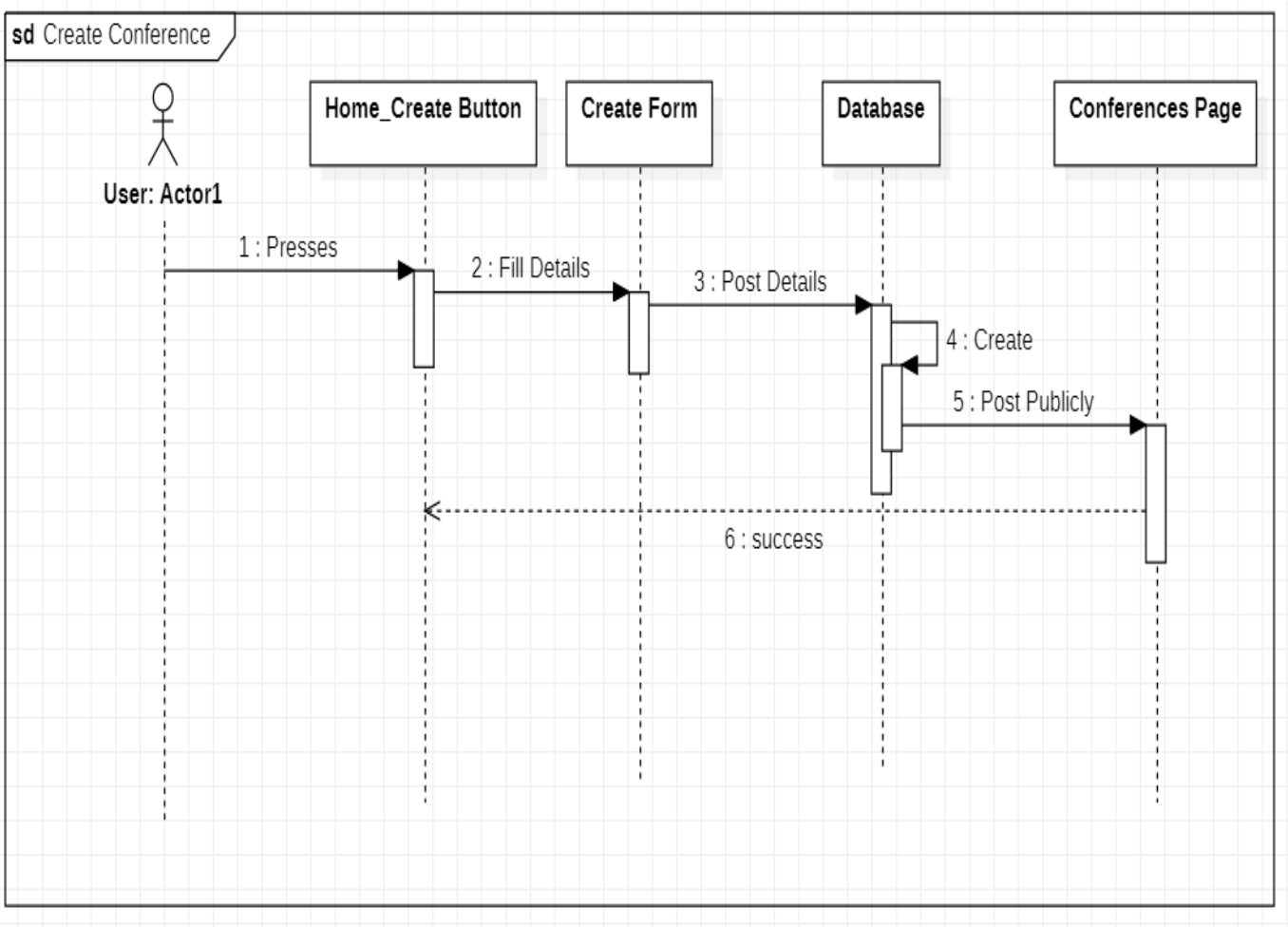
The user will press the Login Button which in turn will verify the details from the database. If the provided credentials are correct, then we will receive a success message which will allow us to login and then in turn access the dashboard.



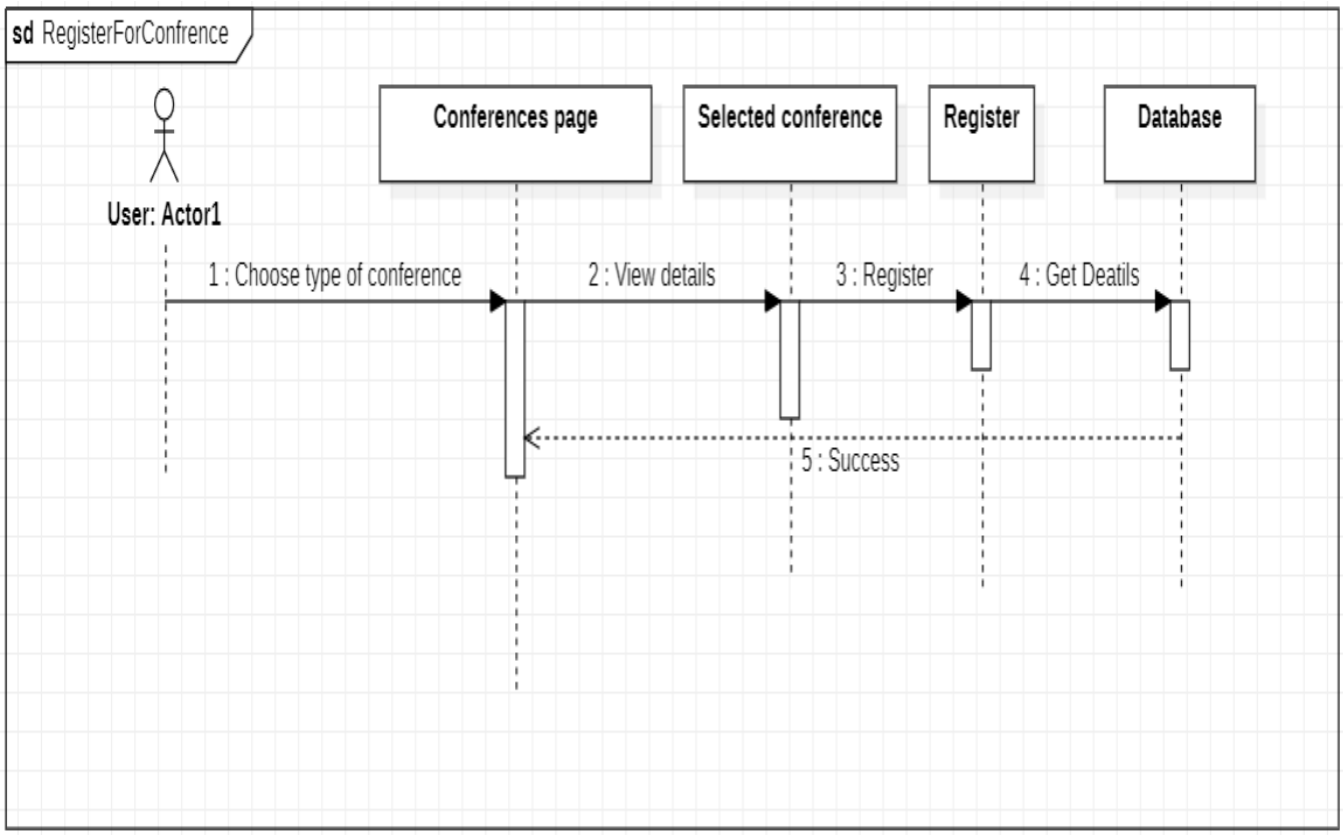
When a new user comes, he will have to first sign up and then only he will have access to the features of the website. Here the user will press the Sign Up option which in turn will allow the user to fill up a form with all the details of the user. Then the details will be verified and then in turn added to the database. Once the user has registered, he will be taken back to the login page where he will have the option to then login and access the features of the website.



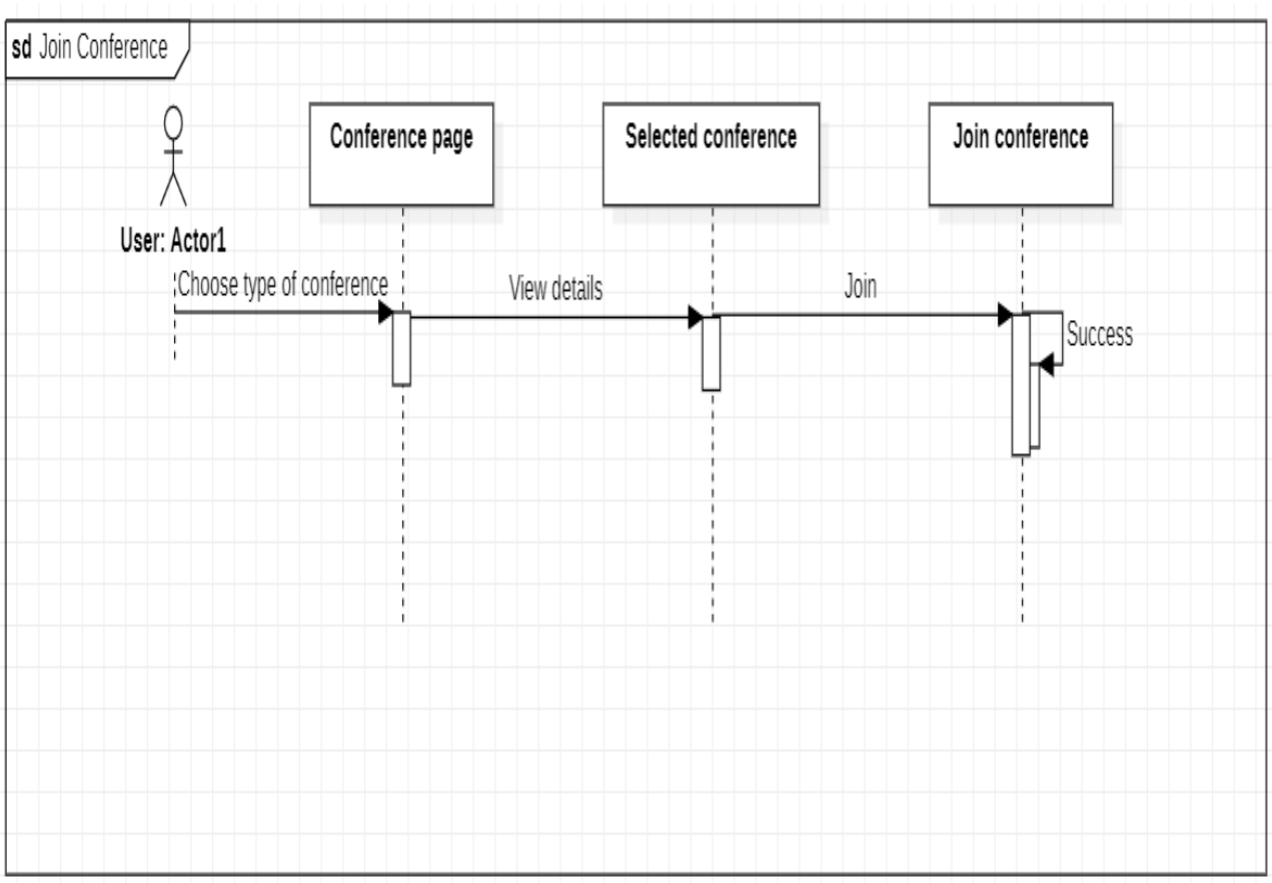
Once logged in, the user will have access to the dashboard, where we will have the options to edit profile, view profile. Once the user decides what to do, he will have to press the corresponding option, like if the user wants to edit profile, he will have to press the edit profile button. He will receive a form to edit the profile details which then will be updated in the database.



After logging in, the user will have the option to create a conference. To create the conference, the user will have to click on the Create Conference button, then he will have to choose the type of conference he wants to create, then he will fill in all the details of the conference like the type of conference, the details about the speaker, the schedule and different details of the conference. Then the user will have the option whether he wants to make the conference public or not,if he makes the conference public, then the conference will be shown in respective tabs , if not then the creator can invite specific people only.



If the user wants to join any public conference, then he will have to first register for the conference as the number of seats will be fixed for a particular conference. To register for a conference, first the user will have to click on the register button which will decrease the seats available from the database.

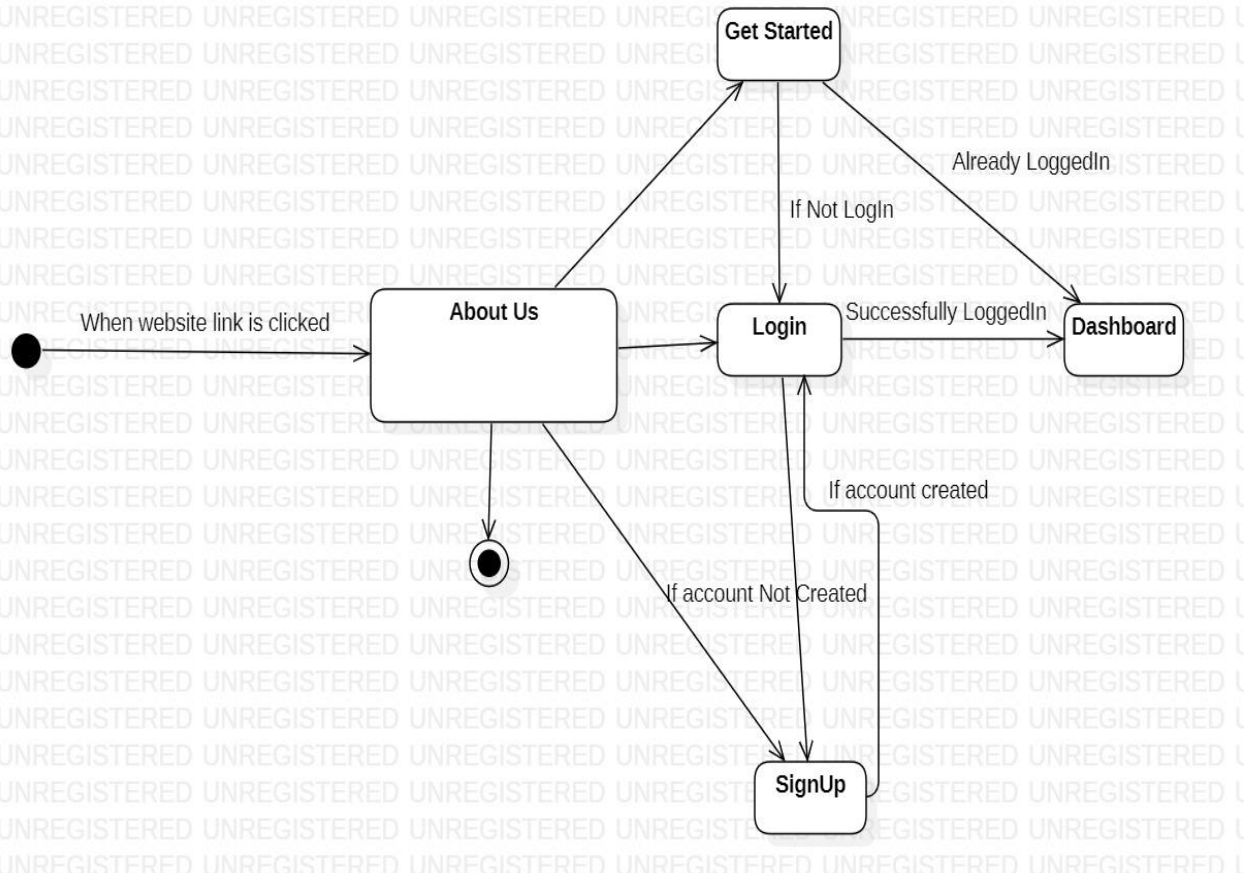


Then the user will be able to join the conference. To join the conference, the user will have to be first registered for the conference. Once registered, the Join meeting button will be activated and the user will have the option to joi the meeting.

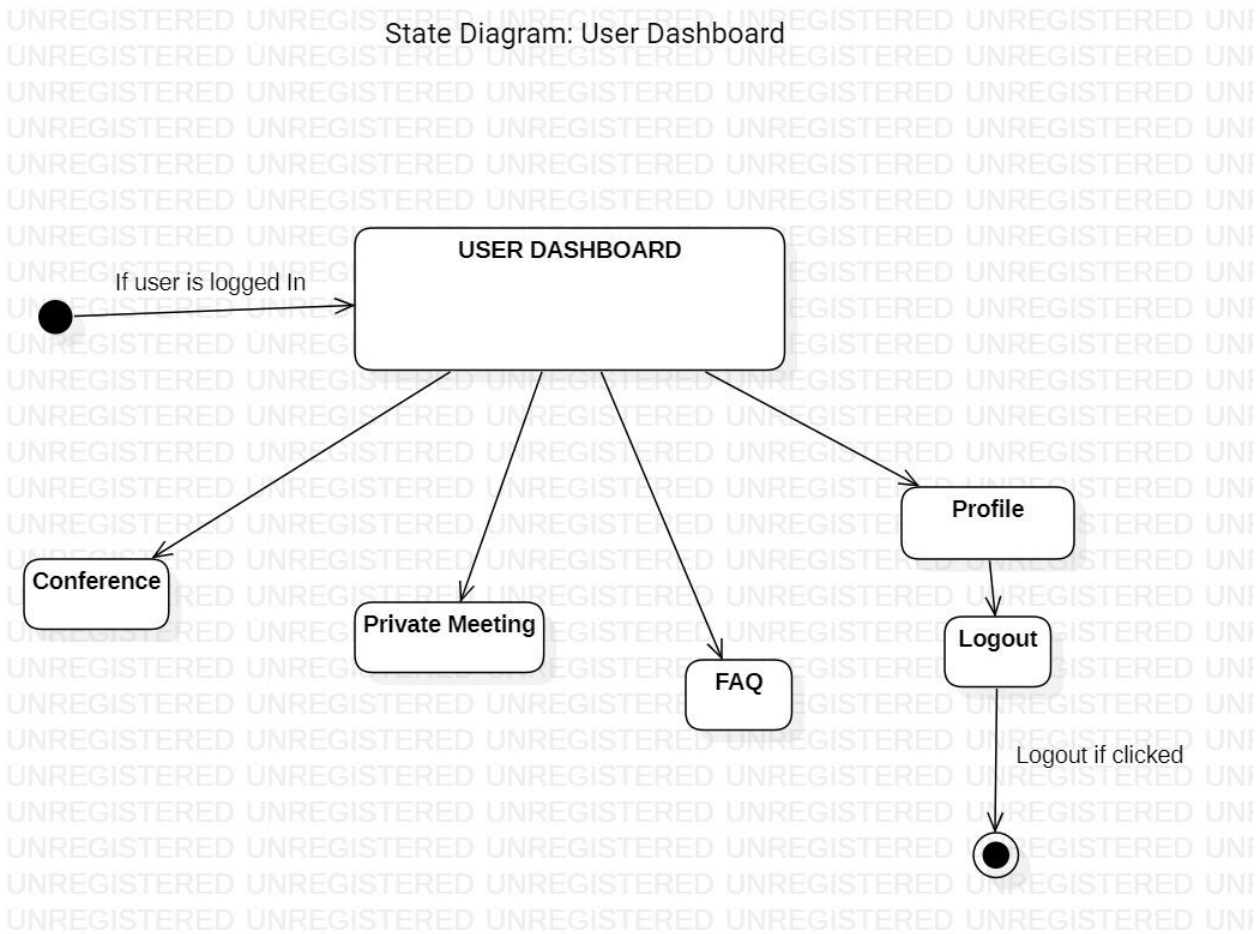
State Diagrams:

A state machine is depicted in a state chart diagram. The state machine in a state chart usually represents the behavior of a reactive object, whose behavior is best described by its response to events that occur outside of its environment. The thing has a defined lifespan, and its current behavior is influenced by its history. State chart diagrams are essential for forward and reverse engineering to create executable systems.

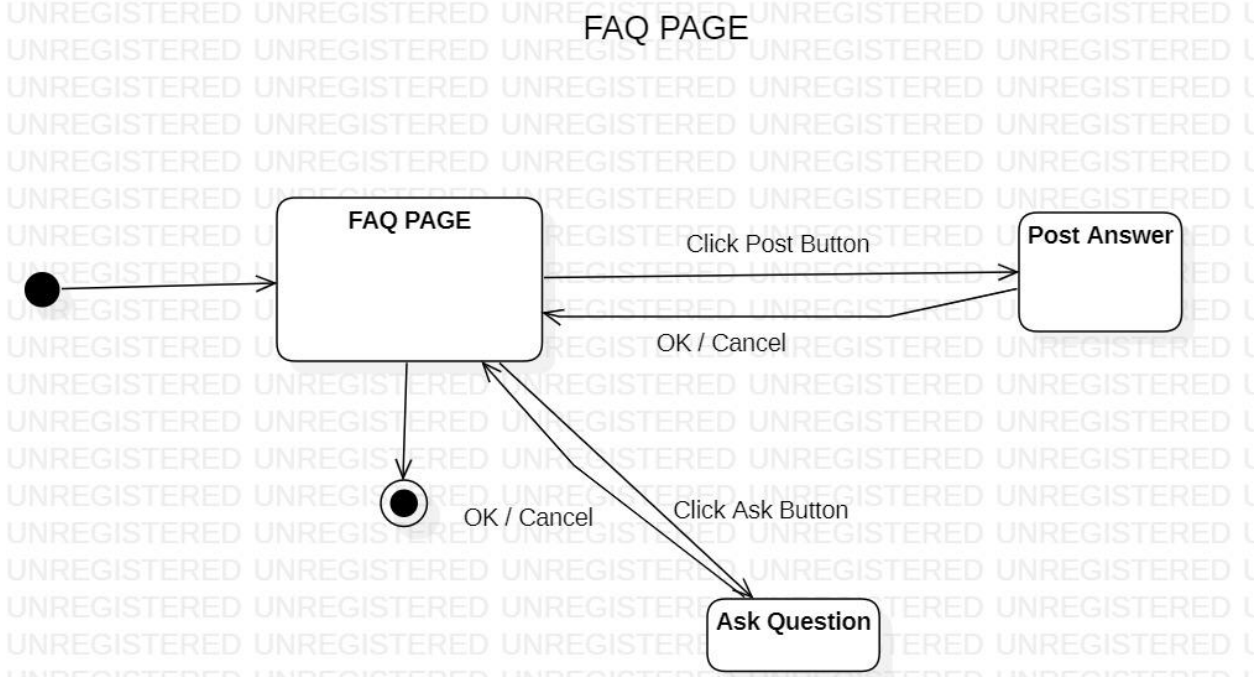
State diagram: User Landing Page



State diagram: User Dashboard



State diagram: FAQ Page



4. Execution Architecture

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