Build a web site for representing international conferences and submission on them

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1 Introduction

National and international scientific conferences are an important event for universities and researchers from different parts of the world, so it is necessary to facilitate the process of publishing and accessing these conferences.

1.1 Problematic

Most or all universities of the world are publishing their conferences in custom web pages for each one, or they collect them in one website like 10times.com and ieee.org. Meanwhile any scholar how want to publish his paper or submit in a conference, he utilize another different website like easychair.org. Our work is related to finding a solution to the problem raised by answering the following questions:

- Why not they all publish everything from conferences to papers in one place ?

- How to let scholars and universities contact with each other from one place ?

- What is the best solution for this problem and how to achieve that ?

1.2 Hypotheses

Among the proposed solutions, we find that one of them relies on creating a website for publishing conferences and requesting registration in them, where the person in charge of the conference (university or organization) publishes the necessary information about the conference such as its name, date, and participation price... while any researcher or student can request to participate in it, as he sends his research to the officials in charge of the conference and is waiting for it to be accepted by them.

1.3 Article structure

This article contains the following chapters:

- **Presentation of the project frameworks :** Chapter to figure out the problem and its solution in details.

- **Analysis and design *(UML)* :** Chapter to introduce the *UML* diagrams that we used to analysis the project and figure out his functions.

- **The implementation :** Chapter to view the technologies that we used in making the site, and the implementation of our site (pictures from the website itself).

2 Presentation of the project frameworks

2.1 What

2.2 Why ?

The main problem is that there is no website to represent a conference and let scholars submit in it at the same time, so the conference is in a separated website like ieee.org or in a specific domain like icrami.faox.dk. Meanwhile the scholar publish his paper in another website like easychair.org.

Another problem is that Algeria haven't any platform to let it's universities publish their conferences on it.

2.3 How ?

3 Analysis and design (UML)

We have utilized the following graphs: class, use cases and sequence diagram of each process in our website.

3.1 Class Diagram

In Figure 1 we diagram to introduce classes of the project and their associations with each others.

3.2 Use case Diagram

In Figure 2 we diagram to introduce what can every actor do in this project.

3.3 Sequence Diagrams

diagrams to figure out how each process is working behind the scene.

3.3.1 For login

In Figure 3 we have how the user can login

3.3.2 For register

In Figure 4 we have how to register as a new user

3.3.3 For create user

In Figure 5 we have how to create new user

3.3.4 For update user

In Figure 6 we have how to update user information

3.3.5 For delete user

In Figure 7 we have how to delete a user from the data base

3.3.6 For create conference

In Figure 8 we have how to create new user

3.3.7 For update conference

In Figure 9 we have how to update user information

3.3.8 For delete conference

In Figure 10 we have how to delete a user from the data base

3.3.9   For create submission

In Figure 11 we have how to create new user

3.3.10   For update submission

In Figure 12 we have how to update user information

3.3.11   For delete submission

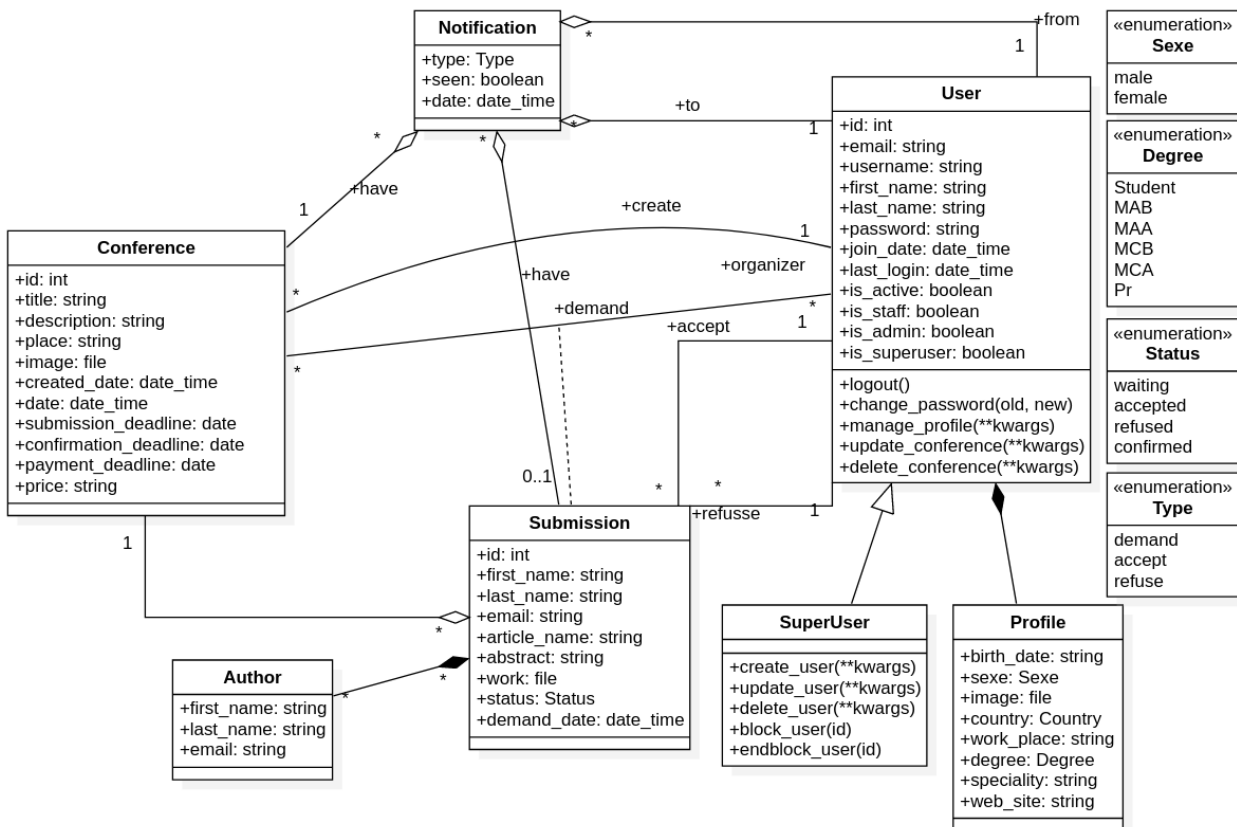In Figure 13 we have how to delete a user from the data base

Notification
+type: Type
+seen: boolean
+date: date_time

Conference
+id: int
+title: string
+description: string
+place: string
+image: file
+created_date: date_time
+date: date_time
+submission_deadline: date
+confirmation_deadline: date
+payment_deadline: date
+price: string

User
+id: int
+email: string
+username: string
+first_name: string
+last_name: string
+password: string
+join_date: date_time
+last_login: date_time
+is_active: boolean
+is_staff: boolean
+is_admin: boolean
+is_superuser: boolean

+logout()
+change_password(old, new)
+manage_profile(**kwargs)
+update_conference(**kwargs)
+delete_conference(**kwargs)

Submission
+id: int
+first_name: string
+last_name: string
+email: string
+article_name: string
+abstract: string
+work: file
+status: Status
+demand_date: date_time

Author
+first_name: string
+last_name: string
+email: string

SuperUser
+create_user(**kwargs)
+update_user(**kwargs)
+delete_user(**kwargs)
+block_user(id)
+endblock_user(id)

Profile
+birth_date: string
+sexe: Sexe
+image: file
+country: Country
+work_place: string
+degree: Degree
+speciality: string
+web_site: string

«enumeration»
Sexe
male
female

«enumeration»
Degree
Student
MAB
MAA
MCB
MCA
Pr

«enumeration»
Status
waiting
accepted
refused
confirmed

«enumeration»
Type
demand
accept
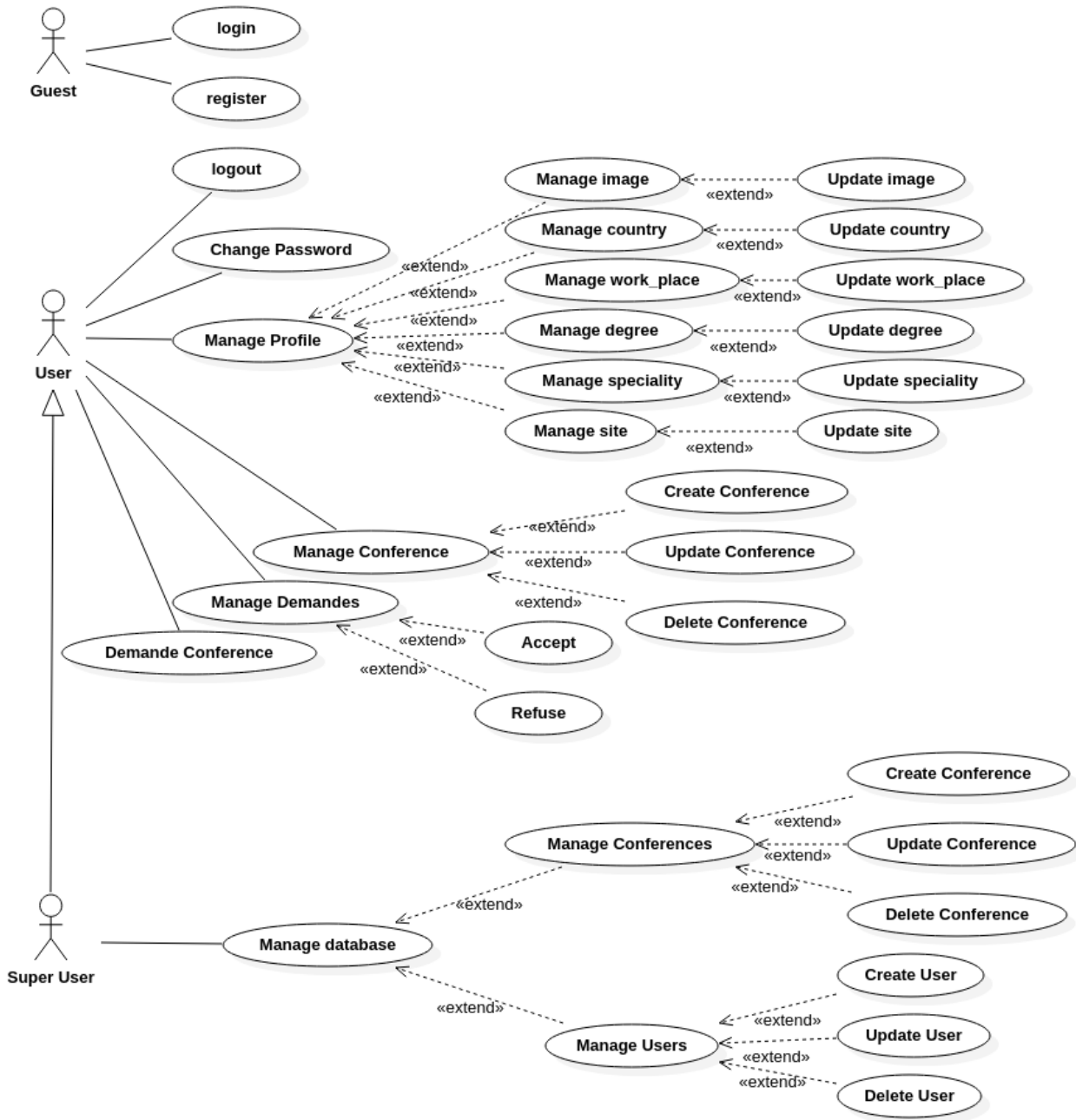refuse

Figure 1: class diagram

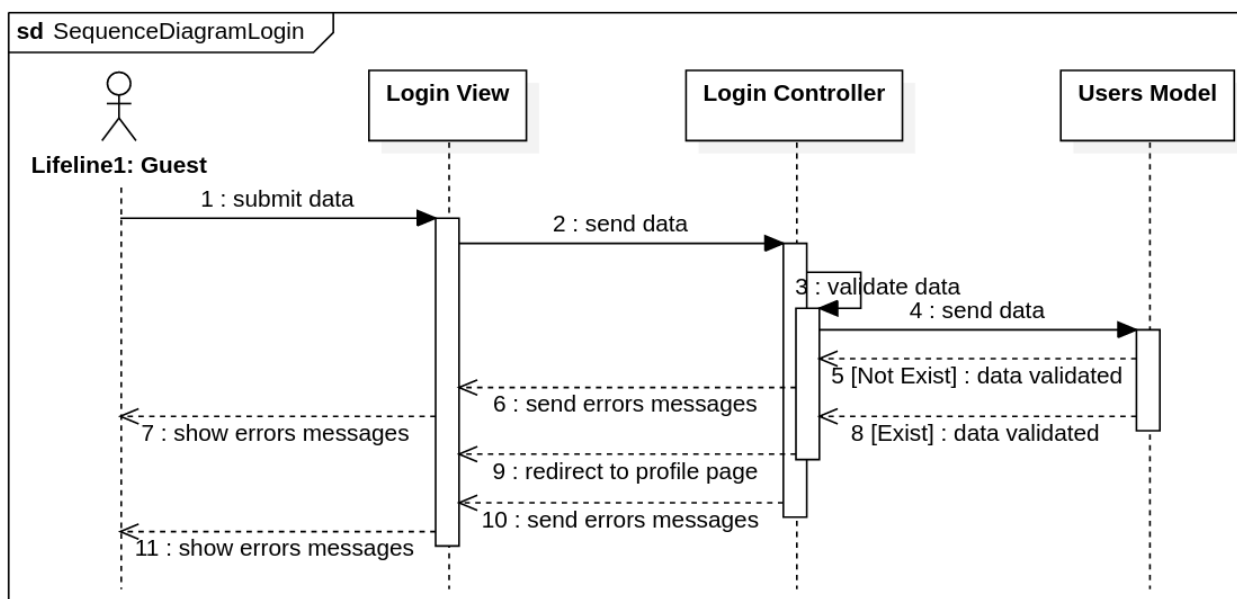Figure 2: use case diagram

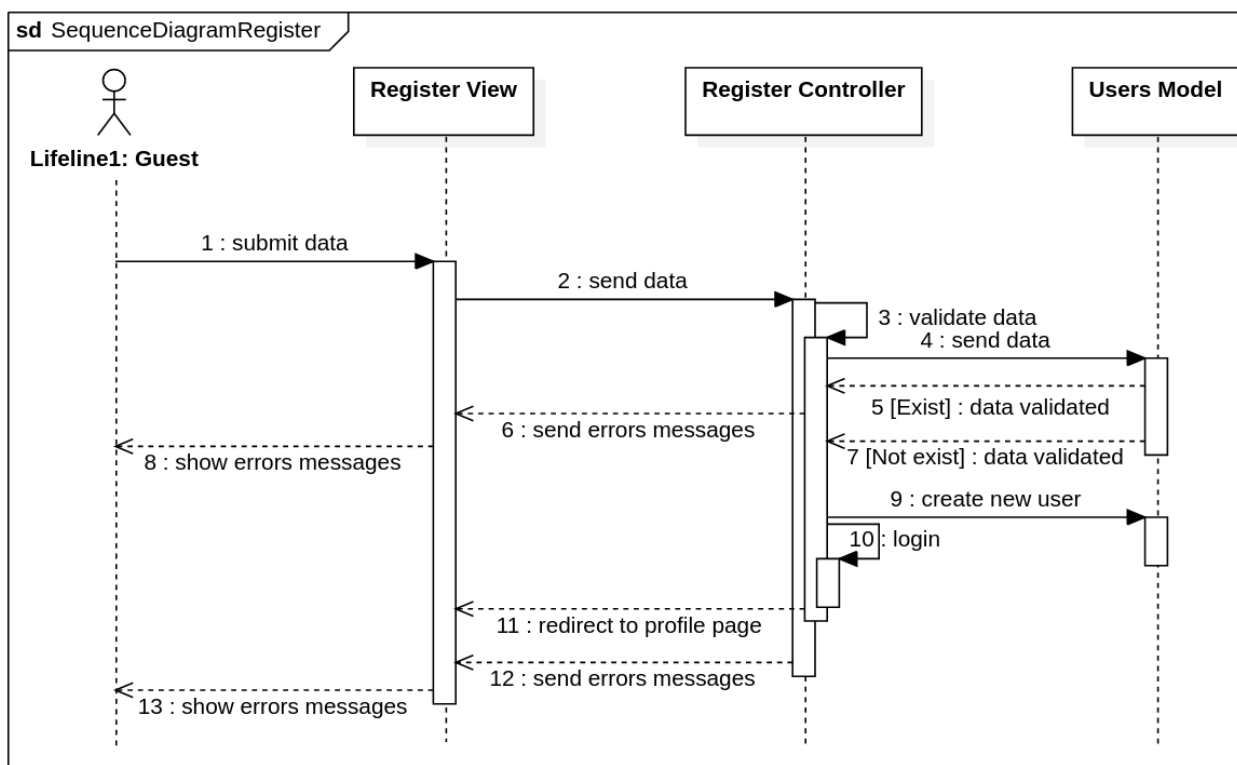Figure 3: login sequence diagram
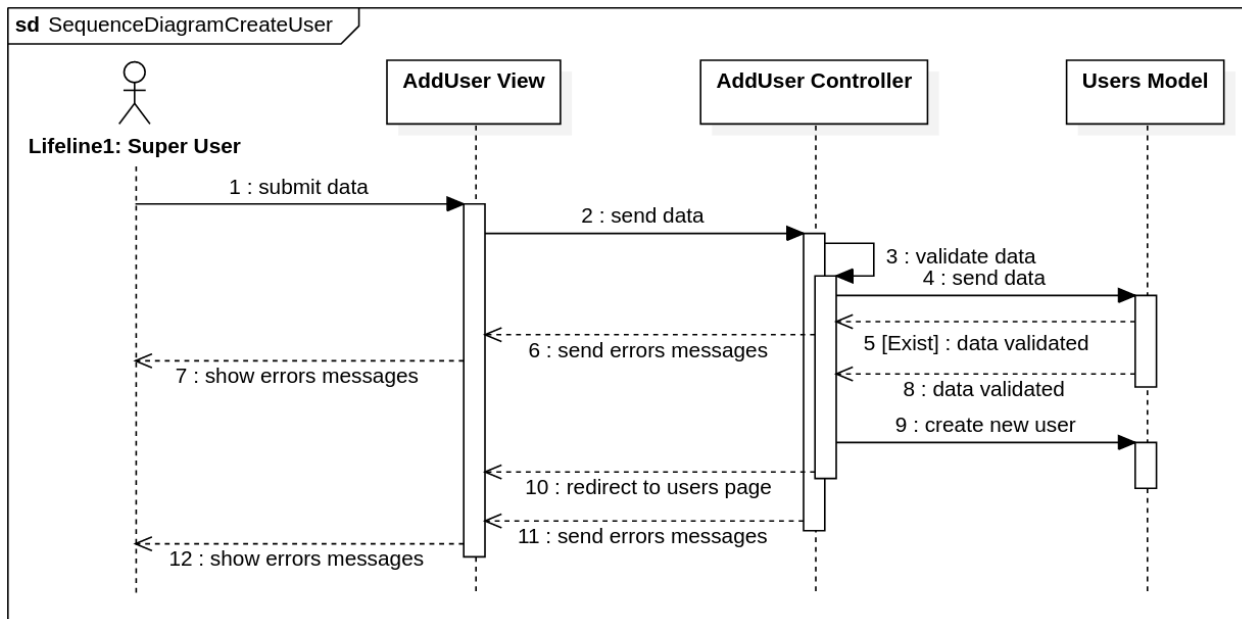

Figure 4: register sequence diagram
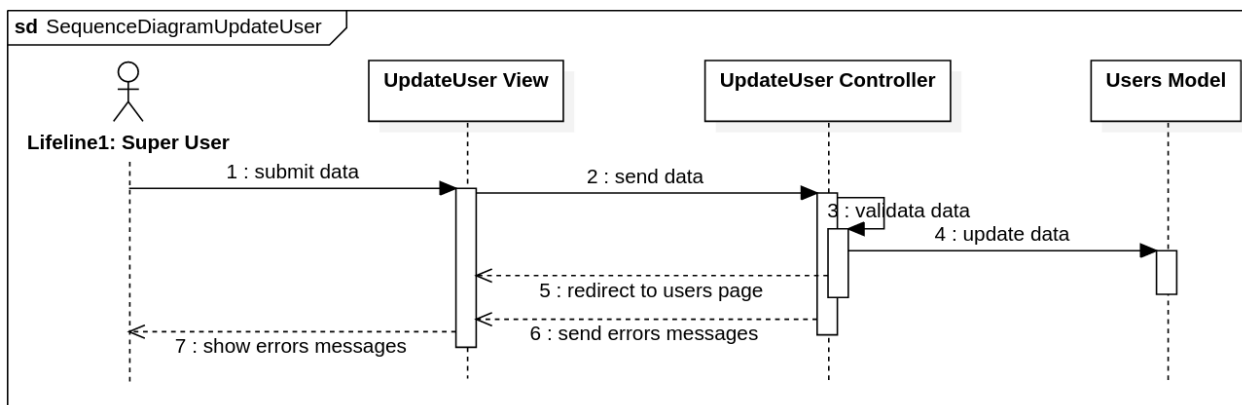
Figure 5: create user sequence diagram

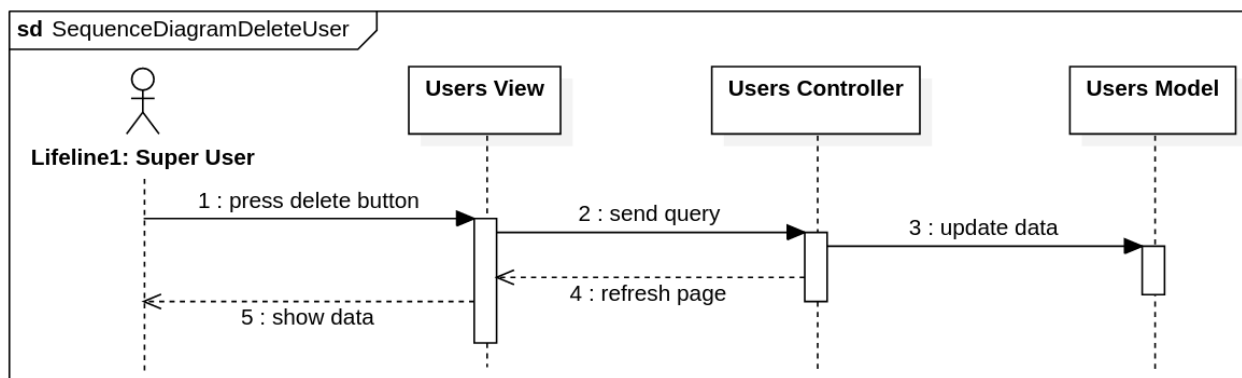Figure 6: update user sequence diagram
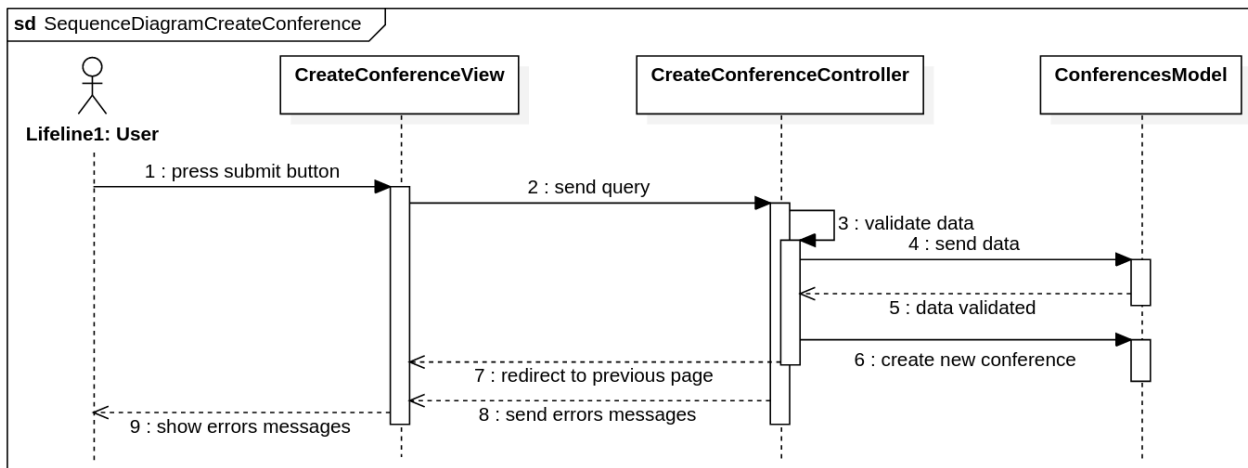

Figure 7: delete sequence diagram

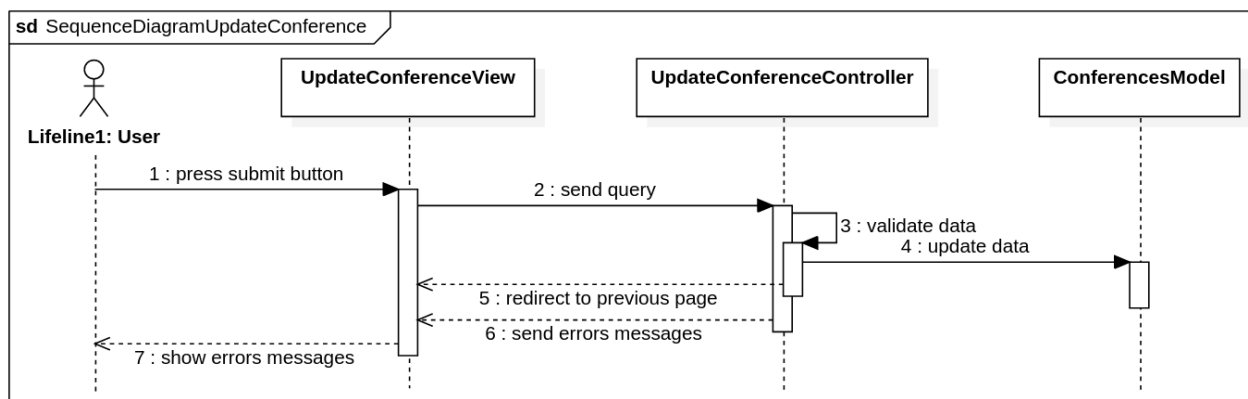Figure 8: create user sequence diagram

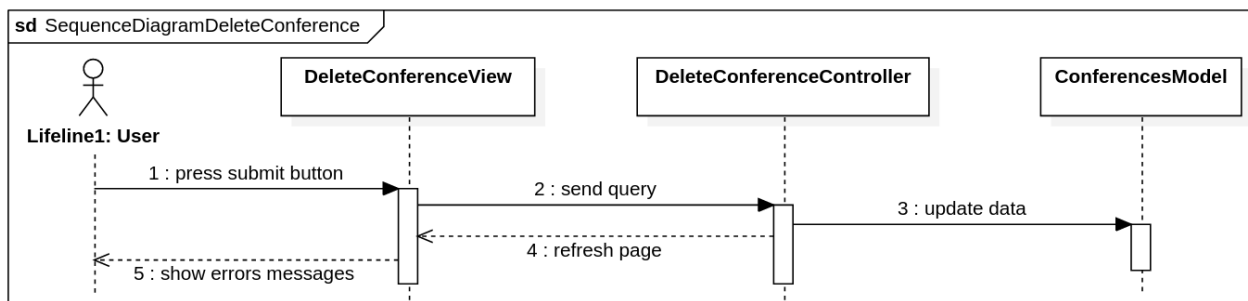Figure 9: update user sequence diagram
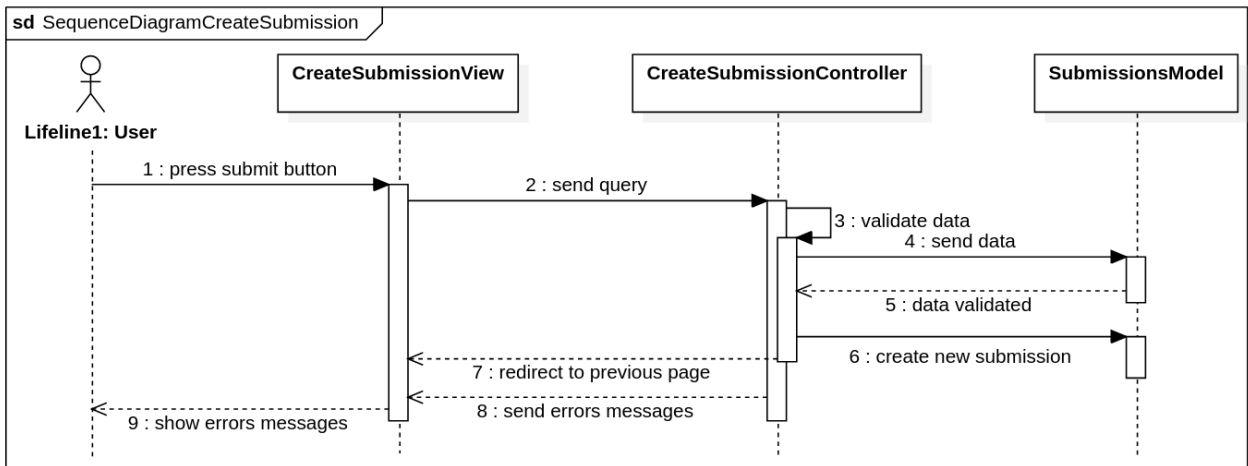

Figure 10: delete sequence diagram
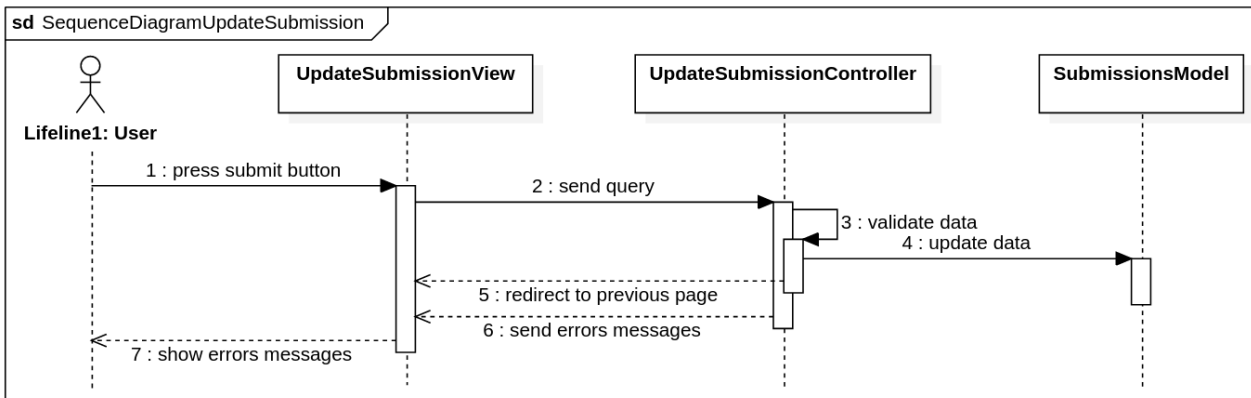
Figure 11: create user sequence diagram

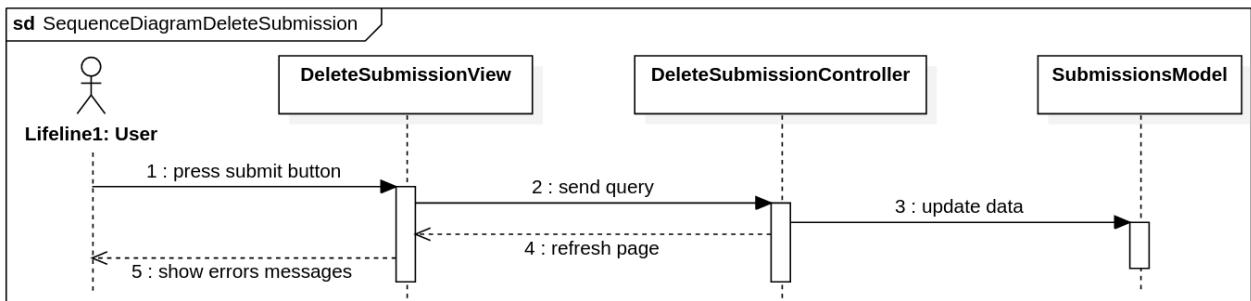Figure 12: update user sequence diagram

Figure 13: delete sequence diagram

4   The implementation

There are many technologies that allow building web applications, and they are divided into two main parts, the front-end part such as HTML, CSS, JS ..., and the back-end part such as PHP, NodeJS ..., in addition to databases, but we will depend in our project on the following:

4.1   Implementation Technologies

4.1.1   For front-end

HTML   HTML (Hyper-Text Markup Language) is the standard mark-up language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.[1]

CSS   Cascading Style Sheets (CSS) is a simple mechanism for adding style (e.g., fonts, colors, spacing) to Web documents.[2]

Bootstrap   The world's most popular front-end open source toolkit, featuring Sass variables and mixins, responsive grid system, extensive prebuilt components, and powerful JavaScript plugins.[5]

4.2   For back-end

4.2.1   Framework

Django Web Framework   Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of Web development, so you can focus on writing your app without needing to reinvent the wheel. It's free and open source.[3]

why django ?

- It's a Python Language.

- Easy to learn.

- Fast and secured.

- Built-in administration interface.

- Framework able to customization.

- large community.

- MVC design pattern.

- Built-in ORM for databases.

- and much more ...

4.2.2 For databases

PostgreSQL PostgreSQL is a powerful, open source object-relational database system with over 30 years of active development that has earned it a strong reputation for reliability, feature robustness, and performance.[4]

5 Conclusion

References

[1] https://en.wikipedia.org/wiki/HTML

[2] https://www.w3.org/Style/CSS/Overview.en.html

[3] https://www.djangoproject.com/

[4] https://www.postgresql.org/

[5] https://getbootstrap.com/