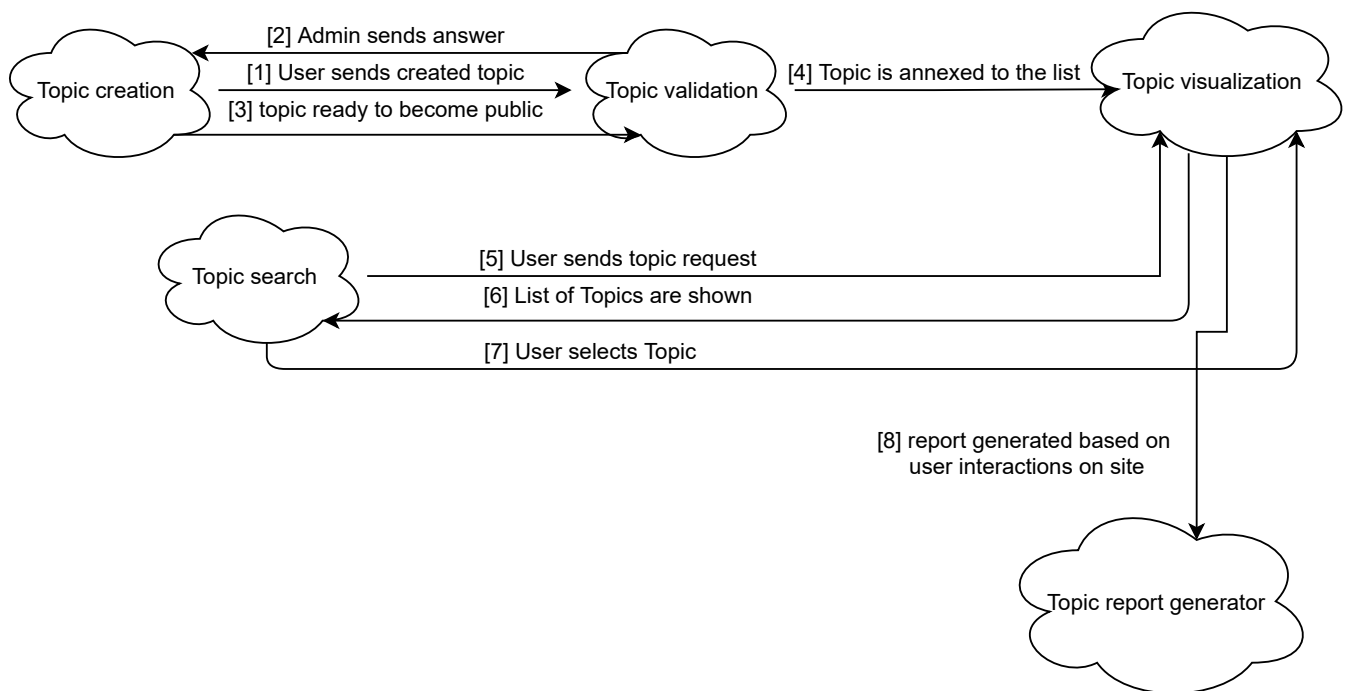# Introduction

A2.2 Learning Activity

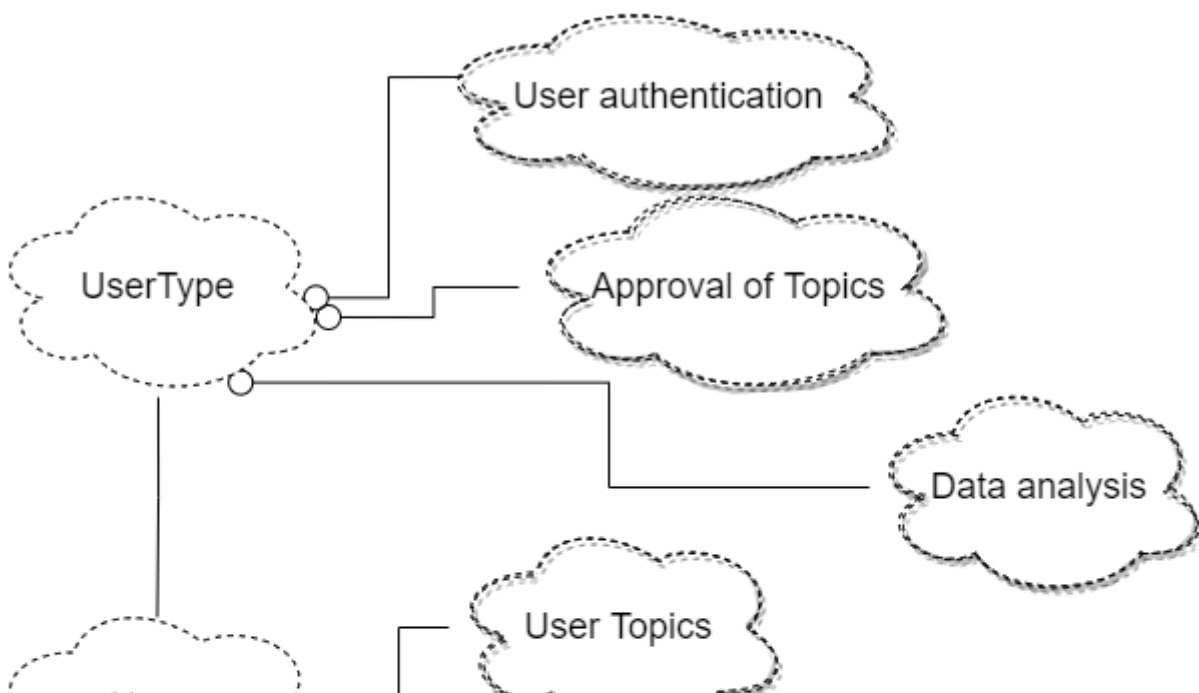- System architecture documentation based on the 4 + 1 model
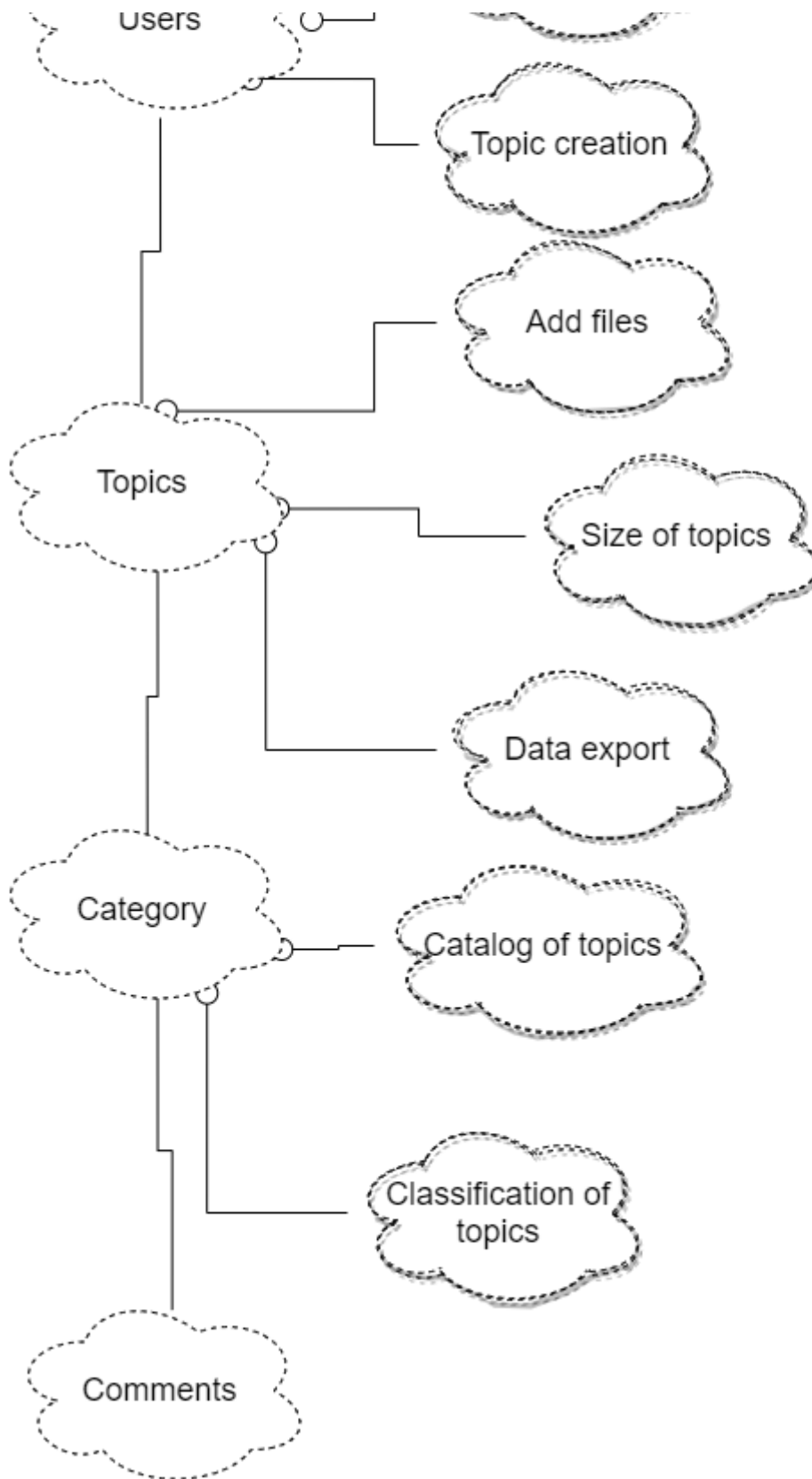
Development

1. Draw the diagrams for each of the views established in the 4 + 1 architecture model.

    - ☑ View of the scenarios: Diagram of user cases

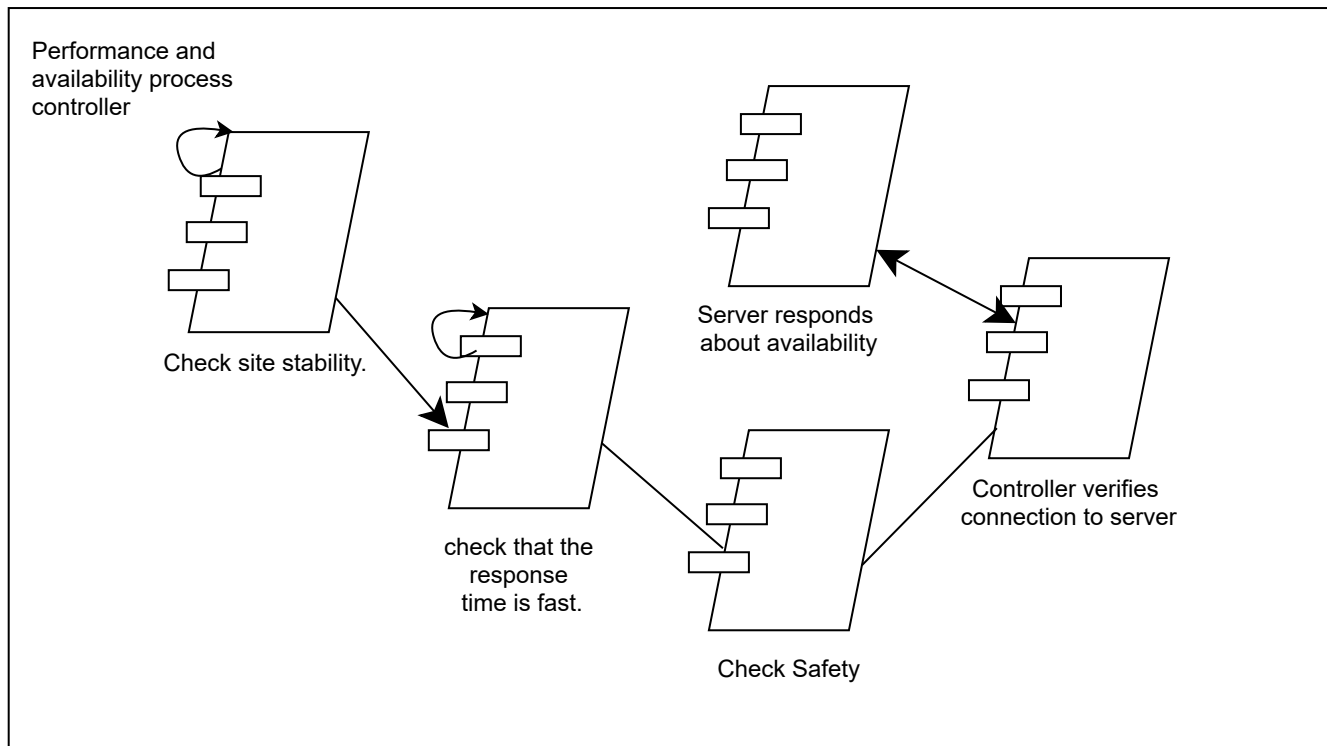- - ☑ Logical view: Class diagram

- o ☑ Process view: Sequence diagram

Performance and availability process controller

Check site stability.

check that the response time is fast.

Server responds about availability

Controller verifies connection to server

Check Safety

- o ☑ Developer view: Component diagram

User roles

User area

Admin area

User panel

Create topic

Recommend topics

Customize topic

Admin panel

Topic validation

Topic reports
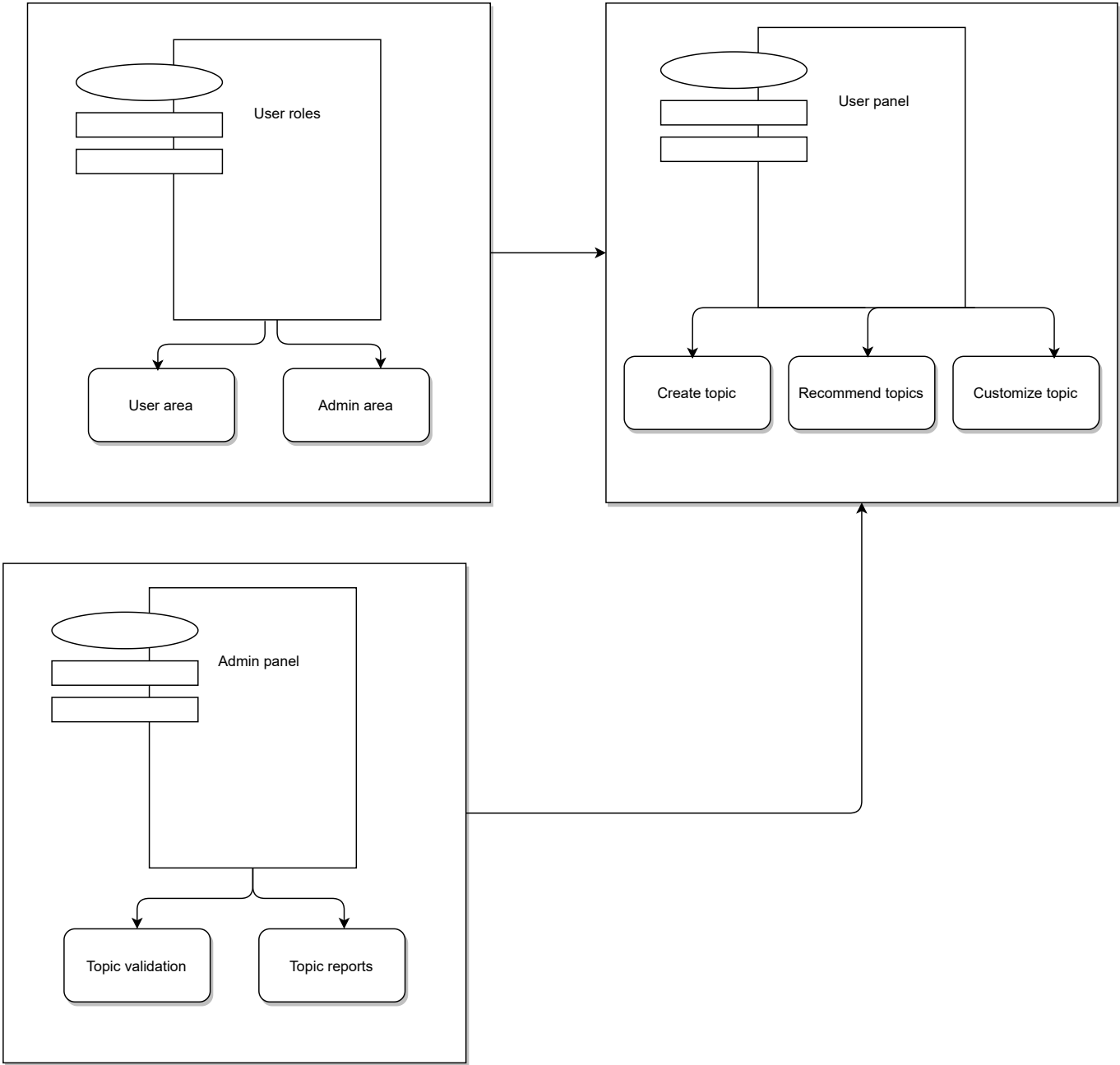
- ○ ☑ Physical view: Distribution diagram

C

Client Module

User module

Admin module

Search topic

Approve topic
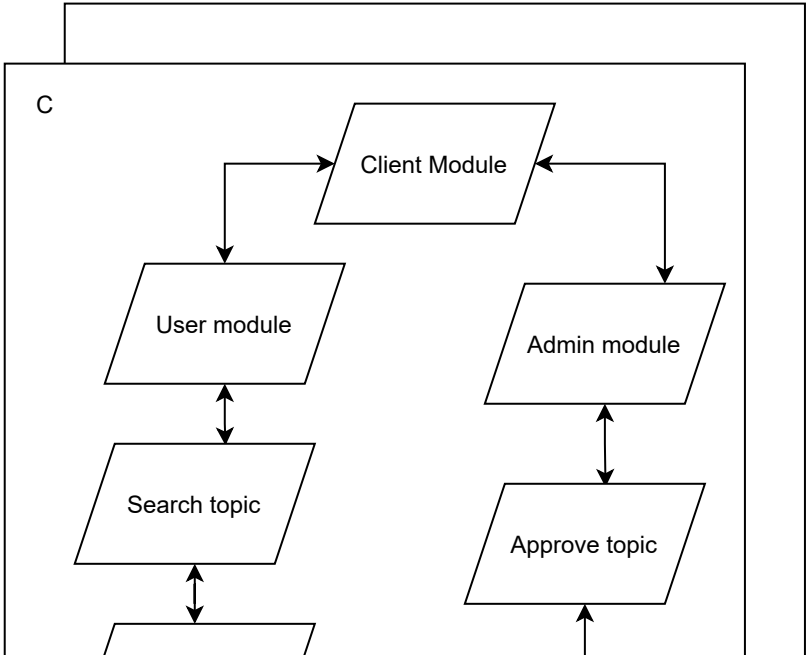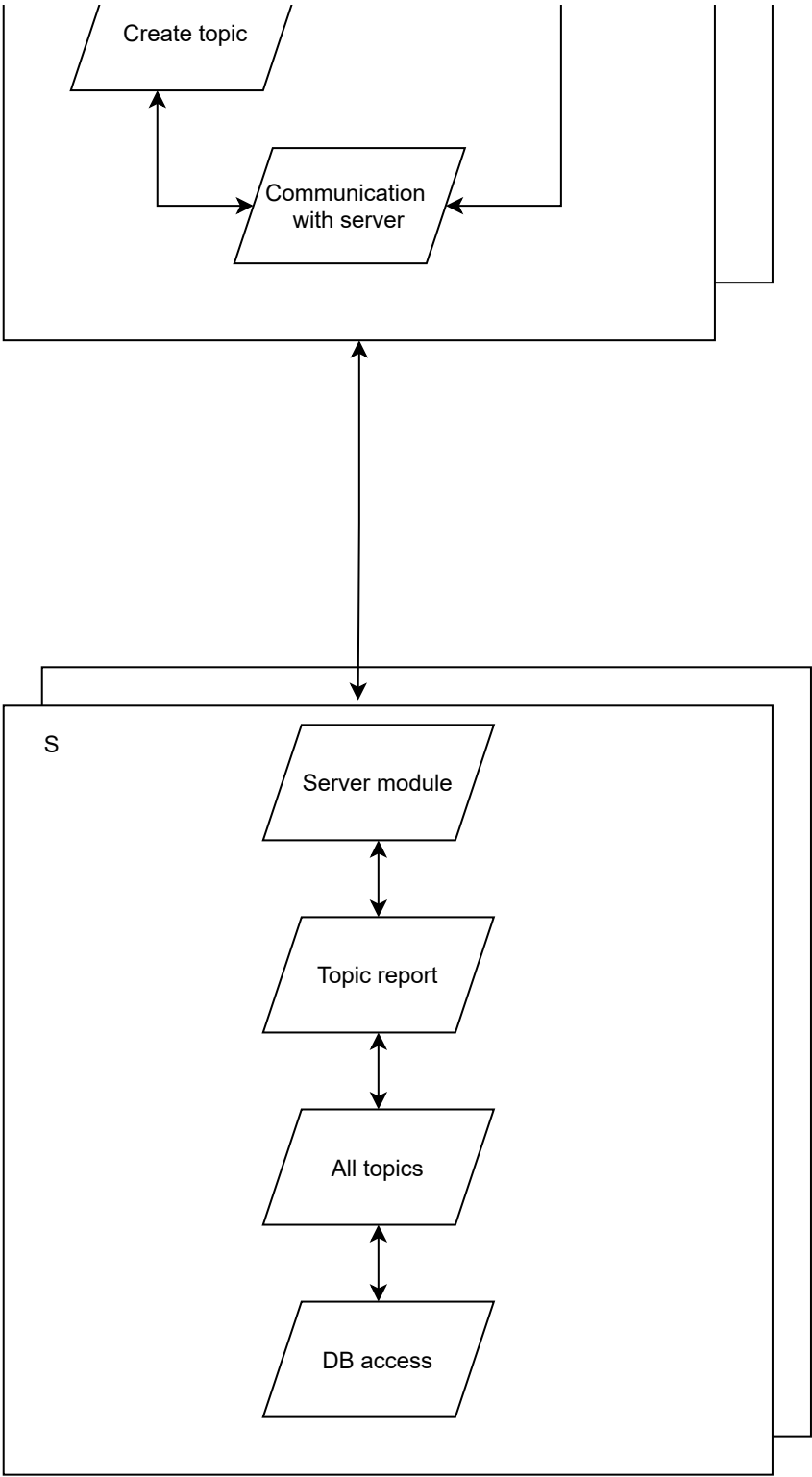
2. Each diagram must contain at least 3 elements within its representation.

○ ☑ Use cases (Include at least 5 elements of the diagram)

knowledge search system

User

- Topic Visualization
- Topic creation — <<Include>> --→ Topic Validation
- Topic Search
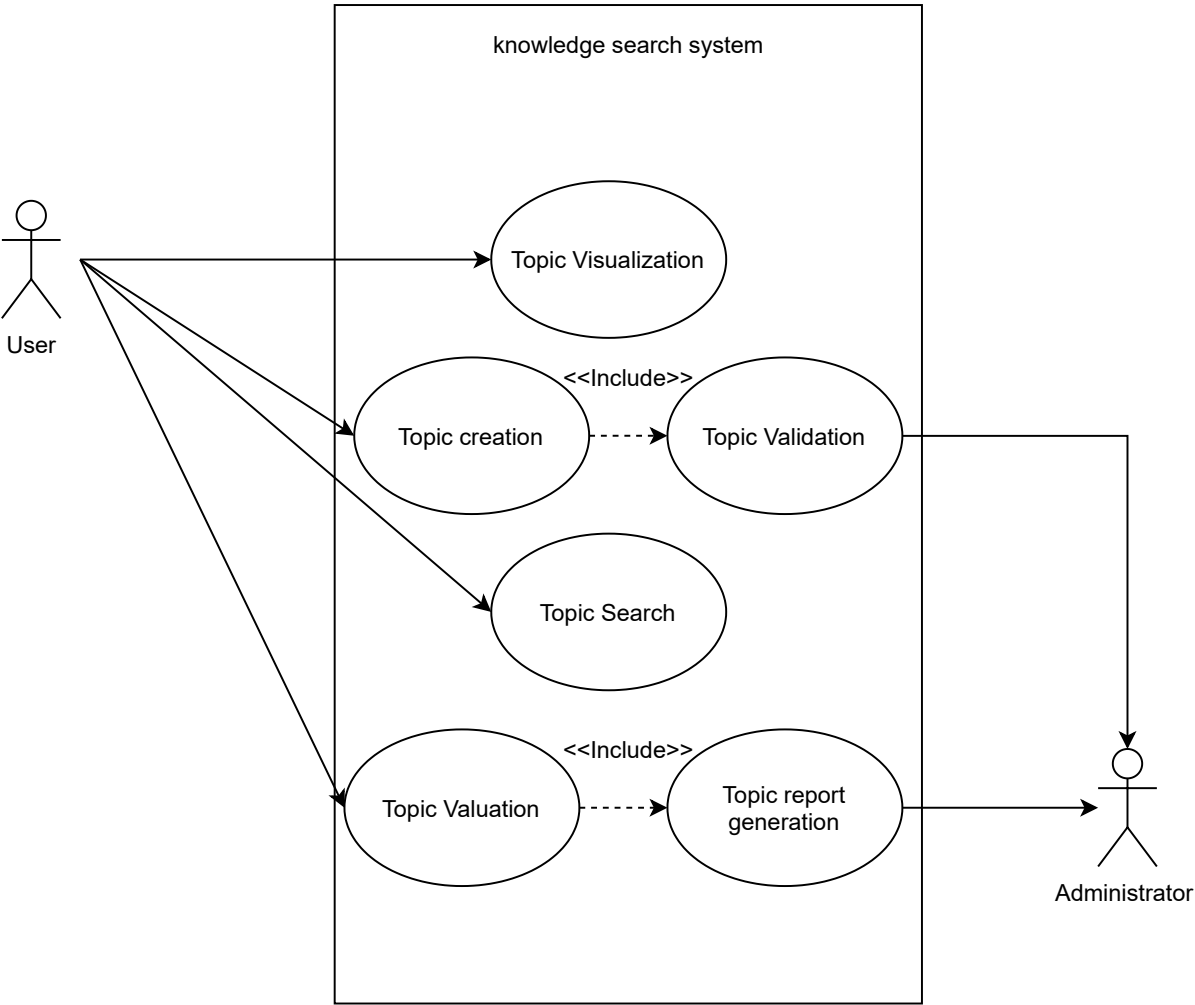- Topic Valuation — <<Include>> --→ Topic report generation

Administrator

○ ☑ Sequence diagram (Include at least 5 elements of the diagram)

| User | UserType | Users | Topics | Categories | Comments |

Enter the application and log in

The main view is assigned depending on the type of user

User searches topic

The selected topic and topics from similar categories are displayed

No topics found

At the end of the topic user can leave a comment

User can go back to search for more topics

- ☑ Class diagrams (Include at least 5 elements of the diagram)

UserType
+ idType int + name string
+asignUserType() string

Users
+idUser int + name string + User string + email string + password string +UserType string
+ Signin() void +Signout() void

Topics
+ idTopics int + idUser int + Title string + content string + images string + videos media + idCategory int +CreationDate DateTime
+ CreateTopic() void + SearchTopic() void + ValueTopic() void + VisualizeTopic() void

Comments
+ post_id int + name string + comment string + Date DateTime + status int
+PublicarComentario() void

Category
+idCategory int + category string
+asignCategory() void

- ☑ Package diagram containing component diagrams (Include at least 3 - diagram elements)

User interface layer

- User interface
- Admin interface

Knowledge search layer

- Create topic
- topic customization subsystem
- Create topic
- recommendation subsystem of related topics
- Topic valoration
- report creation subsystem

- Database
- Dataware House
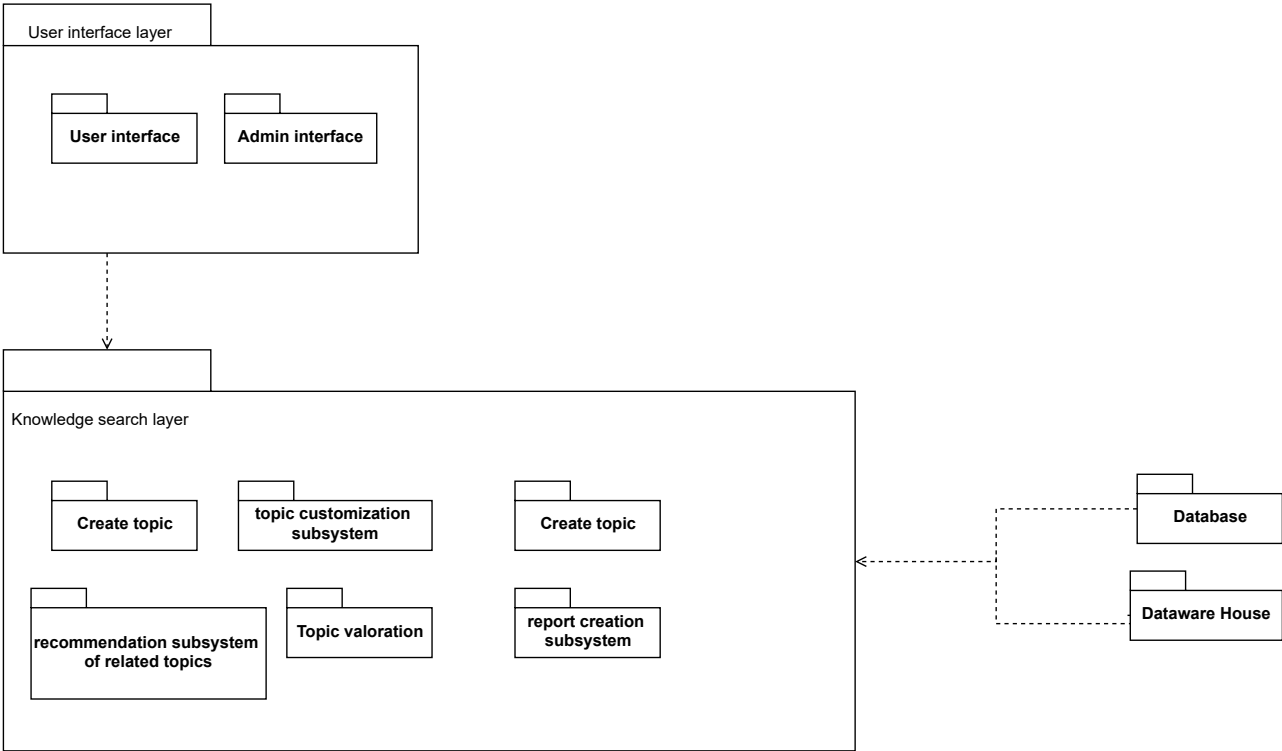
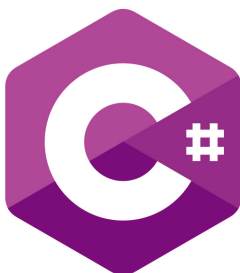- ☑ Distribution diagrams (Include at least 3 elements of the diagram)
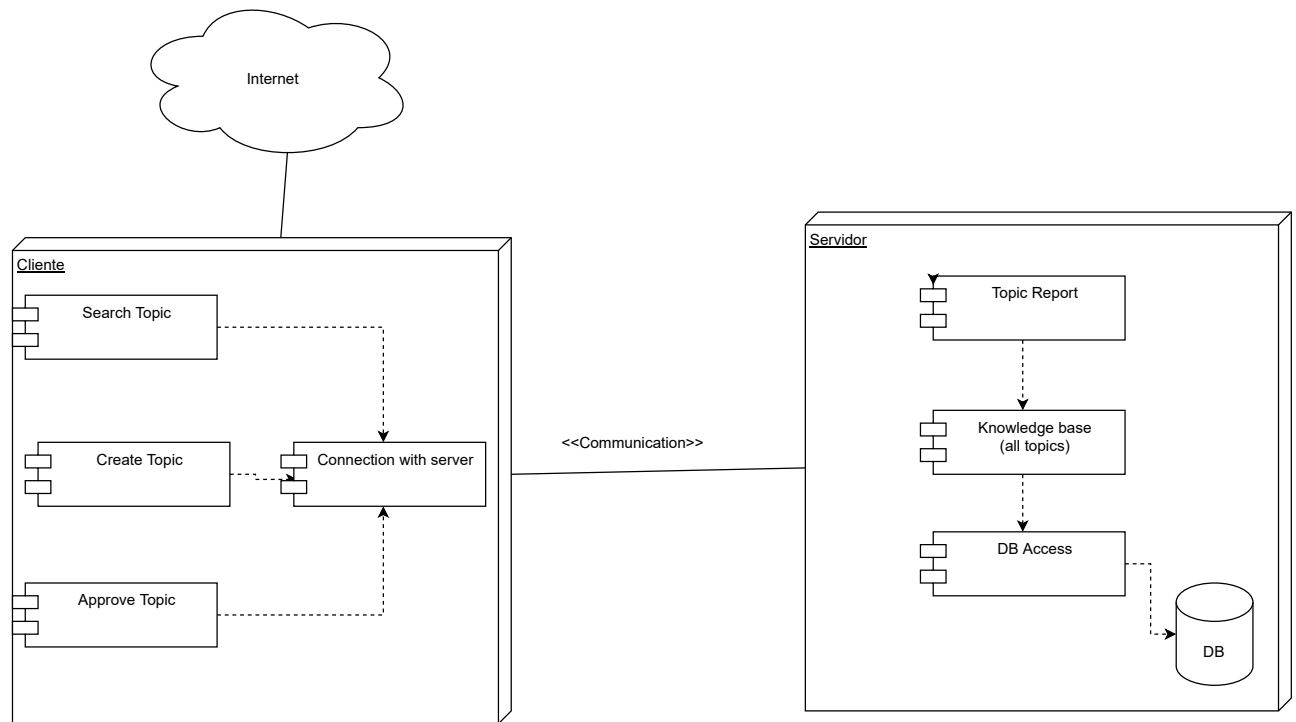
3. Indicate by means of annotations the own technologies that will be used, relying on images or illustrations that represent them.

ASP .NET

Lenguaje de programación C#

Base de Datos Firebase

Postman

Plataforma de desarrollo GitHub

Conclusions

Carlos Gallardo

The software architecture allows us to understand how the elements of the system will interact with each other. In other words, it allows us to identify the nature of the software communication. One of the biggest steps in this stage is identifying the tools, languages, devices, etc. that will be used within the development of the project. The most challenging part of this stage is identifying the criteria for developing the project.

Yessica Orihuela

This activity was very interesting because we were able to integrate different diagrams that we have already been working on during the project repeatedly, there were some diagrams a little complex to perform because in the documentation to make them came an example more applied to a project with physical components and not for a software one, however this helped us to see how this could be applied to our project. In the end all these diagrams help us to understand in depth the project to be developed and thus to be able to take it to code.

Merari Cortes

In this activity, the part that had doubts was in the architectural views, thanks to the help of my team, we were able to solve it. I think that the diagrams that we have made over time are very useful for the development of our project in the same way as we will plan it and with what bases for the creation of it, we think about the way in which we were going to create it and have it with the expectations that you want to achieve.

Maria Jazmin Sanabria

We are about to start the software development, resulting in the implementation of all the previously made diagrams and analyses, as well as the full list of requirements. Although software coding seems hard, using the documents as reference will make the work sort of easier since a better understanding of the knowledge system has been applied on each of the team members.

[Go to repository]