

Easy University Life

Software Requirements Specification

Software Engineering

Version One

Date

Project Id: 2

Team Members:

Lama Salawati	443002598	s443002598@st.uqu.edu.sa
Retaj Mujahed	443007147	s443007147@st.uqu.edu.sa
Raghad Junad	443012080	s443012080@st.uqu.edu.sa
Sumayya Alzanbhi	443009516	s443009516@st.uqu.edu.sa

- **Table of changing diagrams**

Diagram name	Page number	Modification explanation
Use case 1,2	10,11	modifying the relationships between the use cases.
Sequence (Account)	13	fixed the position of the objects and actors.
Sequence (Content creation)	14	fixed the position of the objects and actors.
Sequence (Uploading of content)	15	fixed the position of the objects and actors.
Sequence (Session)	16	fixed the position of the objects and actors.
Sequence (Slides)	17	fixed the position of the objects and actors.
Sequence (Visual elements)	18	fixed the position of the objects and actors.
Class diagram	25	modified all the classes and relationships.
Communication (Account, Content creation)	30	fixed it after fixing the sequence diagram.
Communication (Uploading of content, session)	31	fixed it after fixing the sequence diagram.
Communication (Upload slides, Visual elements)	32	fixed it after fixing the sequence diagram.
Component	33	modified everything
Development	34	modified everything

Business Requirements

Chapter1

1. Business Requirements

The platform facilitates university life for students by providing a range of tools designed to optimize the learning experience. Users can attach comprehensive explanations to educational materials, convert files into question cards for effective review, and participate in live sessions to share and discuss educational content with peers.

Chapter2

2.Stockholders

- EULSystem.
- UQU Students.
- Administrator.
- UQU DB.

2.1 Requirements Gathering Methods

- Observations.

Chapter3

3. Glossary

- 1. Authenticate:** To verify the identity of a user, typically through the use of a username and password.
- 2. Username:** A unique name used by a person to access a computer system, network, or online service.
- 3. Password:** A secret combination of characters used to authenticate a user's identity.
- 4. Session:** A period during which a user interacts with a system or application, typically starting when the user logs in and ending when they log out.
- 5. Content creator:** A person who produces and publishes digital content, such as videos, articles, or audio recordings.
- 6. Study session:** A period dedicated to learning or studying a particular subject or topic.
- 7. Upload:** To transfer data (such as files) from a local computer to a remote system, typically a server or cloud storage service.
- 8. Video file:** A digital file containing video data, often encoded in a specific format for playback on devices or platforms.
- 9. Voice record:** An audio recording captured using a microphone or recording device.
- 10. Edit:** To make changes or modifications to digital content, such as adjusting video footage or audio recordings.
- 11. Delete:** To remove or erase digital content from a system or storage device.
- 12. Criteria:** Conditions or requirements that must be met for something to be considered acceptable or satisfactory.
- 13. Specify:** To clearly define or state the details or requirements of something.
- 14. Format:** The structure or arrangement of data, typically used to describe how information is stored or presented.
- 15. Compliance:** Adherence to rules, regulations, or standards, often in reference to legal or industry requirements.
- 16. Validate:** To check or confirm the accuracy or validity of something, such as data or user input.
- 17. Error message:** A notification displayed by a system or application to inform the user about a problem or issue.
- 18. Access platform:** A system or service that allows users to interact with digital content or resources.
- 19. Specify timeframe:** To define a specific period or duration of time.
- 20. Include:** To add or incorporate something as part of a whole.
- 21. Details:** Specific pieces of information or particulars about something.

Chapter4

4. Analysis phase

4.1 Functional Requirements

4.1.1 User Requirement

1. The user should be able to log in with a username and a password and choose either if he wants to be browser or creator.

4.1.1 System Requirement

- 4.1.1.1 The system shall require users to authenticate using a username and password to access the platform.
- 4.1.1.2 The system shall validate that the entered username begins with "s44" to ensure compliance with the specified format.
- 4.1.1.3 The system shall validate that the entered password begins with "St" to meet the specified criteria.
- 4.1.1.4 The system shall display an error message prompting the user to correct the input If the entered username or password does not meet the specified format.
- 4.1.1.5 The system shall create a session for the user, allowing them to access platform features without repeated authentication within a specified timeframe.
- 4.1.1.6 The system should allow the user to use the platform for browse or to create.
- 4.1.1.7 The system should allow the content creator to create a study session and upload video file or voice record for specific courses and topics and edit them.
- 4.1.1.8 The system should allow the browser to join study sessions and watch voided file or listen to voice record or use other tools (Question cards).

4.1.2 User Requirement

2. The user should be able to create, edit, or delete video files or voice record.

4.1.2 System Requirement

- 4.1.2.1 The system should allow content creator the ability to create videos files, or voice record for specific courses and specific topics.
- 4.1.2.2 The system should allow content creator the ability to edit videos files, or voice record for specific courses and specific topics.
- 4.1.2.3 The system should give the content creator the option to include date, and time details.
- 4.1.2.4 The system should allow content creator the ability to delete voice record for specific courses and specific topics.

4.1.3 User Requirement

3. The user should be able to upload video file or voice record for specific courses and specific topics.

4.1.3 System Requirement

4.1.3.1 The system shall provide content creator with the capability to select a specific course they intend to teach.

4.1.3.2 The system shall provide content creator with the capability to select the specific topic within a course that they intend to teach.

4.1.3.3 The system should allow the content creator to receive confirmation notifications upon successful upload of files or voice record.

4.1.3.4 In case of any errors or issues during the upload process, content creator should be provided with clear error messages.

4.1.3.5 The system should allow content creator to allow or disallow browser to save specific uploaded video file or voice record.

4.1.3.6 The system should allow the browser to save upload files for specific courses and topics.

4.1.3.7 The system should provide a message to the browser that saving this content is not permitted.

4.1.4 User Requirement

4. The user should be able to download lecture slides and the AI tool will convert the slides content to question cards.

4.1.4 System Requirement

4.1.4.1 The system should provide user to choose any slides to convert it to question cards.

4.1.4.2 The system should allow user to choose whether they want the questions to include the correct answers or only the questions.

4.1.4.3 The system should provide the user the option to display the answers immediately or request them later.

4.1.4.4 The system should provide user with the ability to select the difficulty level of the questions, with options for easy, medium, and difficult.

4.1.5 User Requirements

5. The user should be able to create or join study sessions that focuses on courses or project discussions.

4.1.5 System Requirements

4.1.5.1 The system should allow user to create study sessions, including options for date, time, and topic details.

4.1.5.2 The system should allow user to choose session format, such as discussion, presentation, or collaborative work.

4.1.5.3 The system should send notifications to the user regarding upcoming study sessions related to their enrolled courses or projects.

4.1.5.4 The system should allow participants to engage in discussions through live chat, voice, or video during sessions.

4.1.6 User Requirements

6. The User should be able to view various file formats, videos, and audio files of specific courses and topics.

4.1.6 System requirements

4.1.6.1 The system should allow the user to view multiple file formats (PDFs, Word documents, etc.).

4.1.6.2 The system should allow the user to access and play voice recordings related to a course and to a topic.

4.1.6.3 The system should allow the user to play video files related to a course and a topic. **6.4** The system should allow the user to save the video/voice files.

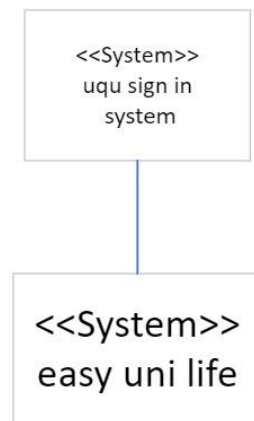
4.2 Non-Functional Requirements

- 1. Performance:** File upload and processing times shall be optimized to minimize user wait times and ensure efficient handling of uploaded content.
- 2. Reliability:** Backup and recovery mechanisms shall be in place to protect against data loss and ensure the integrity of uploaded content in case of system failures or disruptions.
- 3. Usability:** The system interface shall be intuitive and easy to navigate, allowing users to select courses, topics, and upload content without extensive training.
- 4. Security:** Secure authentication protocols must be implemented to protect user accounts and educational data.
- 5. Maintenance:** Regular updates and maintenance should be conducted to address potential bugs, security vulnerabilities, and improve overall system performance.
- 6. Scalability:** The system should be designed to handle many users simultaneously without performance degradation.

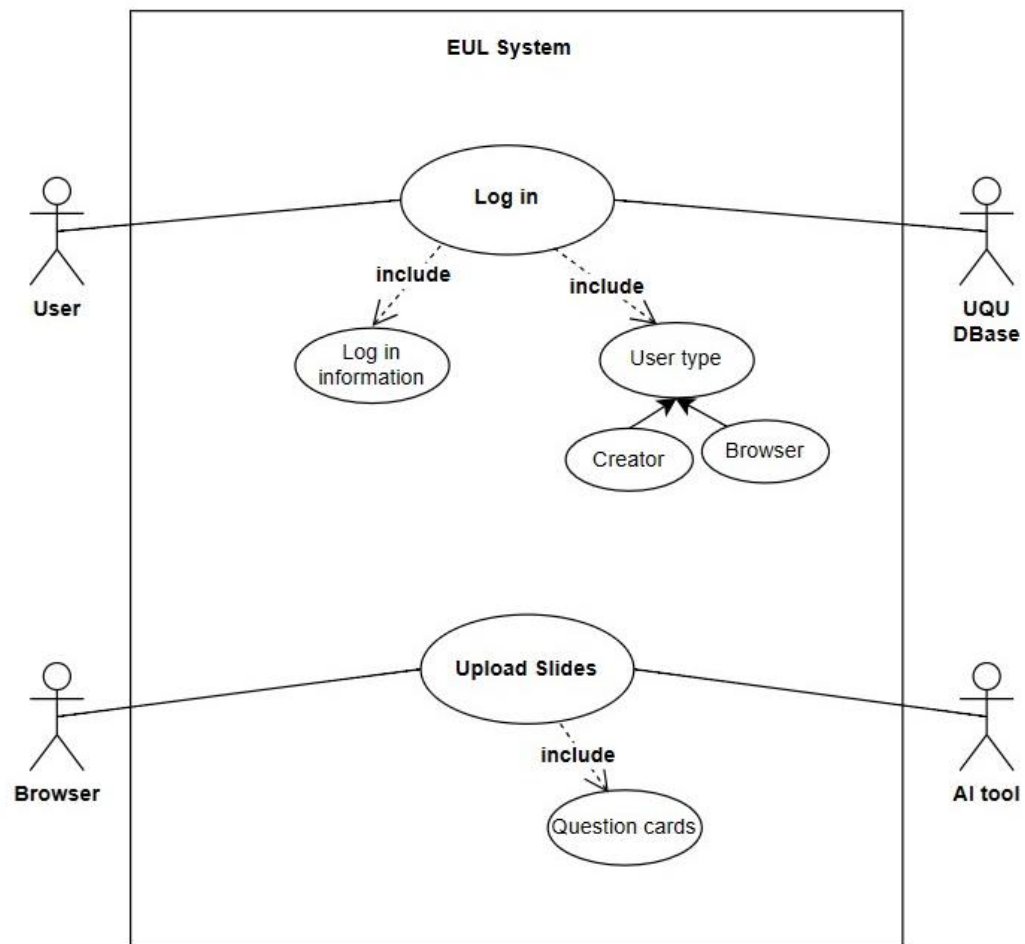
Chapter5

UML System Models

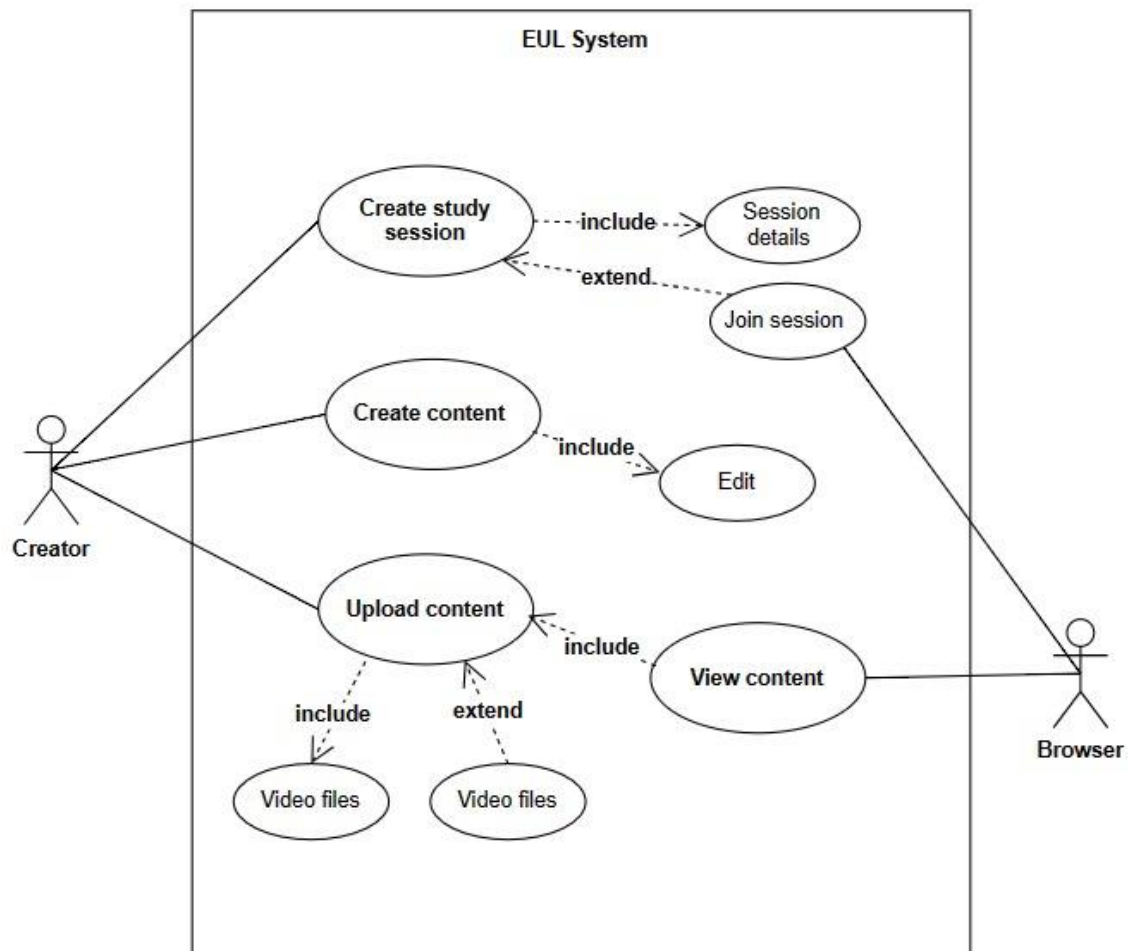
- Context models



- Use case Diagram 1



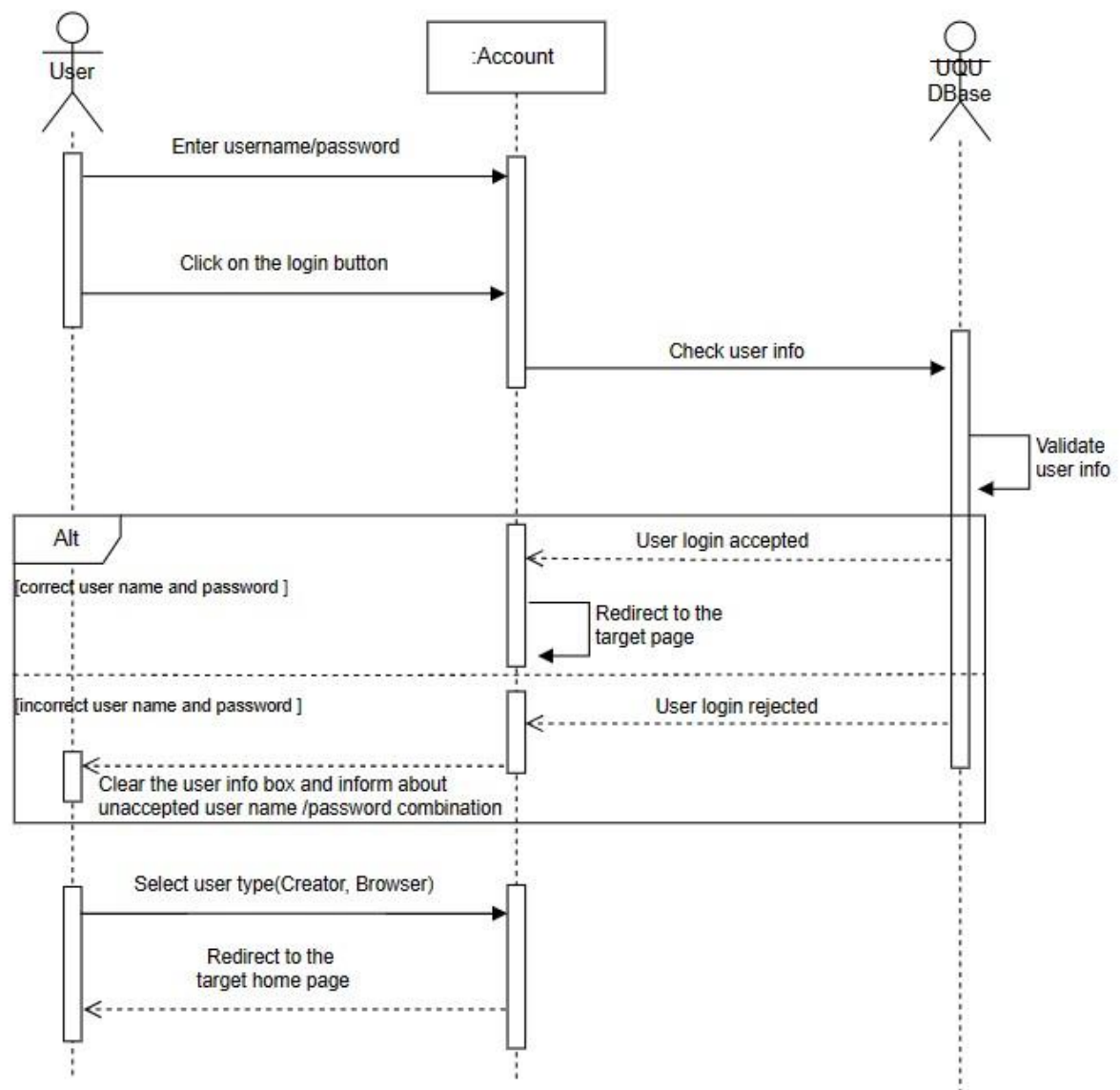
- Use case Diagram 2



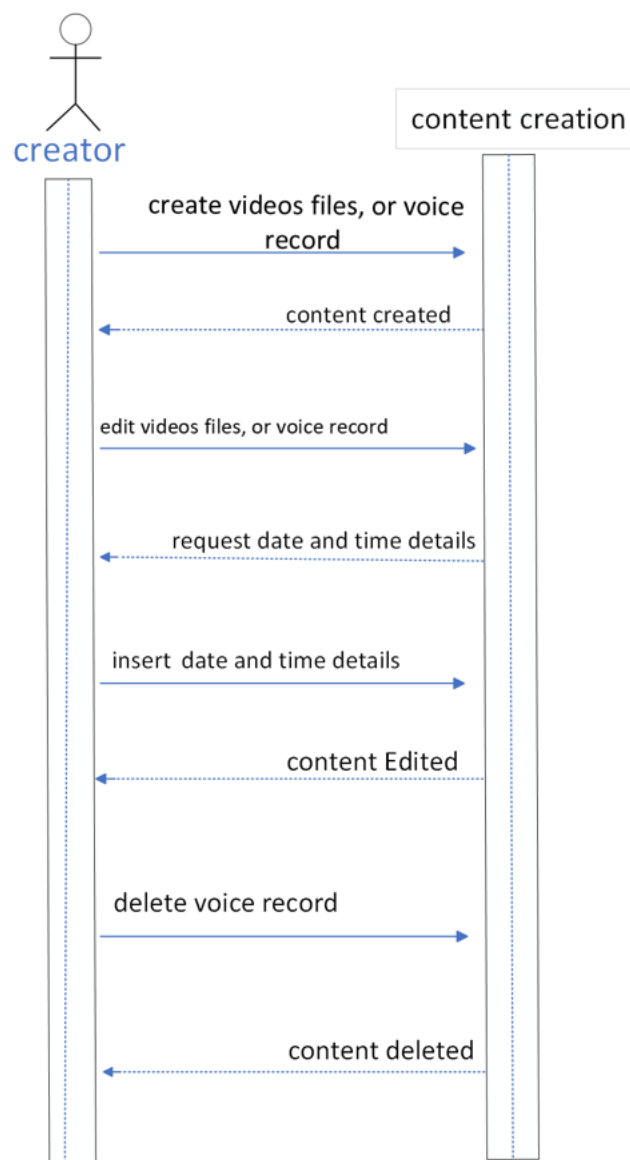
- Use case text

Use case	Login
Actor	User
Description	The users have the ability to log in with username and password and choose user type they want.
Use case	Create content
Actor	Ceartor
Description	The creator should be able to create, edit, or delete video files or voice record for specific courses and specific topic with the ability to include date and time details.
Use case	Upload content
Actor	Ceartor
Description	The creator can upload video file and voice record with the capability to select the specific topic within a course they intend to teach.
Use case	Study session
Actor	Ceartor
Description	The creator should be able to create study sessions, with the ability to choose session format and time and sending invitations to other students.
Use case	Upload slides
Actor	Browser, AI tool
Description	The browser downloads the selected slides, through which it can also create question cards created by the AI tool.
Use case	View content
Actor	Browser
Description	The browser should be able to view various types of content (e.g. videos, voice recordings) that are uploaded, associated with the study session for specific course/topic.

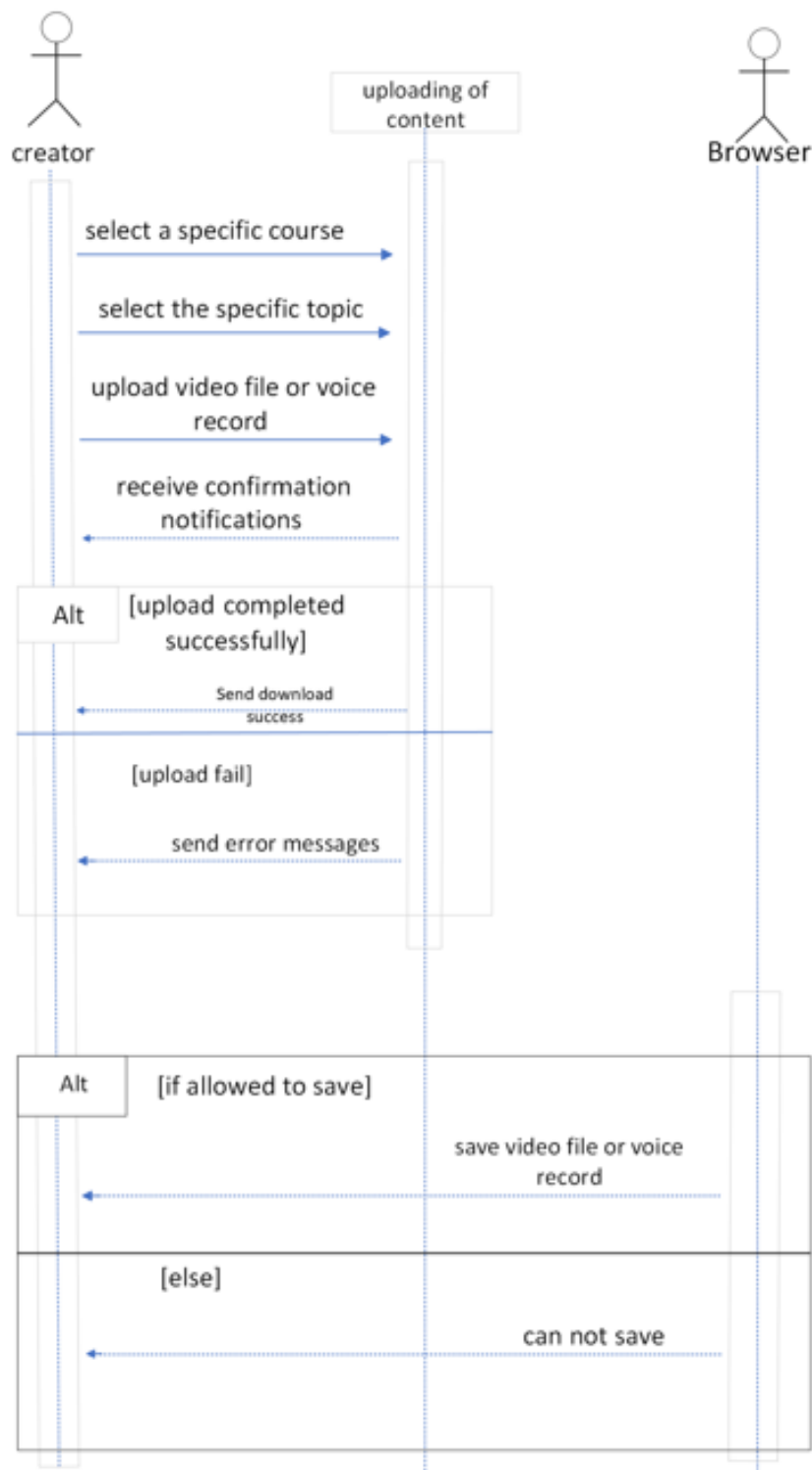
- Sequence diagrams
- Login



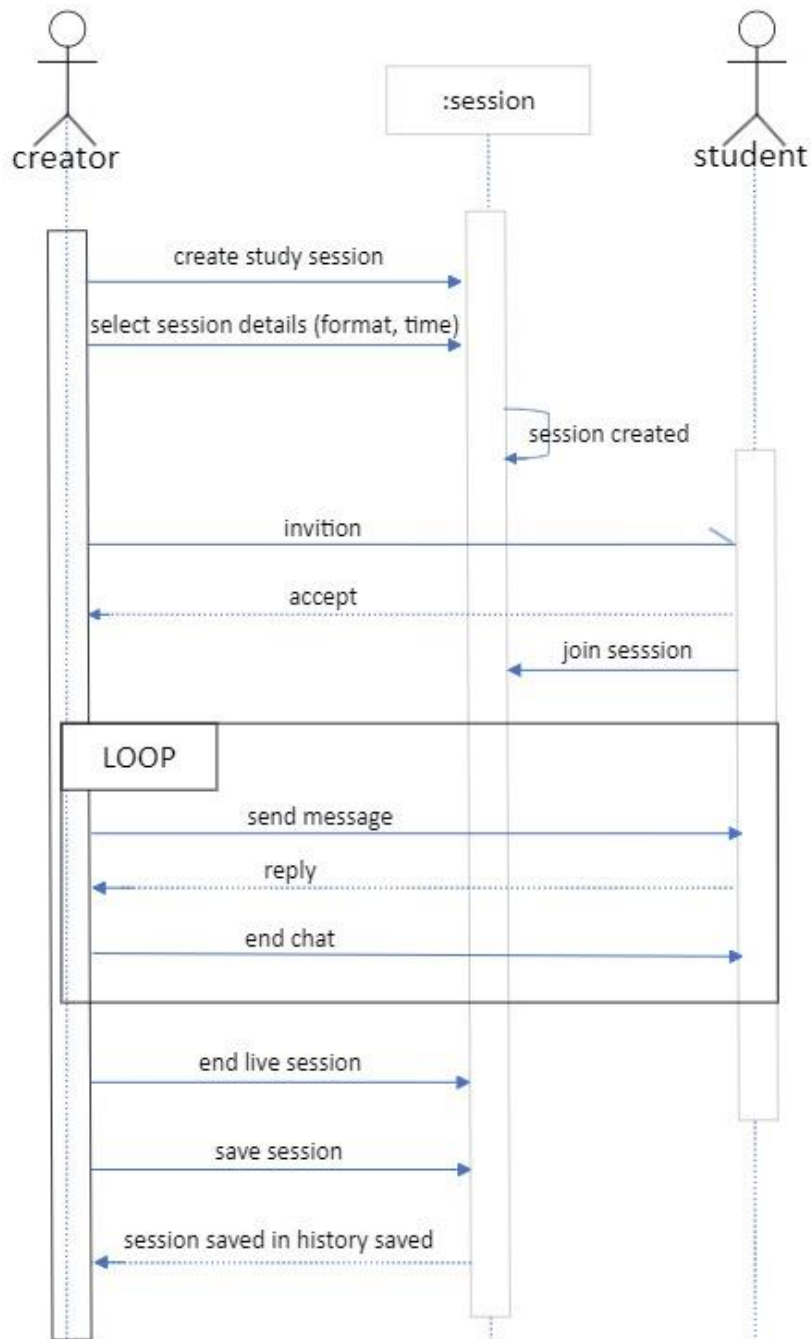
- **Create content**



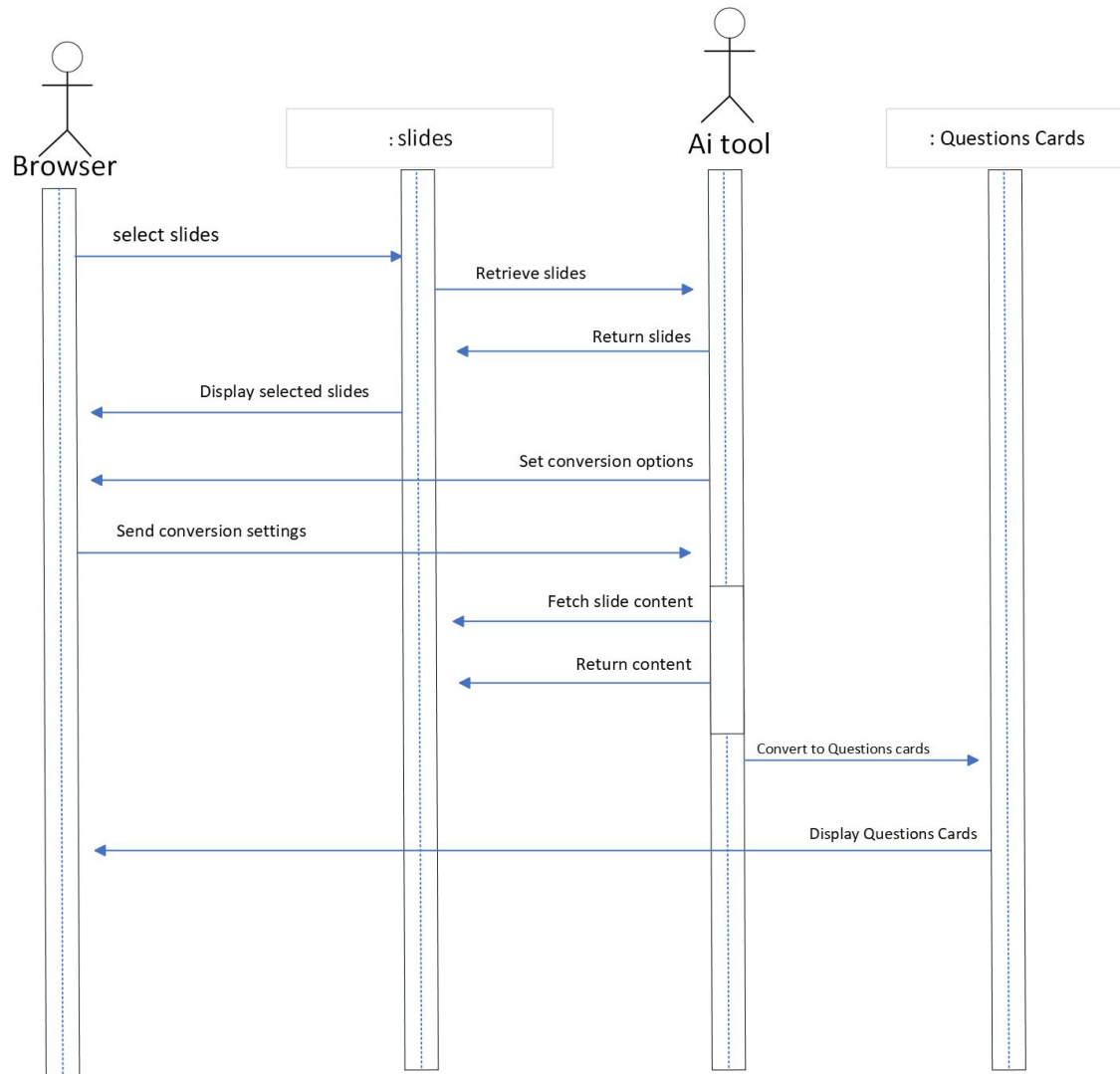
- **Upload content**



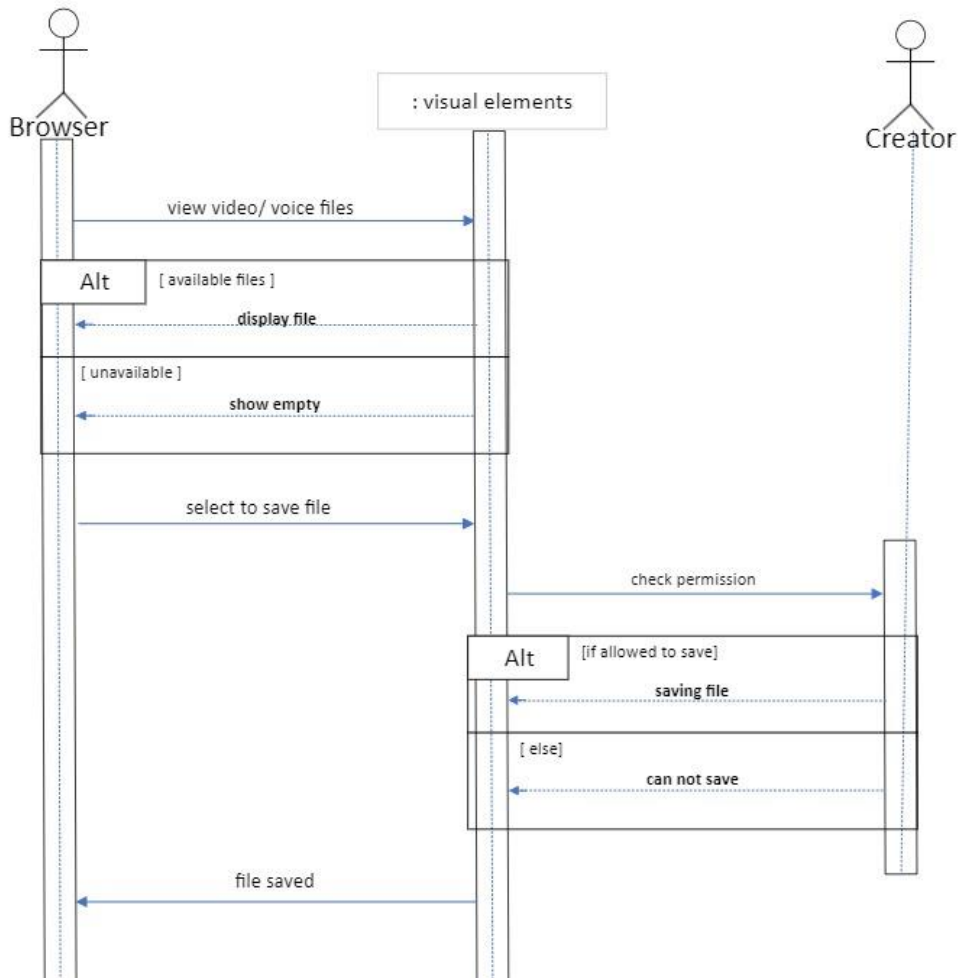
- Study session



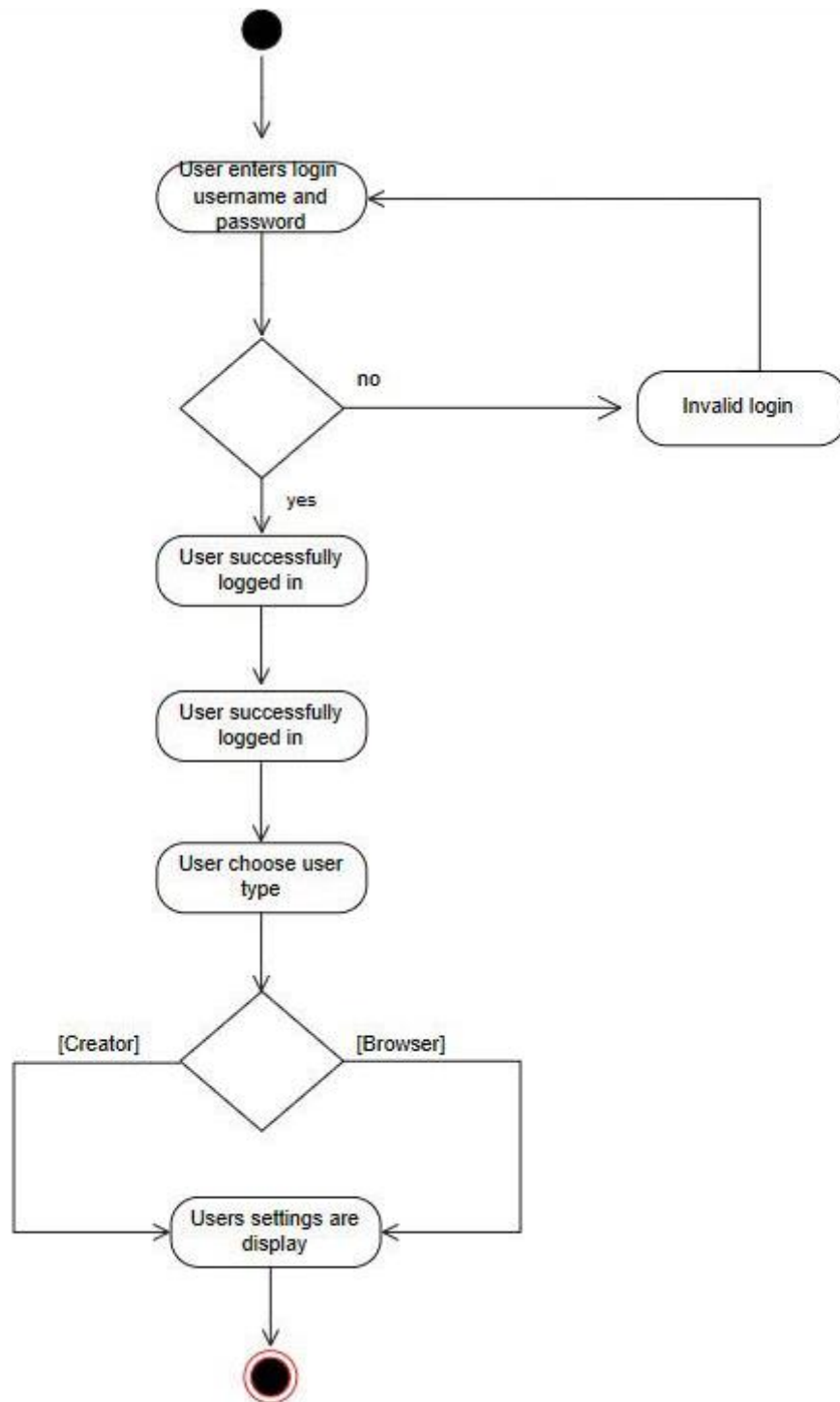
- **Upload slides**



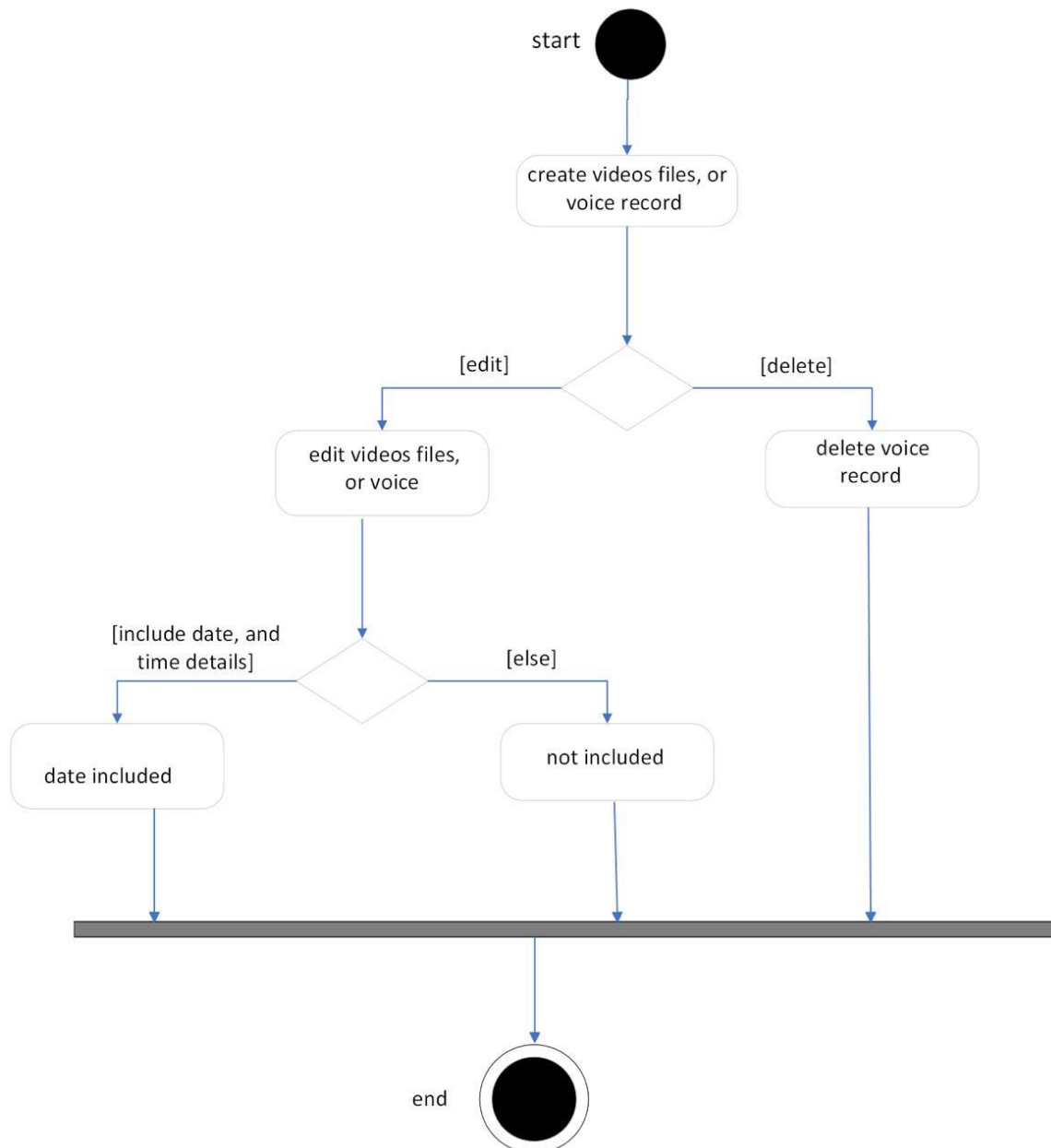
- **View content**



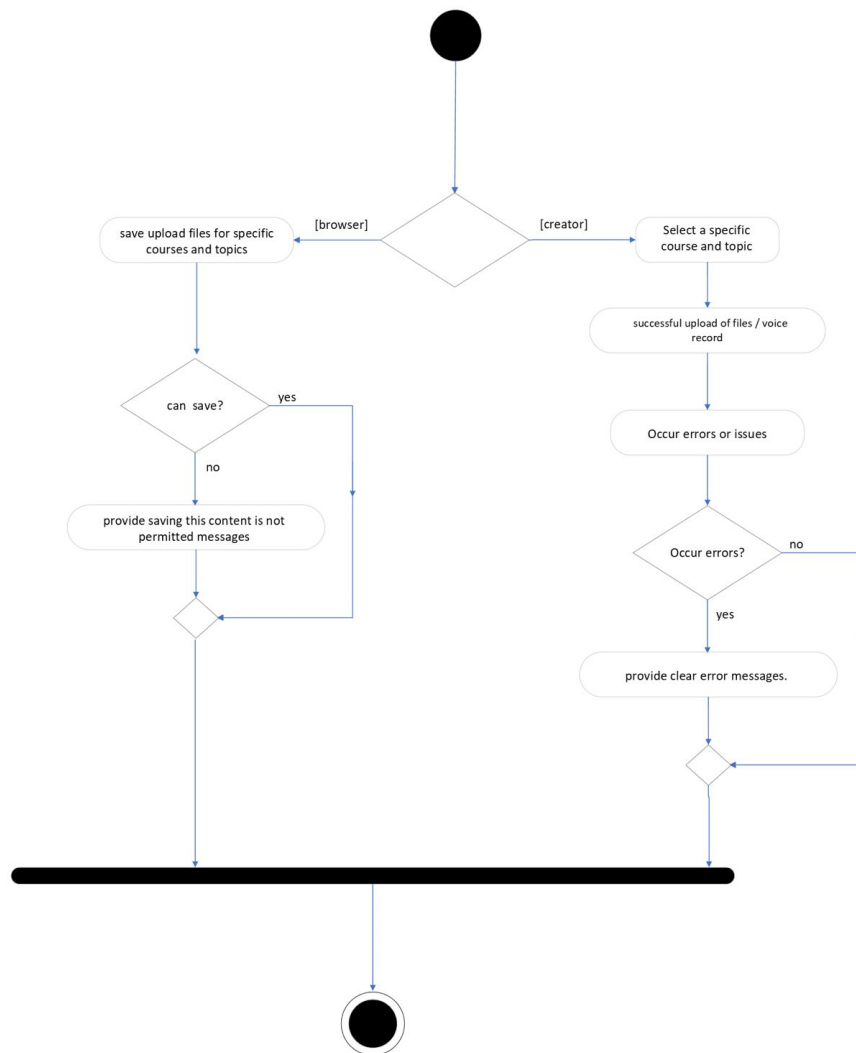
- Active diagrams
- Login



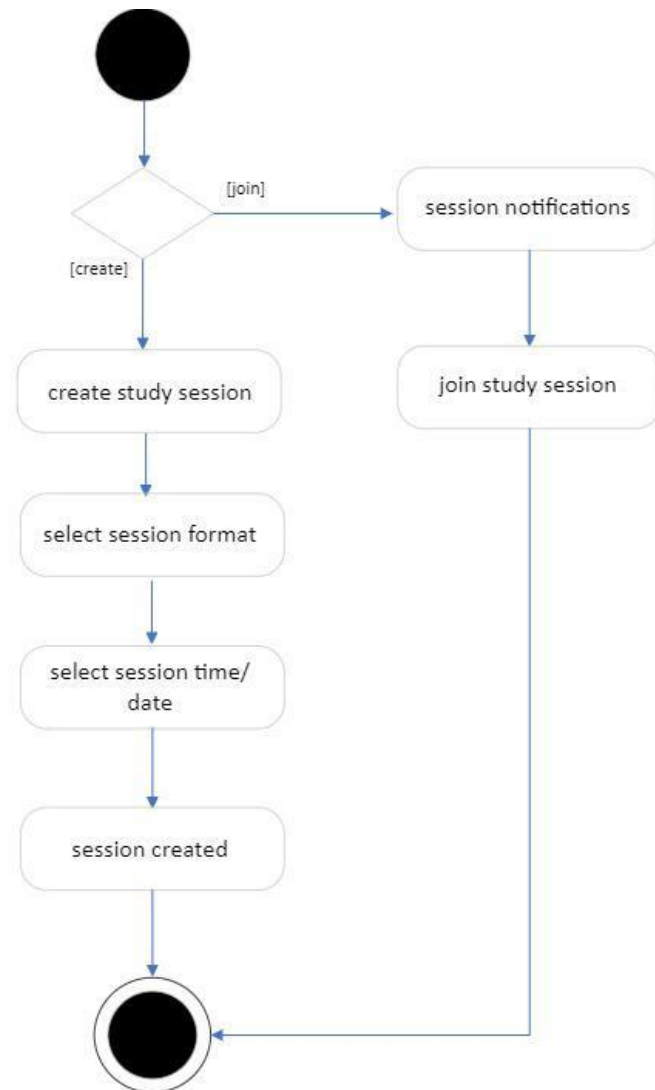
- **Create content**



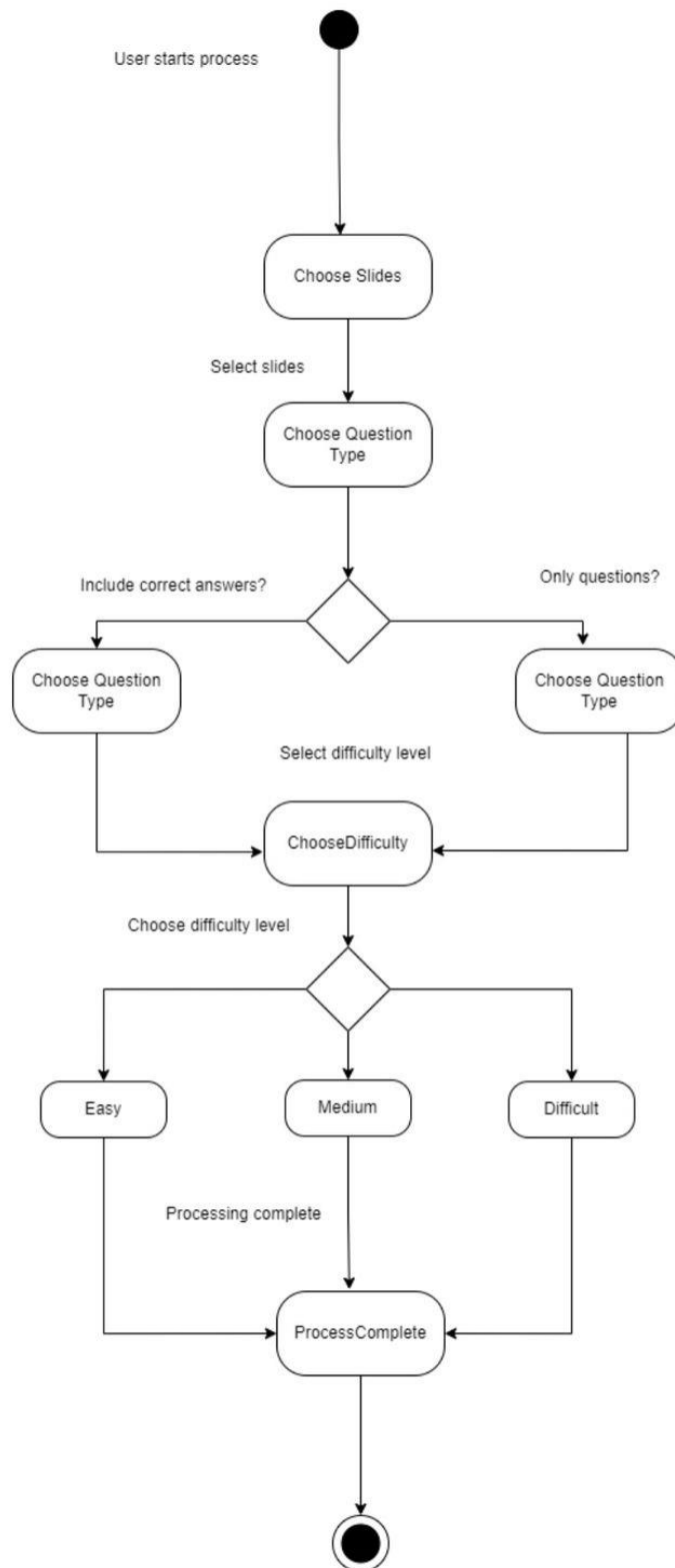
- **Upload content**



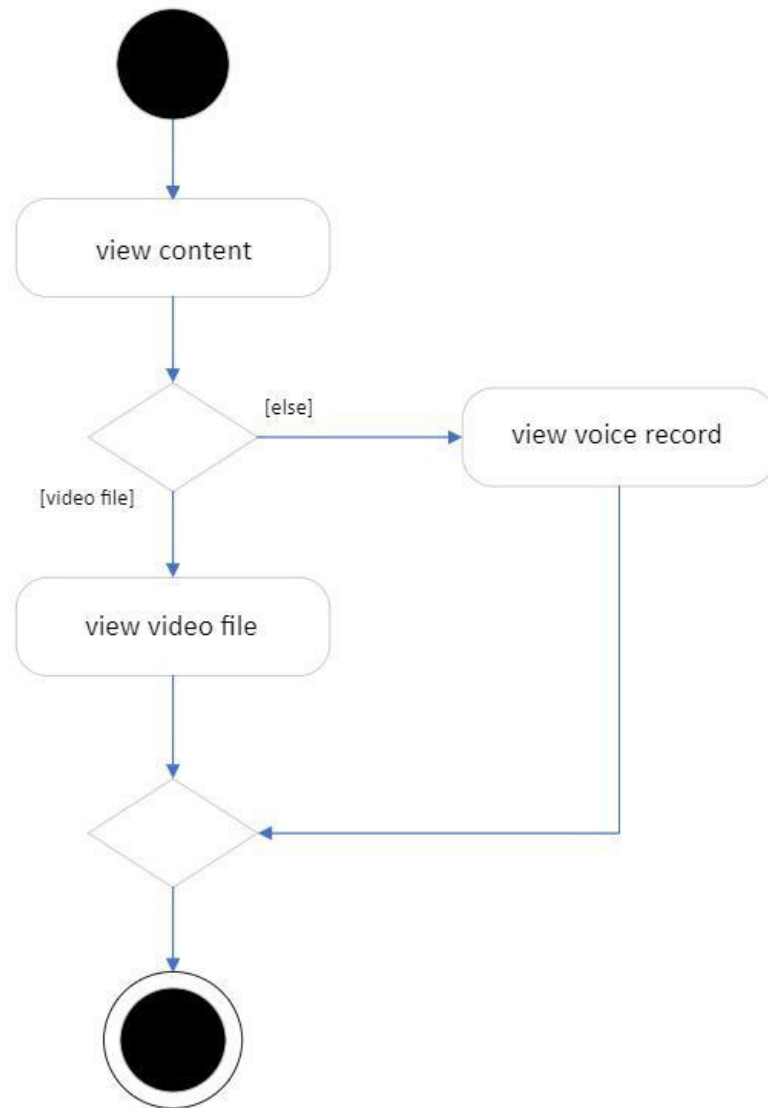
- **Study session**



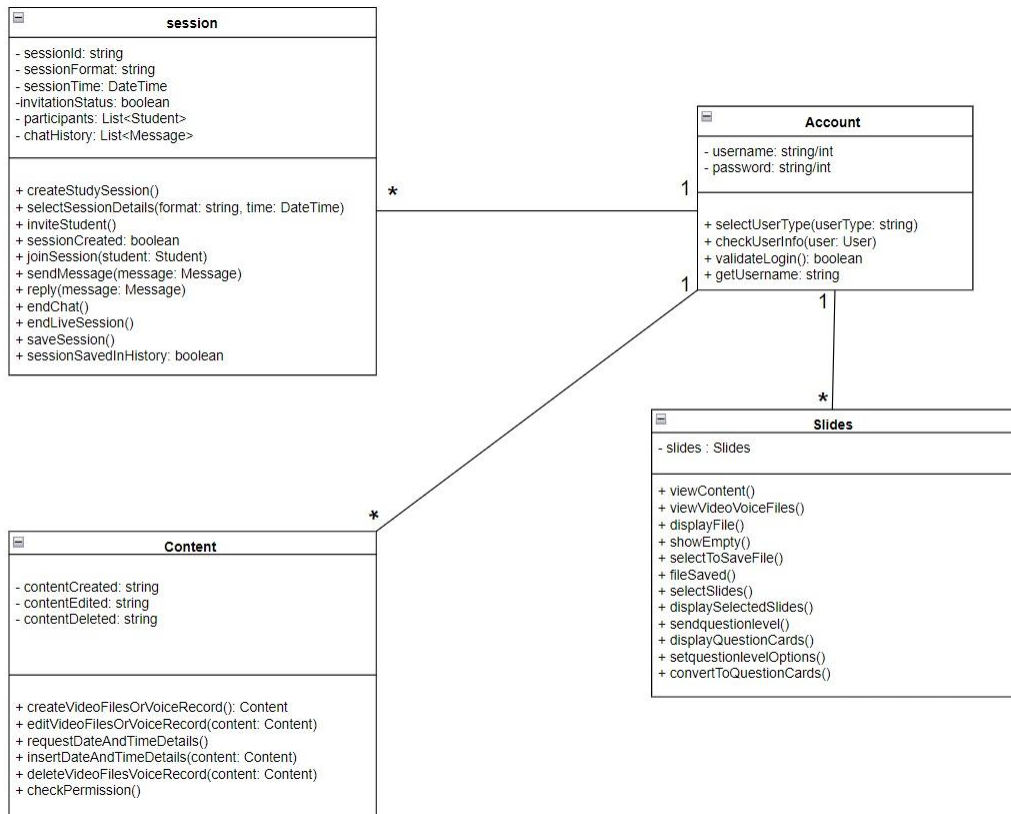
- **Upload slides**



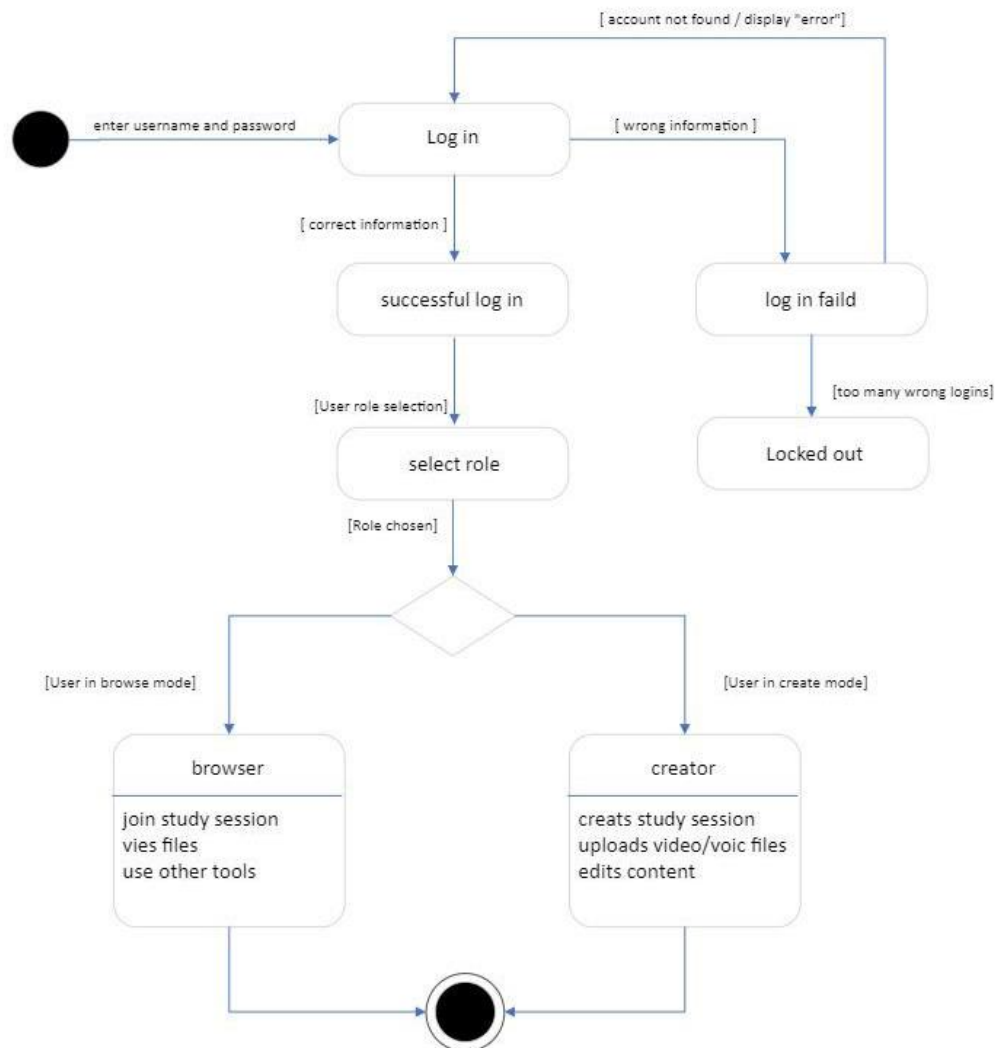
- **View content**



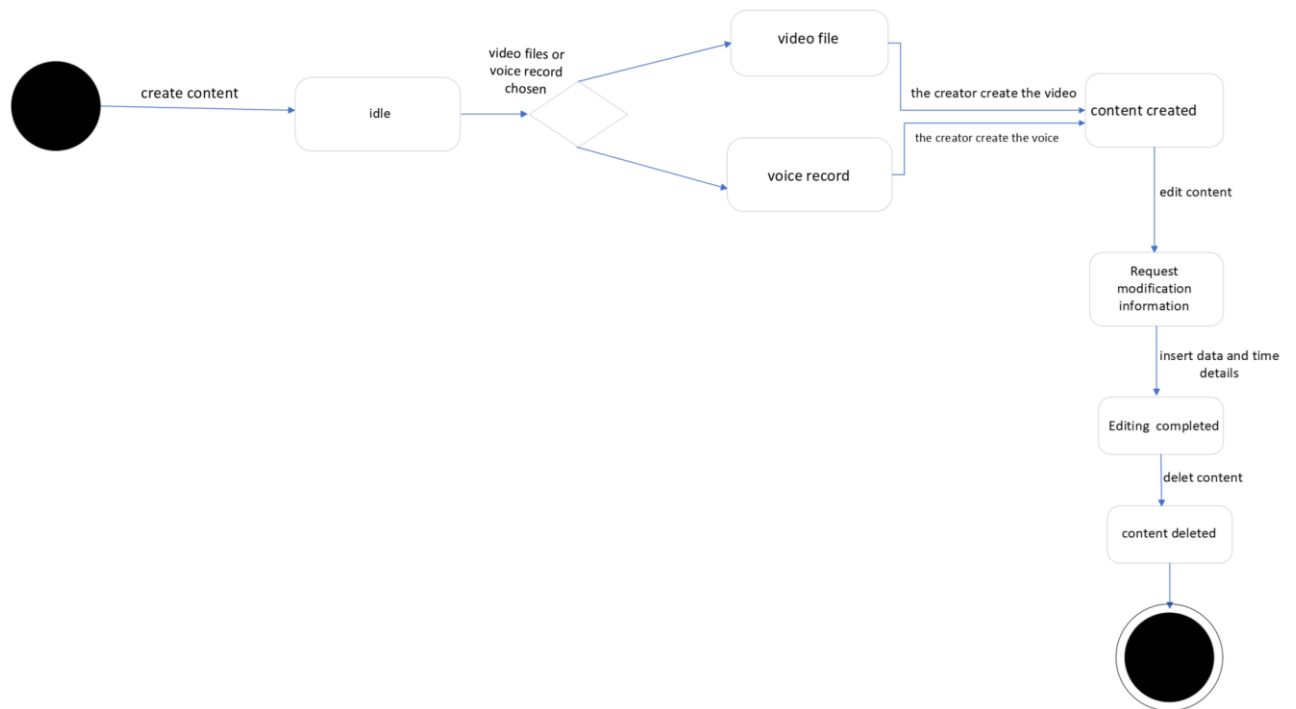
- **Class diagram**



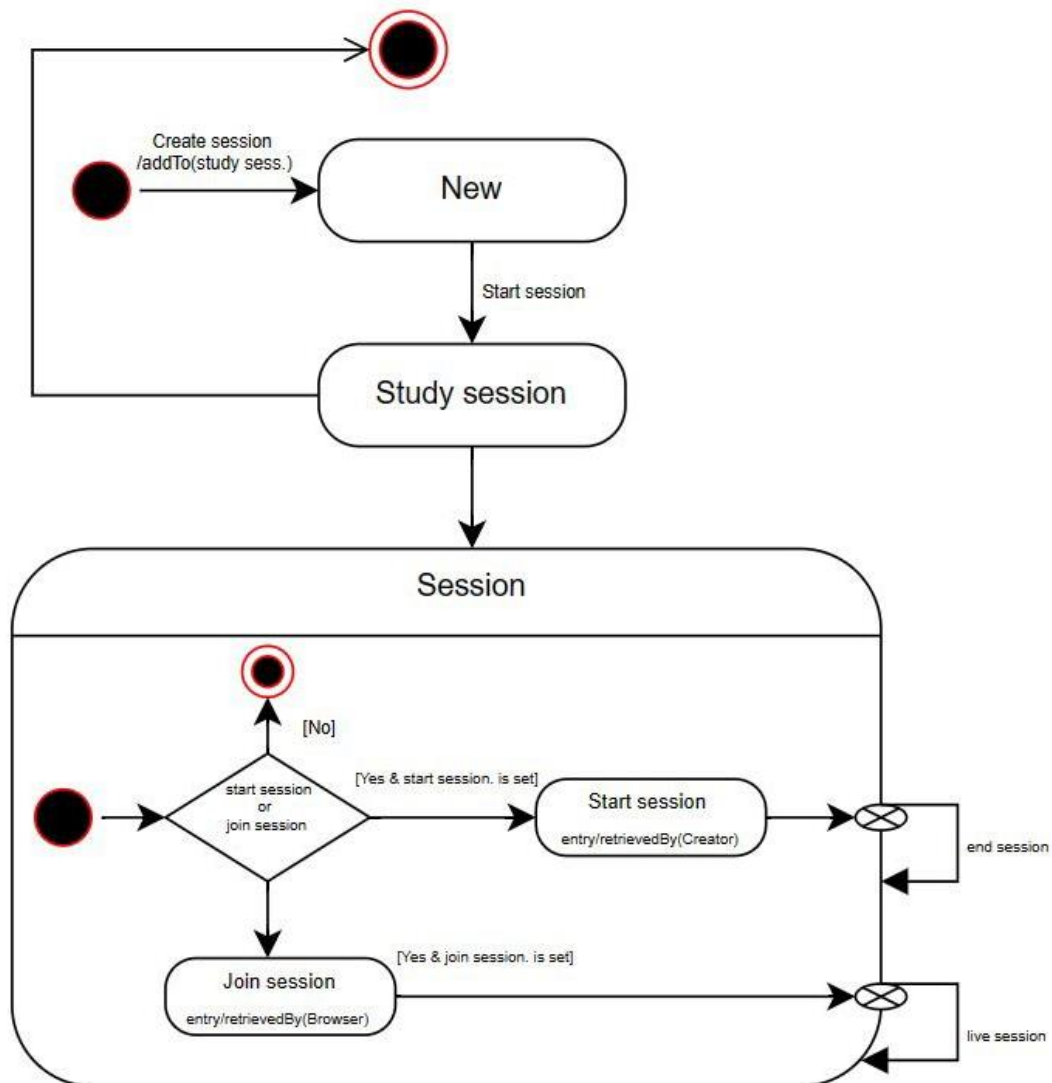
- state diagrams
- Login



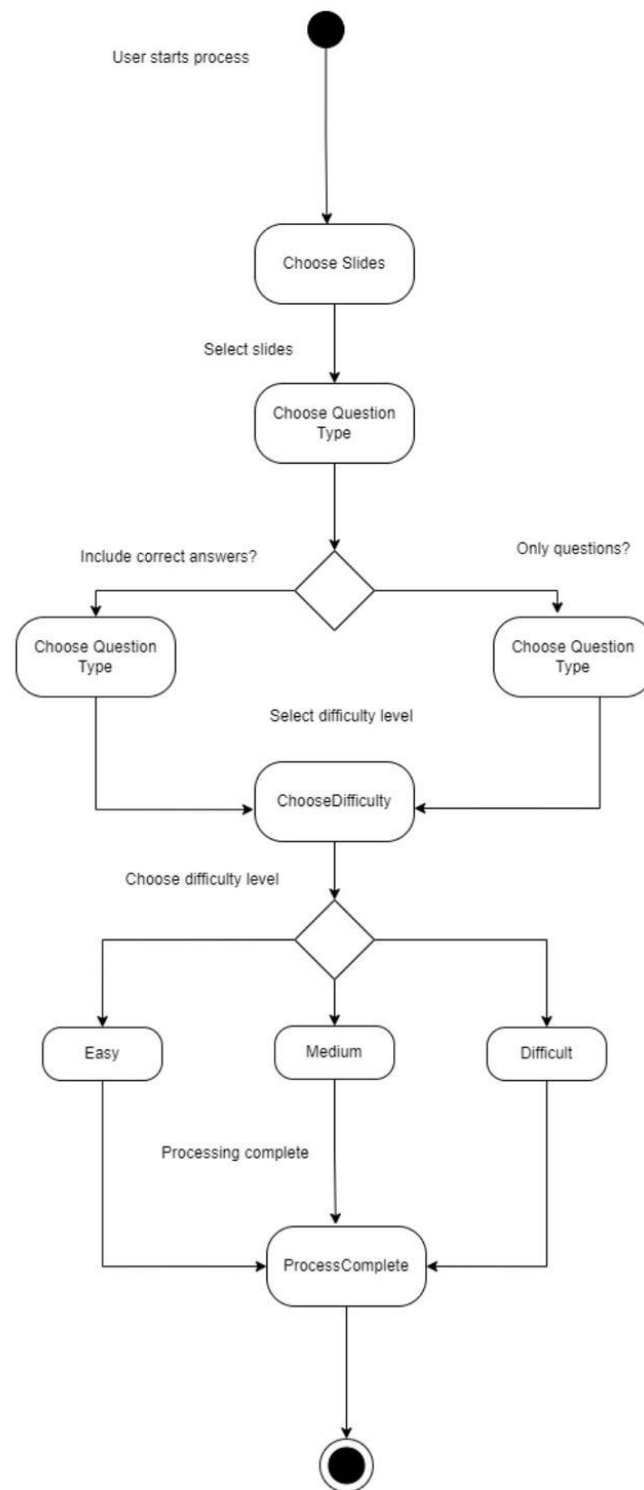
- **Content**



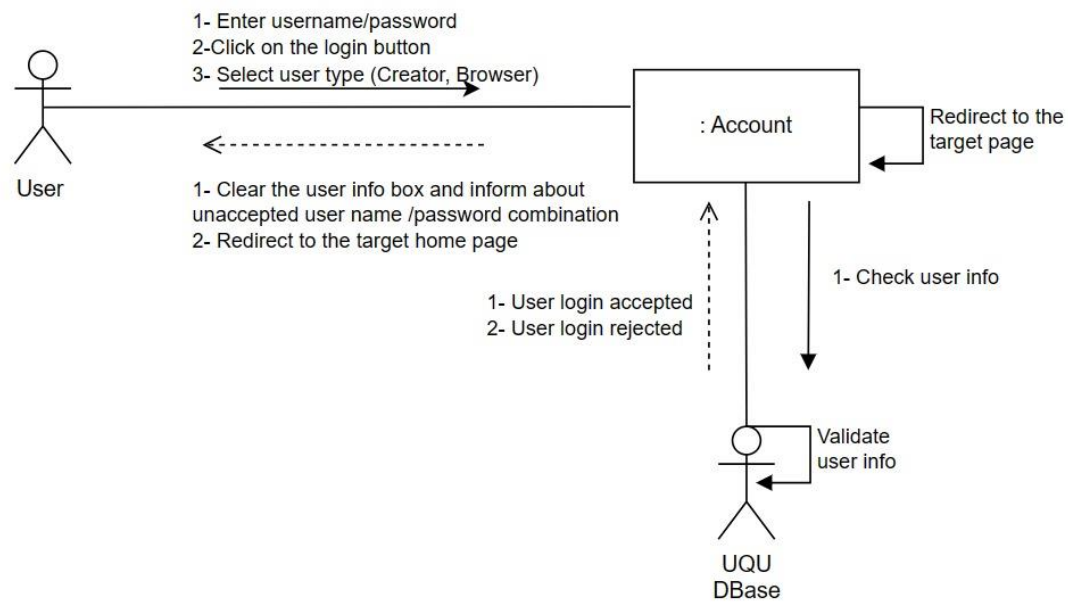
- **Study session**



- **Upload slides**



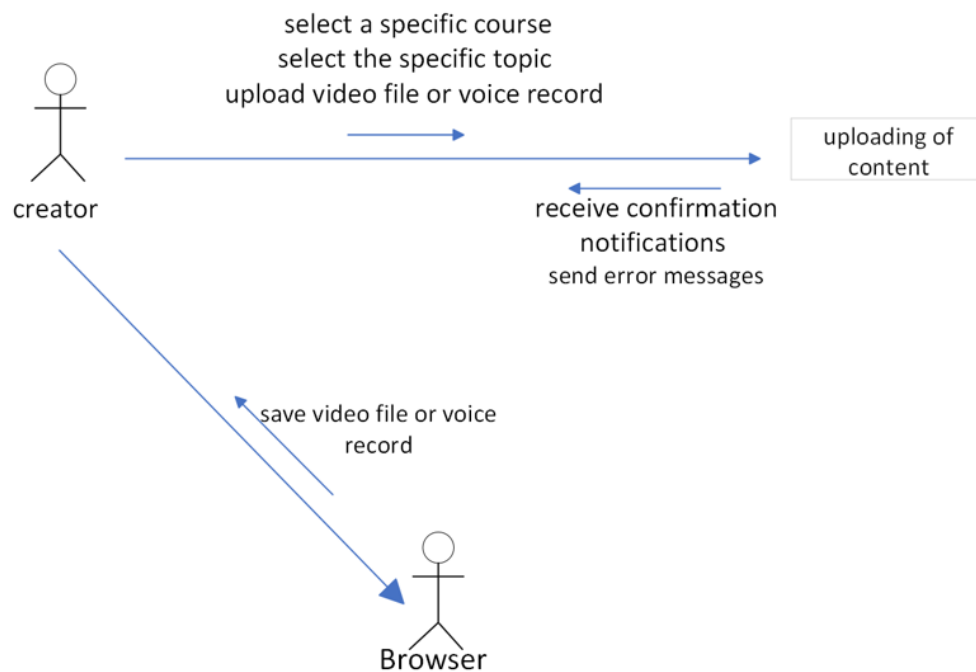
- **Communication diagrams**
- **Login**



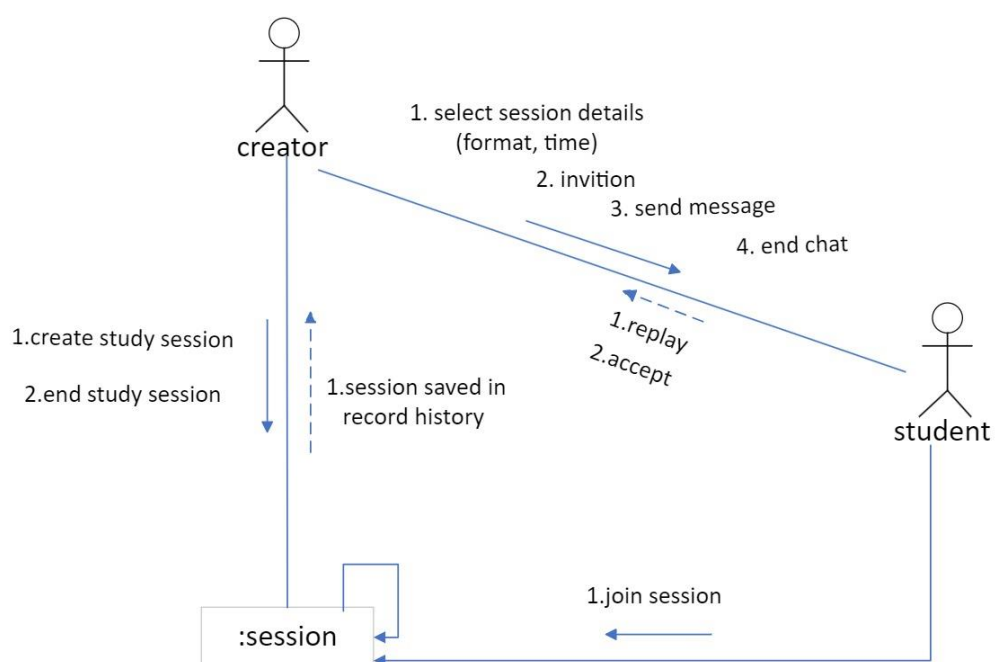
- **Crearte content**



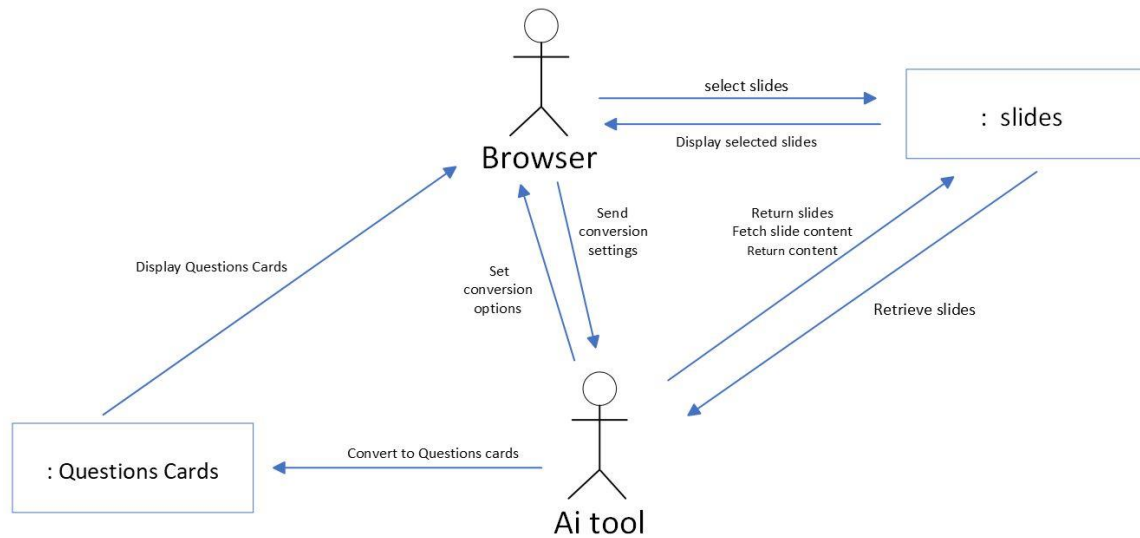
• Upload content



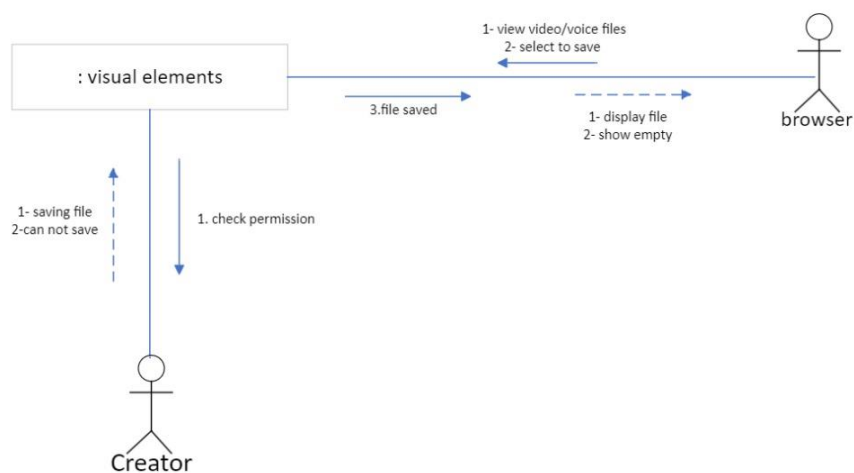
• Study session



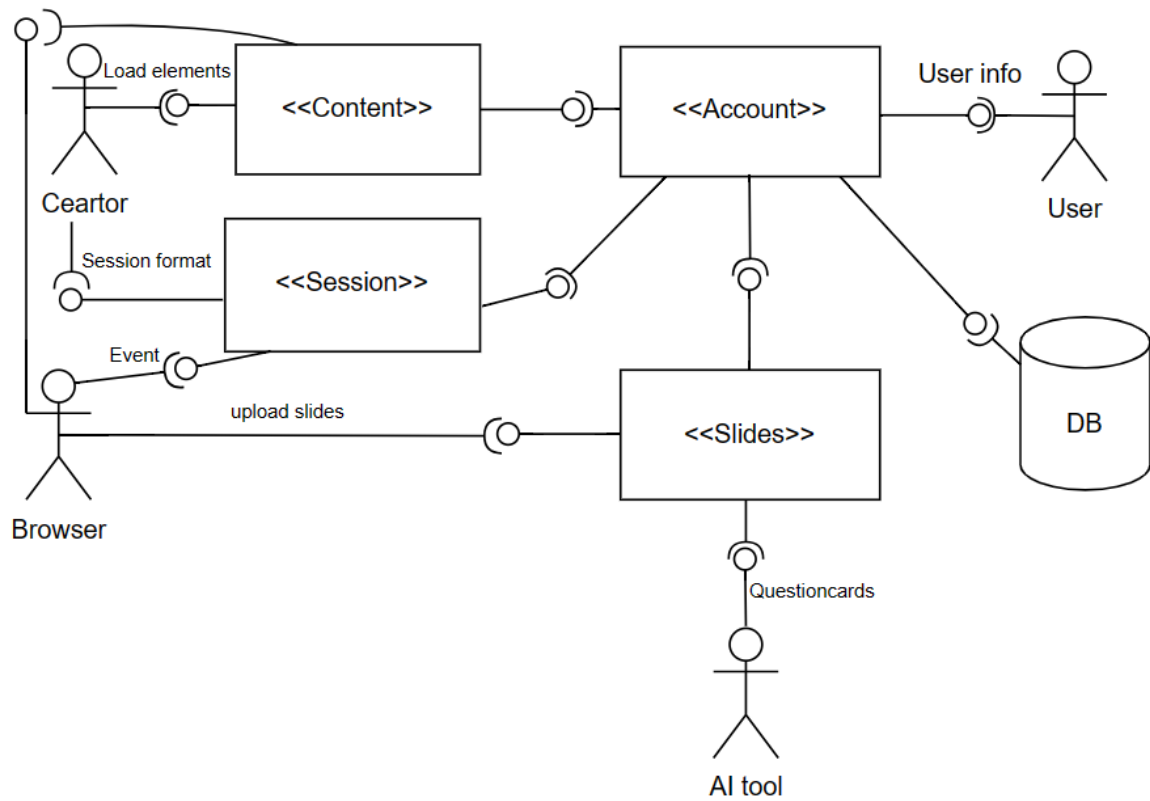
- **Upload slides**



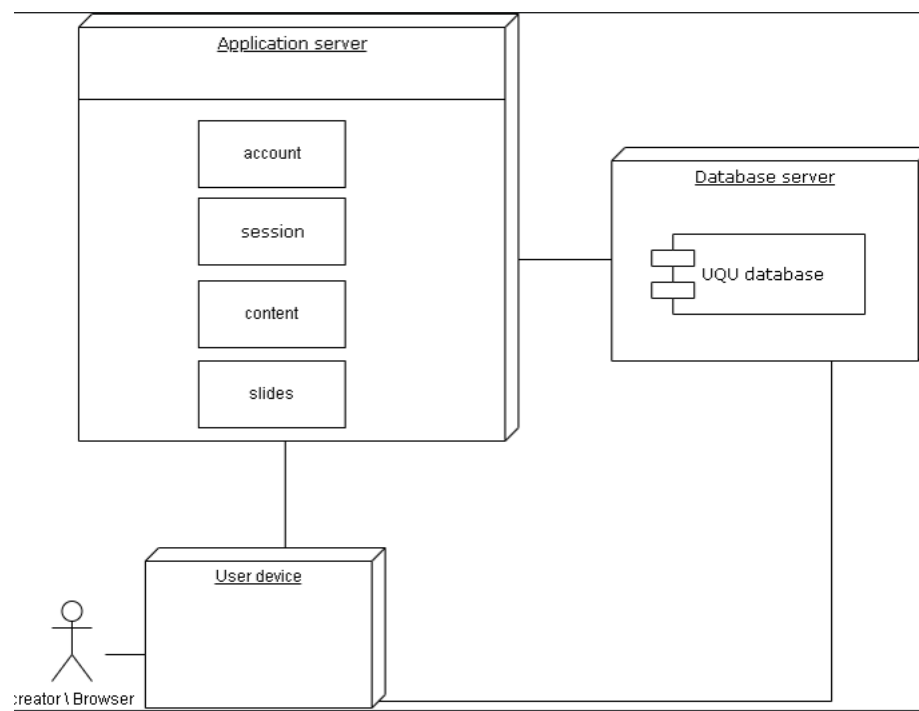
- **View content**



- **Component diagrams**



- **Development diagrams**



- Meeting minute table

Date of meetings	Days	time	Work	Members
2024/03/06	Wednesday	8:00am -3:45pm	Searching for clients to solve their problem.	All members
2024/04/25	Thursday	9:00am - 6:00pm	Adding and Rewriting the requirements.	رتاج - لمى - رغد. (سمية لم تكن موجودة كل الوقت)
2024/04/26	Friday	10:35am - 8:24pm	Fixing the use case diagram and adding...	رتاج - لمى - رغد. (سمية غائبة)
2024/04/29	Monday	10:01am - 11:58pm	Fixing and Working on the activity diagram.	All members
2024/05/01	Wednesday	3:28pm - 11:56pm	Working on sequence diagram, communication diagram, class diagram and the document	All members

- **Individual task for each member**

Lama Khalid Salawati

1- Functional Requirements

- Log in.
- Create content.
- Upload content.

2- Non- Functional Requirements

- Performance
- Reliability
- Usability

3- UML Diagram

- 1, 2 Use Cases
- 2 tables of use case description, log in and upload content.
- Log in (activity)
- Log in (sequence)
- Log in (communication)
- Account (class diagram)
- Study session (state diagram)
- Component diagram
- The document

I'm Raghad Nedal

That's what I did

1- one of the functional requirements (user and system requirement) for question cards

2- context model

3- Use case description table (create content)

Sequence diagram (create content, upload content)

4-active diagram (create content, upload content)

5- state diagram (create content)

6-communications diagram (create content, upload content)

7- deployment diagram

I'm Sumayya Mohammad

That's what I did.

- Functional requirement: -Upload slides
- three system requirements for the log in
- Use case description table: -upload slides
- Activity diagram: -upload slides, upload content
- Sequence diagram: -upload slides
- Communication diagram: -upload slides
- class diagram: -slides
- State diagram: -Upload slides

I am retaj mujahed and I worked on:

- I wrote (study session , view content) functional requirement.
- I wrote 2 tables of use case description.
- context diagram.
- 2 activity diagram(study session , view content).
- 2 sequence diagram(study session, view content).
- 2 communication diagram(study session, view content).
- 3 class diagram (session, content, slides)
- 1 state diagram(log in).
- I made the meetings dates schedule.