Augcast: Design Use Cases

AN AUGMENTED PODCAST EXPERIENCE

Team

Boring And Nothing Aesthetically Notable Acronym

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AUTH 1: Login

Description:

The user shall login with their UCSD credentials to use this application.

Actors:

Everyone

User Goals:

The user needs to log in to their account to use Augcast.

Desired Outcome:

The user is authenticated with their UCSD credentials.

Dependent Use Cases:

None.

Priority:

High

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The user has the valid UCSD credentials.

Trigger:

The user wants to use the service provided by Augcast.

Workflow for Design Use Case:

- 1. The frontend shall display the login form for the user.
- 2. The user shall type in the correct username and password.
- 3. The user shall click "LOG IN" button.
- 4. The frontend will send a request to the react controller's login API.
- 5. The react controller shall create an SSH session with UCSD's ieng6 server and authenticate the given username and password and shall respond to the frontend's POST request with success.
- 6. The frontend shall display the home page for the user once it receives success from the react controller.

Alternate Paths for Design Use Case:

- 1. The frontend shall display the login form for the user.
- 2. The user shall type in an incorrect username and password combination.
- 3. The user shall click "LOG IN" button.
- 4. The frontend will send a POST request to the react controller's login API.
- 5. The react controller shall create an SSH session with UCSD's ieng6 server and fail to authenticate the given username and password and shall respond to the frontend's POST request with failure.
- 6. The frontend shall display an error message and will not log the user in to their homepage.

AUTH 2: Logout

Description:

The user shall have the option to log out when using this app.

Actors:

Everyone

User Goals:

The user needs to log out of their account to secure their personal data.

Desired Outcome:

The user is successfully logged out without the worry of leaking personal info.

Dependent Use Cases:

AUTH 1

Priority:

High

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The user is logged in.

Trigger:

The user wants to stop using Augcast.

Workflow for Design Use Case:

- 1. The user shall click the "Log out" button.
- 2. The fronend shall discard the current user information stored in the Redux state, effectively forgetting about the logged in user.
- 3. The frontend shall navigate the user to the login page.

Alternate Paths for Design Use Case:

ER 1: View List of QAs of the lecture

Description:

user shall be able to reveal a list of all Q&As as marked by the corresponding lecture.

Actors:

Everyone

User Goals:

The user wants to have a look at all the Q&As of the current lecture.

Desired Outcome:

All Q&As of the current lecture are listed.

Dependent Use Cases:

NAV 2 or NAV 6 $\,$

Priority:

Low

Progress Status:

Deferred

Test Phase Status:

Deferred

Pre-Conditions:

1. The user is in the lecture page.

Trigger:

The user wants to view the Q&A list of the lecture.

Workflow for Design Use Case:

- 1. The user shall navigate to a specific lecture.
- 2. The react controller shall query the database for all Q&As associated with selected lecture along with lecture's meta data and media information.
- 3. The react controller shall send the repective data to frontend.
- 4. The frontend shall display all queried information as a list to the user.

Alternate Paths for Design Use Case:

ER 2: View Slide-specific Questions

Description:

The user shall be able to view all the Q&As posted to the current slide.

Actors:

Everyone

User Goals:

The user wants to view all the questions corresponding to a certain slide of the lecture.

Desired Outcome:

The questions posted to a slide are displayed to the user.

Dependent Use Cases:

SYNC 1

Priority:

Low

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

- 1. The user has selected a certain lecture of a course.
- 2. The slides of that lecture have been uploaded.
- 3. The slide the user wants to view the questions of has been clicked.

Trigger:

The user wants to view what questions their peers' have for a certain slide.

Workflow for Design Use Case:

- 1. The user shall click the slide with an associated timestamp that they want to view the questions for.
- 2. The frontend React controller shall query the database to successfully retrieve all the questions related to the slide.
- 3. The frontend shall present the requested list of questions.

Alternate Paths for Design Use Case:

Description:

user shall be able to view all Q&As posted to the current page, both pending and resolved.

Actors:

Everyone

User Goals:

The user wants to view all the Q&As asked during a certain part of the stream.

Desired Outcome:

The user sees the Q&As as they view the stream.

Dependent Use Cases:

SYNC 1

Priority:

Medium

Progress Status:

Deferred

ER 3: View In-Stream QAs

Test Phase Status:

Deferred

Pre-Conditions:

1. The video has begun to play.

Trigger:

The user wants to view the questions asked during a certain part of the podcast.

Workflow for Design Use Case:

- 1. The user shall click the "In-steam Q&A" button.
- 2. The frontend shall send the request to the react controller.
- 3. The react controller shall update date the "inStreamER" to true.
- 4. The react controller shall update the Q&As as the video plays.
- 5. The frontend shall reflect the updates.

Alternate Paths for Design Use Case:

ER 4: View the User-Posted Answers to Slide-Specific Questions

Description:

The user shall be able to see the details (answers) of all questions of a specific slide

Actors:

Everyone

User Goals:

The user wants to view the answers to all the questions corresponding to a certain slide of the lecture.

Desired Outcome:

Any posted answers to the questions posted to a slide are displayed to the user.

Dependent Use Cases:

 $\mathrm{ER}\ 2$

Priority:

Low

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

- 1. The user has selected a certain lecture of a course.
- 2. The slides of that lecture have been uploaded and the synchronization has been completed.
- 3. The slide the user wants to view the answers to the questions of has been clicked.

Trigger:

The user wants to view a certain Q&A in detail.

Workflow for Design Use Case:

- 1. The user shall click on a specific Q&A listed in frontend.
- 2. The frontend shall send confirmation to react controller.
- 3. The react controller shall query the database and sends the information of the selected request to the frontend.
- 4. The frontend shall display the page showing the title and description of the Q&A to the user.

Alternate Paths for Design Use Case:

ER 5: Post an Answer to a Question

Description:

The user shall be able to provide answers in the Q&As list.

Actors:

Everyone

User Goals:

The user wants to respond to other user' questions.

Desired Outcome:

The new answer is added to the Q&As list.

Dependent Use Cases:

 $\mathbf{ER}\ 4$

Priority:

Low

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The user shall be in the detail page of Q&A.

Trigger:

The user wants to respond to a question.

Workflow for Design Use Case:

- 1. The user shall select a lecture to view.
- 2. The frontend loads the lecture, slides and Q&As on the page.
- 3. The user shall choose to respond to an Q&A by clicking the 'respond' button corresponding to the request.
- 4. The user shall type their response and click 'submit'.
- 5. Thereact controllersend data to database.
- 6. database stores the user's response and username.
- 7. The response to the question is now displayed on the frontend to all user.

Alternate Paths for Design Use Case:

Alternate 1: Perform Workflow steps 1-3. 4. The user shall type nothing in their response and click 'submit'. 5. The frontend displays an error message because of empty input. Alternate 2: Perform Workflow steps 1-3. 4. The user shall click 'cancel'. 5. The frontend discards any input and collapses the question thread.

ER 6: View Edit History

Description:

user shall be able to see the edit history of an Q&A and its response.

Actors:

Everyone

User Goals:

The user wants to see the previous versions of the responses in case the last editor makes a mistake in editing.

Desired Outcome:

The user sees the entire edit history of the chosen Q&A.

Dependent Use Cases:

ER 4

Priority:

Medium

Progress Status:

Deferred

Test Phase Status:

Deferred

Pre-Conditions:

1. The user is viewing an Q&A.

Trigger:

The user wants to compare the different versions of the Q&A

Workflow for Design Use Case:

- 1. The user shall click the tab "View History".
- 2. The react controller shall receive the request from the user.
- 3. The backend shall query the data to find the corresponding Q&As history.
- 4. The react controller shall send the result Q&A to the front end.
- 5. The frontend shall render the "View History" page.

Alternate Paths for Design Use Case:

Description:

The user shall be able to submit a Q&A during podcast playback with a specific question. The request will be visible throughout the timeframe of the current slide.

Actors:

Everyone

User Goals:

The user wants to see answers from others to solve a problem that the don't understand.

Desired Outcome:

The new question is submitted and displayed under the podcast video.

Dependent Use Cases:

SYNC 1

Priority:

Low

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The user has clicked on a certain slide.

Trigger:

The user wants to get elaboration on a problem from others.

ER 7: Submit New Questions

Workflow for Design Use Case:

- 1. The user shall click on the button that indicates posting a new question.
- 2. The frontend shows a form with a input field, a "Submit" button and a "Cancel" button
- 3. The user shall enter the details of their question.
- 4. The user shall hit the "Submit" buttom.
- 5. The frontend shall send the contents to the React controller.
- 6. The React controller shall update the database with corresponding contents.
- 7. The frontend shall then reflect the change in the database.

Alternate Paths for Design Use Case:

- 1. Perform Workflow step 1;
- 2. The user shall not enter any text for the details of their question;
- 3. The user shall hit the "Submit Request" buttom;
- 4. The system shall hide the textbox and buttons, and display a dialog box warning user about the empty input.
- 5. The user shall click on the "OK" button to dismiss the message.
- 6. The system shall close the dialog box and display no changes on the previous screen.
- 7. Perform Workflow steps 1 through 3;
- 8. The user shall hit the "Cancel" buttom;
- 9. The system shall bring the user back to the previous screen without making any changes.

Design Use Case 10^{-1}

Description:

user shall be able to report inappropriate posts so that the instructor would be notified.

Actors:

Everyone

User Goals:

The user only wants to see the appropriate posts that are related to the class.

Desired Outcome:

The Q&A is set as inappropriate and the instructor is notified.

Dependent Use Cases:

ER 4

Priority:

Medium

Progress Status:

Deferred

Test Phase Status:

Deferred

ER 8: Flag Inappropriate Posts

Pre-Conditions:

1. The user is in the detail page of Q&A.

Trigger:

The user does not want to see the inappropriate posts.

Workflow for Design Use Case:

- 1. The user shall select the inappropriate button on the right corner of an Q&A.
- 2. The frontend shall prompt the user for confirmation message in a pop-up window: "Are you sure you want to flag this post as inappropriate?".
- 3. The user shall select "Yes".
- 4. The react controller shall set the status of inappropriate of the post to true in the database.
- 5. The frontend shall close the pop-up window and bring the user back to the previous page.

Alternate Paths for Design Use Case:

- 1. Perform the Workflow steps 1 to 2;
- 2. The user shall click "Cancel" button.
- 3. The system shall return to the detail page of Q&A

Design Use Case 11^-

ER 9: View All Inappropriate Flags

Description:

Instructor shall be able to see the list of Q&As marked as inappropriate.

Actors:

Instructor

User Goals:

The instructor wants to handle inappropriate Q&As.

Desired Outcome:

The elaborate requests with innapropriate flags are displayed.

Dependent Use Cases:

NAV 7

Priority:

Medium

Progress Status:

Deferred

Test Phase Status:

Deferred

Pre-Conditions:

1. The instructor is logged in.

Trigger:

The instructor wants to handle inappropriate requests.

Workflow for Design Use Case:

- 1. The instructor shall click the tab "Inapproparite Flag"
- 2. The frontend shall send the request to the react controller.
- 3. The react controller shall query the database to find all the inappropriate Q&As.
- 4. The react controller shall send the inappropriate Q&As to the front end.
- 5. The frontend shall render the inappropriate Q&As to display.

Alternate Paths for Design Use Case:

ER 10: Remove Submitted Questions

Description:

The user shall be able to remove the questions submitted by themselves.

Actors:

Everyone

User Goals:

The user wants to remove their questions.

Desired Outcome:

The question is removed.

Dependent Use Cases:

 ER 4 and ER 7

Priority:

Low

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

- 1. The user has submitted a question.
- 2. The current Q&As list contains the question to be removed.

Trigger:

The user wants to remove a question submitted by themselves.

Workflow for Design Use Case:

- 1. The user shall click on the "Delete" button.
- 2. The React controller sends the 'update' request to database to remove the question.
- 3. The frontend shall display the previous screen without the deleted question.

Alternate Paths for Design Use Case:

ER 11: Remove Submitted Answers

Description:

The user shall be able to remove the answers that they submitted.

Actors:

Everyone

User Goals:

The user wants to remove their answer.

Desired Outcome:

Their answer is removed.

Dependent Use Cases:

ER 4 and ER 5 $\,$

Priority:

Low

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

- 1. The user has submitted an answer.
- 2. The lecture slide's Q&A list contains the answer that the user wants to remove.
- 3. The user is the author of the answer they want to remove.

Trigger:

The user wants to remove an answer they submitted.

Workflow for Design Use Case:

- 1. The user shall click on the "Delete" button by their answer.
- 2. The react controller sends the 'update' request to database to remove the answer.
- 3. The frontend shall no longer display the deleted answer and will collapse the question thread.

Alternate Paths for Design Use Case:

ER 11: Endorse a Response to an QA

Description:

Instructor shall be able to endorse a elaboration response by either providing/editing a response, or click on an endorsement button, locking edit option for students.

Actors:

Instructor

User Goals:

The instructor wants to endorse a student response to an Q&A.

Desired Outcome:

The correct student response is highlighted as endorsed by an instructor.

Dependent Use Cases:

ER 4 and ER 5 $\,$

Priority:

Low

Progress Status:

Deferred

Test Phase Status:

Deferred

Pre-Conditions:

- 1. The instructor is in the detail page of an Q&A.
- 2. The Q&A has been responded by a student.

Trigger:

The instructor wants to endorse a certain answer so that students know that it is reliable.

Workflow for Design Use Case:

- 1. The instructor shall click the "Endorse " button.
- 2. The frontend shall pop a window for confirmation with "Confirm" and "Cancel" buttons.
- 3. The instructor shall click the "Confirm" button.
- 4. The react controller shall set the status of endorse of the Q&A to true.
- 5. The frontend shall close the pop-up window and display the previous page.

Alternate Paths for Design Use Case:

ER 12: Overview of All Pending Questions

Description:

The instructor shall have access to a list of all pending questions.

Actors:

Instructor

User Goals:

The instructor wants to view all pending questions for a certain course.

Desired Outcome:

A list of all pending questions for a certain course is displayed to the instructor.

Dependent Use Cases:

NAV 7

Priority:

High

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The instructor enters the instructor panel by clicking on the instructor icon on the right of the course title.

Trigger:

The user wants to see what topics of a certain course confuse students the most.

Workflow for Design Use Case:

- 1. The instructor shall click the tab "PEND-ING ELABORATION REQUESTS".
- 2. The frontend shall send the request to the react controller.
- 3. The react controller shall query the database to find the questions without answers.
- 4. The react controller shall send the pending questions to the frontend.
- 5. The frontend shall render the pending questions to display.

Alternate Paths for Design Use Case:

ER 13: Jump to A Specific Pending question from the Instructor Panel

Description:

The instructor shall be able to jump to a specific pending question from instructor panel.

Actors:

Instructor

User Goals:

The instructor wants to jump to a pending question to provide answers.

Desired Outcome:

The insturctor jumps to the question that they wants.

Dependent Use Cases:

NAV 7 and ER 7 $\,$

Priority:

Medium

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

- 1. The instructor is in the instructor panel screen.
- 2. The question from other users has been submitted.

Trigger:

The instructor wants to respond to an pending question.

Workflow for Design Use Case:

- 1. The instructor shall click on the "DE-TAIL" button of the question they wants to reply.
- 2. The frontend shall send the request to the react controller.
- 3. The react controller shall query the database to find the page corresponding to the question.
- 4. The react controller shall send the information to the frontend.
- 5. The frontend shall display the page corresopnding to the question.

Alternate Paths for Design Use Case:

ER 15: Ignore A Pending Question

Description:

The instructor shall be able to ignore a pending question in instructor panel.

Actors:

Instructor

User Goals:

The instructor wants to ignore a pending question.

Desired Outcome:

The specific pending question is removed from the list of pending question in the instructor panel.

Dependent Use Cases:

NAV 7 and ER 12

Priority:

Medium

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

- 1. The instructor is in the instructor panel screen.
- 2. There are questions posted in the course that have not been answered.

Trigger:

The instructor wants to ignore a pending question that is too old or no longer relevant.

Workflow for Design Use Case:

- 1. The instructor shall click on the "IG-NORE" button of the question they wants to ignore.
- 2. The frontend shall send the request to the react controller.
- 3. The react controller shall query the database to find the pending questions of the selected course.
- 4. The react controller shall set the "ignore" flag in database to true.
- 5. The react controller shall send the results to the frontend.
- 6. The front end shall display all pending questions under the pending question tab with the ignored question removed.

Alternate Paths for Design Use Case:

NAV 1: Pin, Unpin Courses and View Pinned Courses

Description:

The user shall be able to pin and unpin any course and see all courses which they pinned.

Actors:

Everyone

User Goals:

The user wants to pin a course and choose a pinned course that they want to study.

Desired Outcome:

The classes that the user pins are displayed on the top of the sidebar.

Dependent Use Cases:

AUTH 1

Priority:

High

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The user is logged in.

Trigger:

The user wants to save frequently used courses for easy access

Workflow for Design Use Case:

- 1. The user shall click the star on the lecture of the course title.
- 2. The frontend shall re-render the course list to make the pinned appear on the top.
- 3. The frontend shall send a request to the react controller with the user's information.
- 4. The react controller shall query the database to save the favorite course under the user's information.

Alternate Paths for Design Use Case:

NAV 2: Choose Course

Description:

The user shall be able to filter and select a course by searching for course number, course name or instructor name.

Actors:

Everyone

User Goals:

The user wants to choose a course.

Desired Outcome:

The lectures of the selected course are displayed to the user in the sidebar.

Dependent Use Cases:

AUTH 1

Priority:

High

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

- 1. The user is logged in.
- 2. The user has clicked the search bar to enter their search query.

Trigger:

The user wants to go to the lecture list of a certain course.

Workflow for Design Use Case:

- 1. The user shall enter keywords in the searchbar.
- 2. The frontend shall send the request to the react controller.
- 3. The react controller shall query the database to find the courses that matches the keywords.
- 4. The react controller shall send the results to the frontend. 5 The frontend shall display all the results.
- 5. The user shall select a course.
- 6. The frontend shall send a request to the react controller containing the name of this course.
- 7. The react controller shall query the database to find the lectures under this course.
- 8. The react controller shall return the list of lectures to the frontend.
- 9. The frontend shall render a list of lectures for the course that the user selected.

Alternate Paths for Design Use Case:

NAV 3: Filter Lectures with Keyword Search within a Course

Description:

The user shall be able to type in keywords to perform text search over slide content of the selected course to list only the lectures with slides that contain the keywords.

Actors:

Everyone

User Goals:

The user wants to search for the corresponding slide by the keywords of the topic they want to study for in the selected course.

Desired Outcome:

The user shall see a list of lectures that address the topic specified by the keyword search.

Dependent Use Cases:

NAV 2

Priority:

High

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The user has entered the course page they wants to study.

Trigger:

The user wants to search specific topic that they want to study for.

Workflow for Design Use Case:

- 1. The user shall enter the keywords in the search bar.
- 2. The frondend shall send the request to the react controller.
- 3. The react controller shall search in the cached data with the keywords.
- 4. The react controller shall send the matched results to the frontend.
- 5. The frontend shall render the matched lectures along with the matched slides.

Alternate Paths for Design Use Case:

NAV 4: Show Matched Texts of Slide Pages within Matched Lecture

Description:

The user shall be able to see all texts of pages containing the search term within one course after selecting the lecture listed in NAV 3.

Actors:

Everyone

User Goals:

The user wants to see the slide in the lecture that contains the contents they want to study for.

Desired Outcome:

The texts of slides that address the specified topic are displayed.

Dependent Use Cases:

NAV 3

Priority:

High

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The user has selected a specific lecture.

Trigger:

The user wants to see the slides related to some topic within a selected lecture.

Workflow for Design Use Case:

- 1. The user shall click a lecture from the list.
- 2. The frontend shall send the request to the server using the keyword inputted in NAV
- 3.
- 4. The react controller shall query the database to find the matched slides to the lecture selected.
- 5. The react controller shall send the matched slides to the frontend.
- 6. The frontend shall render the matched slides to display.

Alternate Paths for Design Use Case:

NAV 5: Browse Slides

Description:

The user shall be able to browse slides in pdf format.

Actors:

Everyone

User Goals:

The user needs to choose which specific topic (which slides) they want to study for.

Desired Outcome:

Slides are shown in the page and user is able to browse through by scolling up and down.

Dependent Use Cases:

NAV 6

Priority:

High

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The user has been shown a list of matched slides in the lecture after keyword searching.

Trigger:

The user wants to browse slides to find the one they wants to study.

Workflow for Design Use Case:

- 1. The user shall click on a slide.
- 2. The frontend shall send this request to the react controller.
- 3. The react controller shall query the database to find the timestamp in the video based on that slide that was requested.
- 4. The react controller shall request the video element in the frontend to the seek to the appropriate timestamp.
- 5. The fronend shall start the video with corresponding timestamp.

Alternate Paths for Design Use Case:

NAV 6: Select Lecture under Course to view Content

Description:

The user shall be able to select lecture to view the podcast video, as well as the slides if the slides have been uploaded and synced with the video.

Actors:

Everyone

User Goals:

The user wants to select a lecture to view the lecture with Augcast-specific functionalities.

Desired Outcome:

The podcast of the selected lecture starts to play. The slides is displayed if the lecture slides have been uploaded and synced with the video.

Dependent Use Cases:

NAV 2

Priority:

High

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The user is seeing the list of lectures within a selected course.

Trigger:

The user wants to watch a lecture podcast with enhanced functionalities.

Workflow for Design Use Case:

- 1. The user shall select a lecture from the list of lectures on the left.
- 2. The frontend shall send the request to the React controller.
- 3. The React controller shall query cached data for the media url.
- 4. The React controller shall render a video player with media url as source.
- 5. The frontend shall start to play the lecture podcast.
- 6. If the React controller sees slides url in cached data as well, it will render the PDF file on the frontend as well.

Alternate Paths for Design Use Case:

Description:

The instructor shall have the option to open the instructor panel for administrative functionalities.

Actors:

Instructor

User Goals:

The instructor needs to manage the course.

Desired Outcome:

The instructor enters into the instructor panel.

Dependent Use Cases:

AUTH 1

Priority:

Medium

Progress Status:

Completed

NAV 7: Open Instructor Panel

Test Phase Status:

Complete

Pre-Conditions:

1. The instructor has logged in with their account.

Trigger:

The instructor wants to manage the courses they teaches.

Workflow for Design Use Case:

- 1. The instructor shall click on the 'instructor tools' tab in the side-navigation panel.
- 2. The frontend displays a list of courses that the instructor is associated with.
- 3. The instructor shall select the course they want to manage.
- 4. The frontend loads the relevent course's data from the database and then displays it on the large display section adjacent to the side-navigation panel.

Alternate Paths for Design Use Case:

SYNC 1: Skip to Timestamp in Video from Slide

Description:

The user shall be able to skip to the point in the video corresponding to a specific slide.

Actors:

Everyone

User Goals:

The user wants to view the podcast at the point a certain slide appears in the video.

Desired Outcome:

Streaming of podcast successfully starts from a certain time in the video that shows the selected slide.

Dependent Use Cases:

NAV6

Priority:

High

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The scrollable list of slides has finished loading and is displayed.

Trigger:

The user wants to start watching the podcast at the time when the professor discussed a certain slide.

Workflow for Design Use Case:

- 1. The user shall select the slide in a lecture.
- 2. The frontend shall send a request to the react controller with information containing the selected slide.
- 3. The react controller shall query the database to find the video URL and timestamp of the podcast corresponding to the requested slide.
- 4. The react controller shall send the frontend the video URL and timestamp.
- 5. The frontend shall render an HTML video element streaming the given URL at the given timestamp.

Alternate Paths for Design Use Case:

SYNC 2: Provide Labeling for Slide-Video Synchronization

Description:

user shall be able to volunteer in syncing video stream and slides with provided interface. (click through the slides in pace with the video.)

Actors:

Everyone

User Goals:

The user wants to volunteer syncing the video.

Desired Outcome:

The label is displayed for everyone to jump to the part of the video corresponding to slide.

Dependent Use Cases:

SYNC 1 and ADMIN 2 $\,$

Priority:

Medium

Progress Status:

Deferred

Test Phase Status:

Deferred

Pre-Conditions:

- 1. The user has opened the podcast to watch.
- 2. The slides of the lecture are uploaded.

Trigger:

The user wants to provide labels for others to jump through the video.

Workflow for Design Use Case:

- 1. The user shall click the pause button on the video.
- 2. The user shall click on the synchonize button on the slide.
- 3. The frontend shall send the data of current timestamp to react controller.
- 4. The react controller shall save the timestamp in the database under the id of the slide.
- 5. The frontend shall send confirmation message "Your slide has been successfully labeled" to the user.

Alternate Paths for Design Use Case:

Description:

Instructor shall be able to finalize the slide synchronization for a section if the slides and playback are syncronized.

Actors:

Instructor

User Goals:

The instructor wants to finalize the slide synchronization to prevent furthur change.

Desired Outcome:

Slide and video are synchronized and finalized.

Dependent Use Cases:

SYNC 1 and SYNC 2 $\,$

Priority:

Medium

Progress Status:

Deferred

SYNC 3: Finalize Slide Labeling

Test Phase Status:

Deferred

Pre-Conditions:

- 1. The user has opened the podcast to watch.
- 2. The labels are provided by students.

Trigger:

The instructor wants to finalize the slide synchronization so that it won't be changed.

Workflow for Design Use Case:

- 1. The user shall click the "Finalize the label".
- 2. The frontend will sent this request to the server.
- 3. the server shall send the information for the label to the database. 4 the server shall send the response to the frontend about the finalized label.

Alternate Paths for Design Use Case:

SYNC 4: Display Timestamp Generating Progress for Slide-Video Synchronization

Description:

The user shall be able to check the timestamp generation process for newly uploaded slides.

Actors:

Everyone

User Goals:

The user wants to be able to check the process of generating timestamps for newly uploaded slides.

Desired Outcome:

The process of generating timestamps for newly uploaded slides is displayed.

Dependent Use Cases:

(NAV 3 or NAV 4) and ADMIN 2 $\,$

Priority:

Medium

Progress Status:

Completed

Test Phase Status:

Planned

Pre-Conditions:

- 1. The user has selected a certain course.
- 2. The slides of a certain lecture have been recently uploaded

Trigger:

The user wants to check how long they have to wait before they can watch the podcast with synchronized timestamps.

Workflow for Design Use Case:

- 1. The user shall select a lecture whose timestamp generating process is not finished.
- 2. The frontend shall send the request to the react controller.
- 3. The react controller shall query the database to find the progress for the corresponding lecture.
- 4. The react controller shall send the timestamp generating progress received from the database to the frontend.
- 5. The frontend shall display the timestamp generating progress.

Alternate Paths for Design Use Case:

ADMIN 1: Appoint Other Instructors

Description:

The instructor shall be able to search for other users and appoint them as instructors of the current course.

Actors:

Instructor

User Goals:

The instructor wants to add TA/tutors to the course and give them instructor permission.

Desired Outcome:

TAs/tutors are added to the course as instructors.

Dependent Use Cases:

AUTH 1

Priority:

Low

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The user is logged in as an instructor.

Trigger:

The instructor wants to add TAs/tutors as instructors to this course.

Workflow for Design Use Case:

- 1. The instructor shall click on the button on the left of the course page on the course title in the sidebar
- 2. The frontend shall render a pop-up window as the instructor panel
- 3. The instructor shall type in the name of the tutors/TAs in the search field
- 4. The react controller shall query the database and give back the result of search.
- 5. The instructor shall click on the name of the tutors/TAs to add
- 6. The react controller shall store the new instructor in the database.
- 7. The frontend shall show the selected tutors/TAs shall in the upper section of the panel and the corresponding accounts shall have the instructor permission

Alternate Paths for Design Use Case:

ADMIN 2: Upload Slides for Lecture

Description:

The user shall be able to upload lecture slides to corresponding lectures.

Actors:

Everyone

User Goals:

The user wants to upload the slides for a certain lecture.

Desired Outcome:

The slides are uploaded to the database storage and can be viewed by the user.

Dependent Use Cases:

NAV 2 or NAV 4 $\,$

Priority:

Low

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The student is logged in.

Trigger:

The user wants to upload the slides so that everyone can view them along with the playback the podcast.

Workflow for Design Use Case:

- 1. The user shall click Upload button.
- 2. The frontend shall render a pop-up window for the instructor to choose files in their local computer.
- 3. The user shall choose the files to be uploaded.
- 4. The react controller shall store the file in the database.
- 5. The frontend shall close the pop-up window and display the message "Slides have successfully been uploaded."

Alternate Paths for Design Use Case:

- 1. Perform workflow 1 through 2;
- 2. The instructor shall click on "Cancel";
- 3. The system shall navigate the user to the previous page with no slides uploaded.

ADMIN 3: View Playback Analytics

Description:

Instructors shall be able to see a data summary of the study behavior of students with regard to the time spent on each part of the lectures.

Actors:

Instructor

User Goals:

The instructor wants to find out which part of the lecture is viewed by students more often.

Desired Outcome:

The summary of playback data for a lecture is displyed.

Dependent Use Cases:

SYNC 1

Priority:

Medium

Progress Status:

Deferred

Test Phase Status:

Deferred

Pre-Conditions:

1. The video streaming is started.

Trigger:

The instructor wants to see which part of the lecture is often re-played by students.

Workflow for Design Use Case:

- 1. The instructor shall click the "View Playback Analytics" button.
- 2. The frontend shall send this request to the react controller.
- 3. The react controller shall query the database to find the playback analytics of a specific lecture based on the lecture that was requested.
- 4. The react controller shall send the information back to the frontend.
- 5. The frontend shall display the data of playback analytics to the instructor in the form of graphs and tables on a new page.

Alternate Paths for Design Use Case:

None

ADMIN 4: Remove Incorrect Slides

Description:

The instructor shall be able to remove slides if the incorrect slides were uploaded to a certain lecture

Actors:

Instructor

User Goals:

The instructor wants to remove incorrectly uploaded slides from a lecture.

Desired Outcome:

The incorrect slides are removed from the lecture and users are able to upload PDFs to it again

Dependent Use Cases:

AUTH 1 and NAV 6

Priority:

Medium

Progress Status:

Completed

Test Phase Status:

Complete

Pre-Conditions:

1. The instructor has logged in with the instructor account.

- 2. The incorrect slides have been uploaded to a lecture.
- 3. The corresponding lecture page has been opened.

Trigger:

The instructor would like to remove an incorrect PDF.

Workflow for Design Use Case:

- 1. The instructor shall click on the check mark button on the right of the lecture listing in the sidebar.
- 2. The frontend shall display a prompt allowing the instructor to remove slides.
- 3. The instructor shall choose to delete the slides.
- 4. The frontend will replace the delete PDF button with two buttons – confirm and cancel – to confirm the instructor's intent
- 5. The instructor shall select the confirm option.
- 6. The React controller shall update the database to delete the slides with a Firebase update() call.

Alternate Paths for Design Use Case:

Alternate 1: Perform Workflow steps 1-2. 3. The instructor shall click the Close button. 4. The frontend will close the modal. Alternate 2: Perform Workflow steps 1-4. 5. The instructor chooses the cancel button. 6. The frontend will close the modal.