

DESIGNS DOCUMENT

Hubba - Collaborative System

Version 2.1

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Github Repository:

<https://github.com/DevelopmentHellaHell/SeniorProject>

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Revision History

Version	Overview	Date
v.1.0	First Draft	03/13/2023
v.2.0	Complete change of file storage system to use AWS S3, all use-cases modified	04/7/2023
v.2.1	Failure cases more thoroughly expanded upon.	4/12/2023

Table of Contents

Table of Contents	3
High-Level Design	4
Collaborator Profile Visibility	4
Upvote System	4
Flow of execution	5
Low-Level Design	7
Successful Use Case(s)	8
Failure Use Case(s)	17

High-Level Design

Collaborator Profile Visibility

The visibility of the profile will be represented with a boolean bit in the database. The default value of all collaborator profiles' visibility is 0.

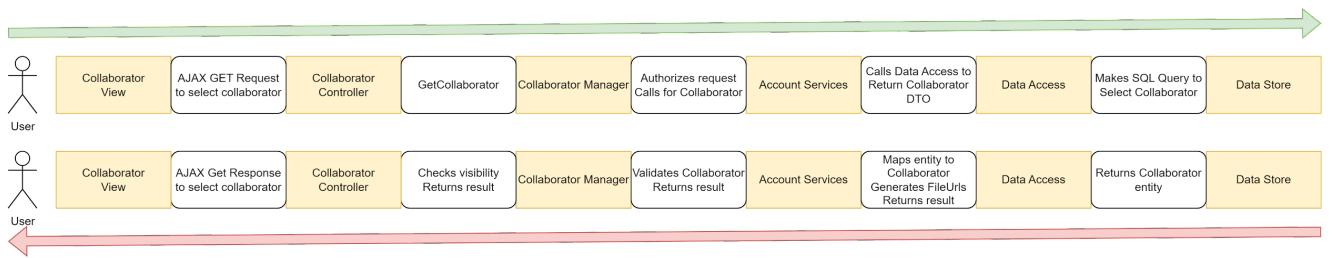
Upvote System

A verified user must be able to upvote another profile and keep track of who they have upvoted. Since there is a many-to-one relationship between a collaborator page and the upvotes it receives, it is easier for the children of the relationship (the voting party) to keep track of whether or not a particular collaborator page has been upvoted. For implementation, the collaborator page will keep track of how many votes it has received by counting its votes on request in the UserVotes database but the user who votes will keep track of whether or not they have voted and which pages they have voted on using the junction table.

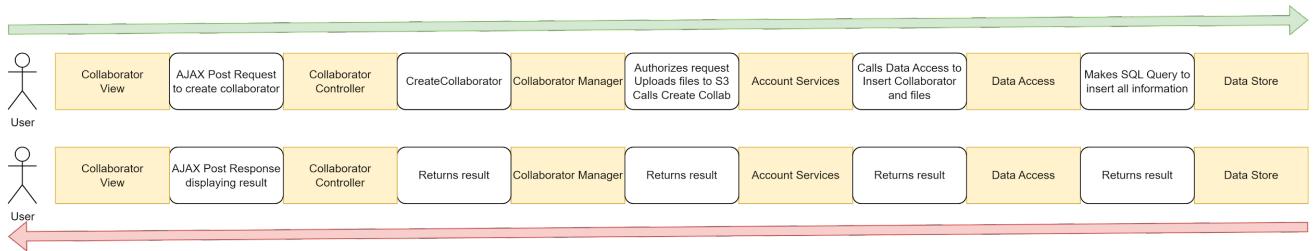
A user who uploads a collaborator profile will be able to vote on their own page similar to any other user.

Flow of execution

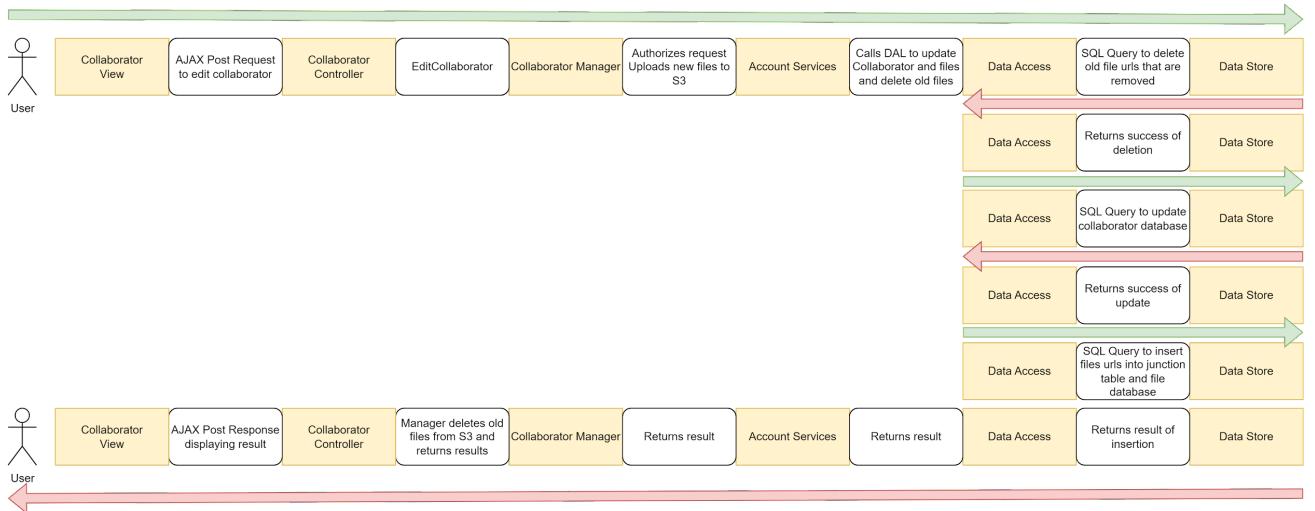
1. Activity flow: user requests collaborator view



2. Activity flow: user creates a collaborator profile

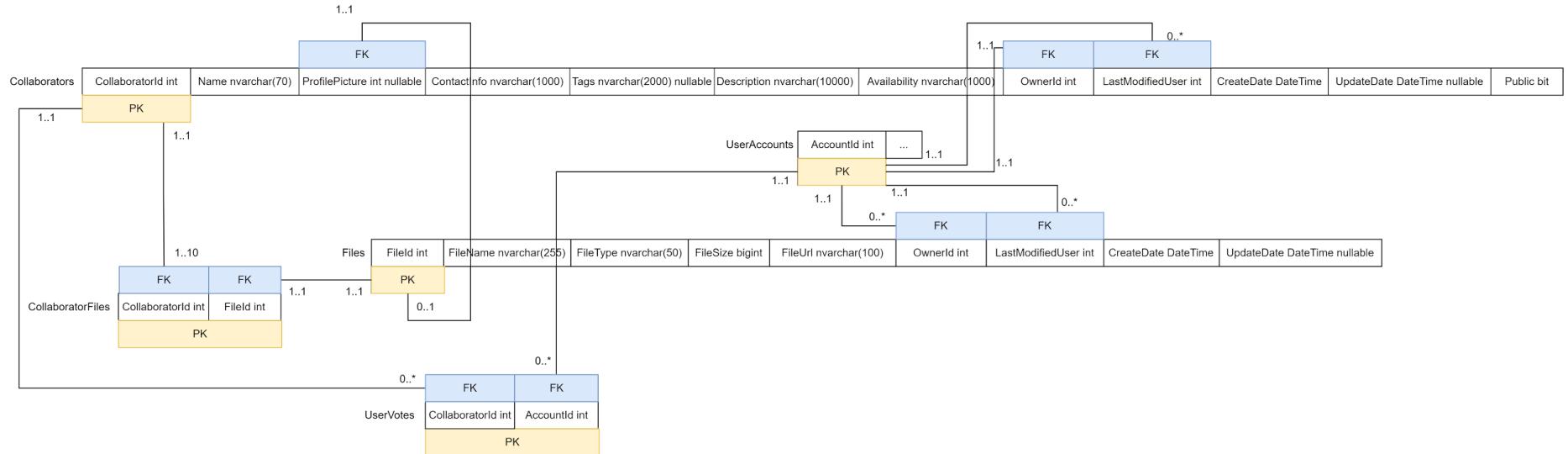


3. Activity flow: user edits a collaborator profile



SQL Database

Note: The UserAccounts table is located in the Users database and the Files table is similarly located in the Files database. All other tables are located in the Collaborators database.



Amazon AWS S3 File Structure

The pfp files are located in the “/collaborator/{collabId}/pfp/ directory”

All other collaborator files are located in the “/collaborator/{collabId}/file directory”

Low-Level Design

User story: As a verified user or admin, I can create and publish a collaborator profile. I can upload pictures, write descriptions, or edit my collaborator profile. I can vote on other users' collaborator profiles. As any user, I can view other users' public collaborator profiles.

Business rules:

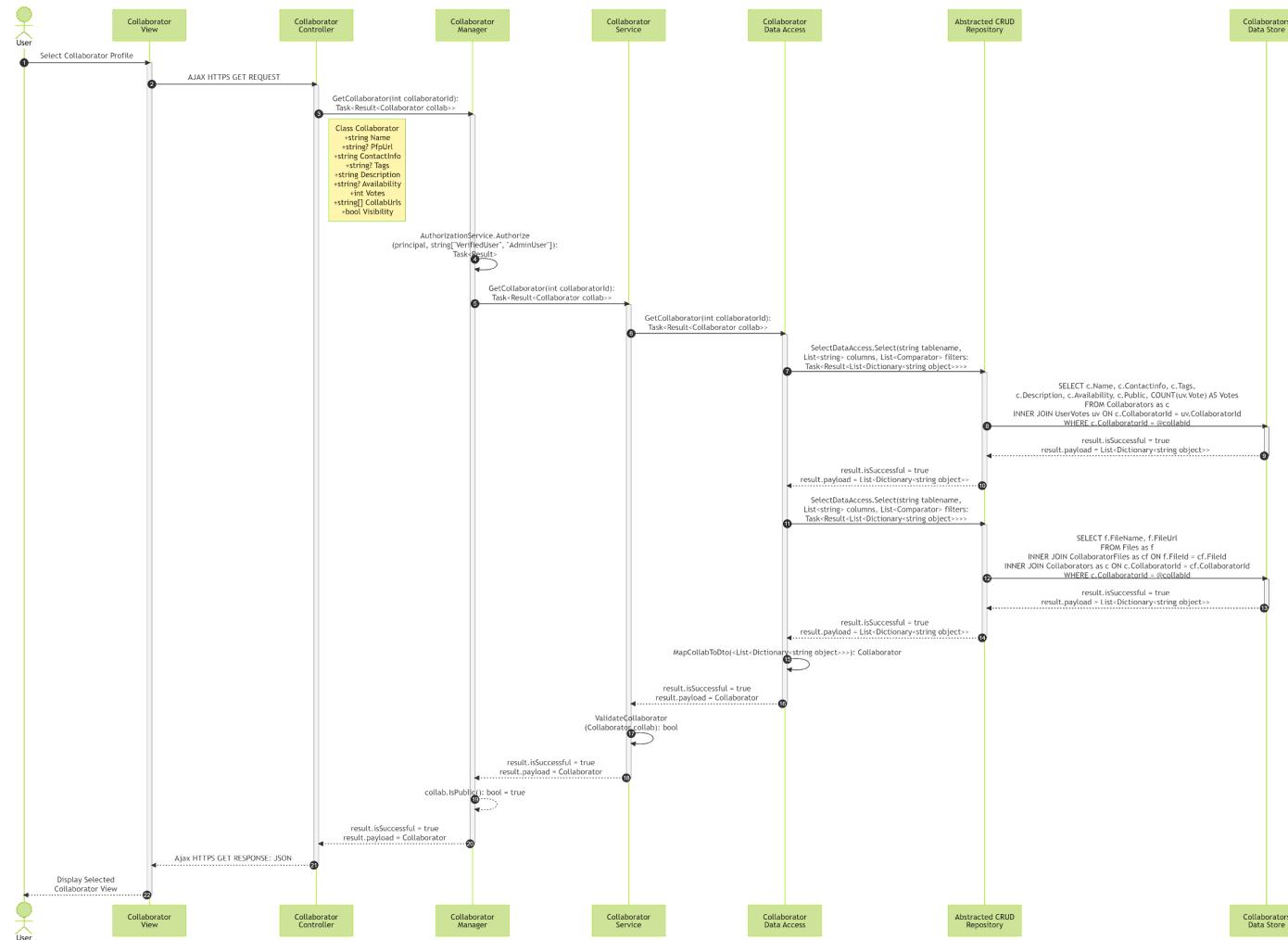
- The following input boxes must meet these requirements:
 - Name - 70 characters
 - Profile Picture (optional) - 1 image
 - Contact Information - maximum of 1000 characters
 - Expertise Tags (optional) - maximum of 20 tags, each tag having a maximum of 100 characters
 - Description - maximum of 10000 characters
 - Uploaded Files - , minimum of 1 image, maximum of 10 images
 - Availability (optional) - maximum of 1000 characters
- Collaborator contact information and description input boxes will support markdown text.
- Only publicly visible collaborator pages will be shown to non-owner users
- Only an owner may edit their collaborator page

Preconditions:

1. User must be logged in for all the following success cases
2. User must be on collaborator view for all the following success cases
3. A user can only create, edit, or remove their own collaborator profile.

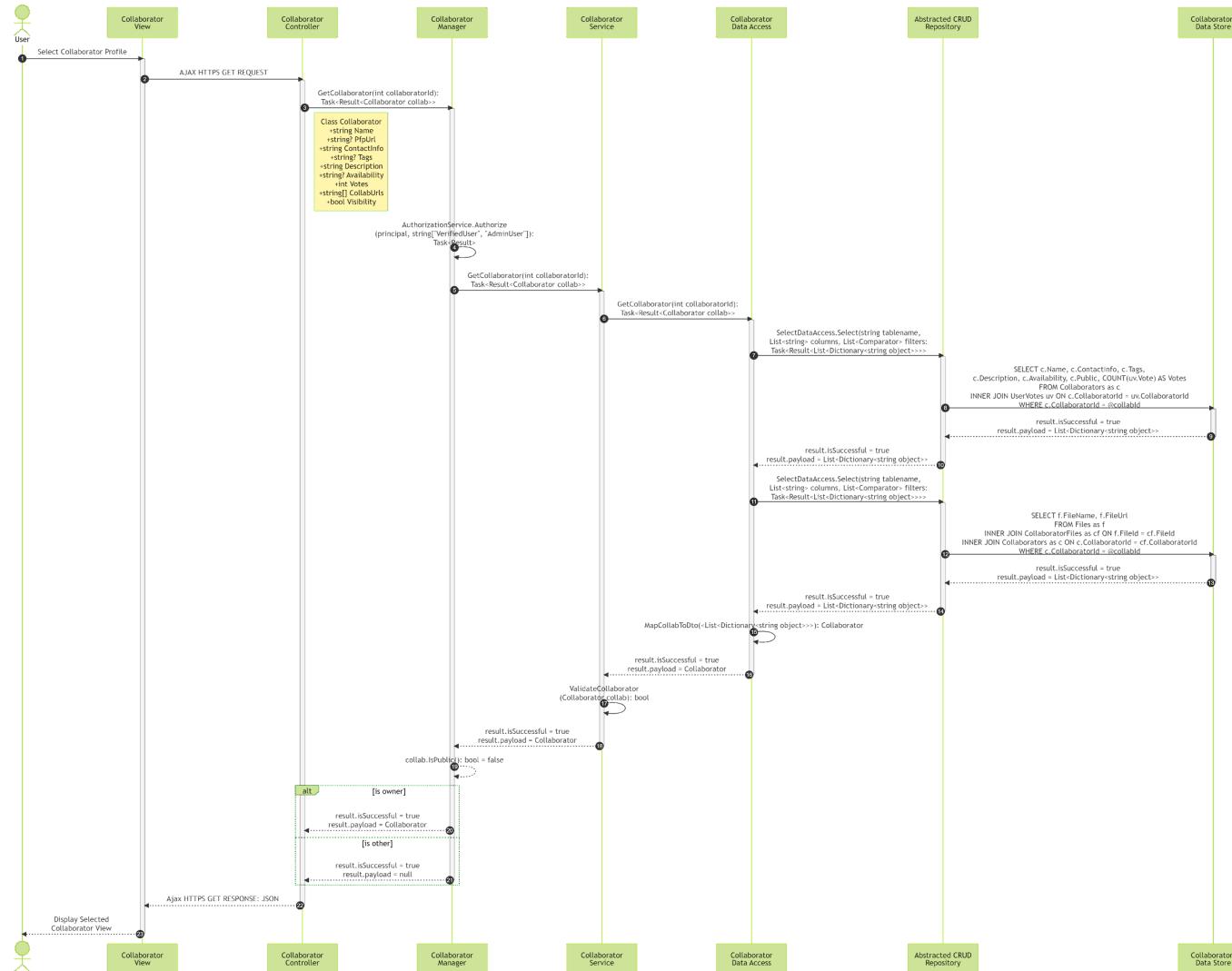
Successful Use Case(s)

1. User selects a public collaborator profile to view. The user view is changed to display the collaborator information along with all attached images and collaborator profile picture, if they exist.



Note: Step 8 selects the collaborator info, vote count and step 12 selects the file info

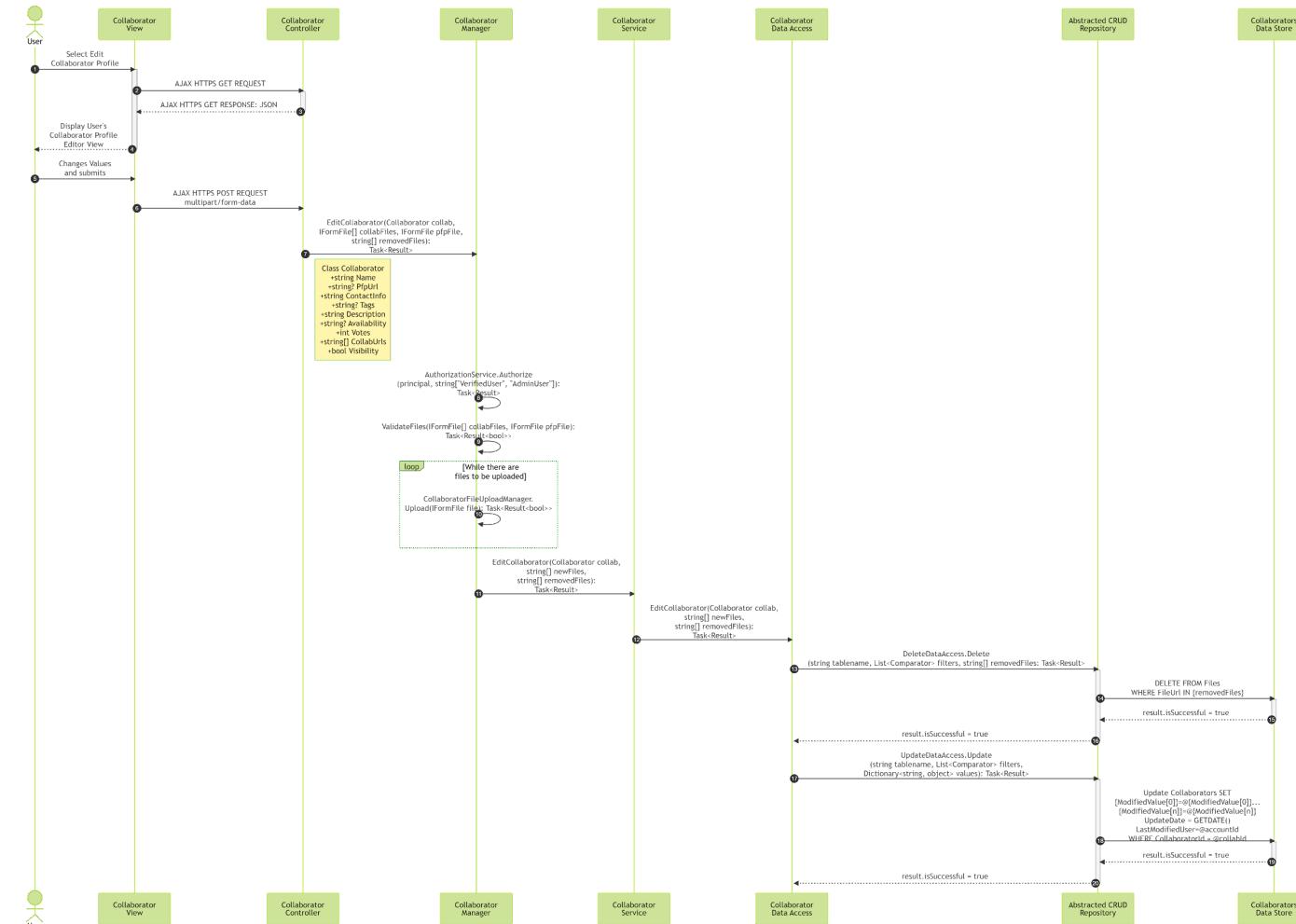
2. User selects a public collaborator profile to view. The profile is hidden from public view.



Note: In the case of a successful null collaborator payload, the page will display "Sorry, but you are unable to view this page."

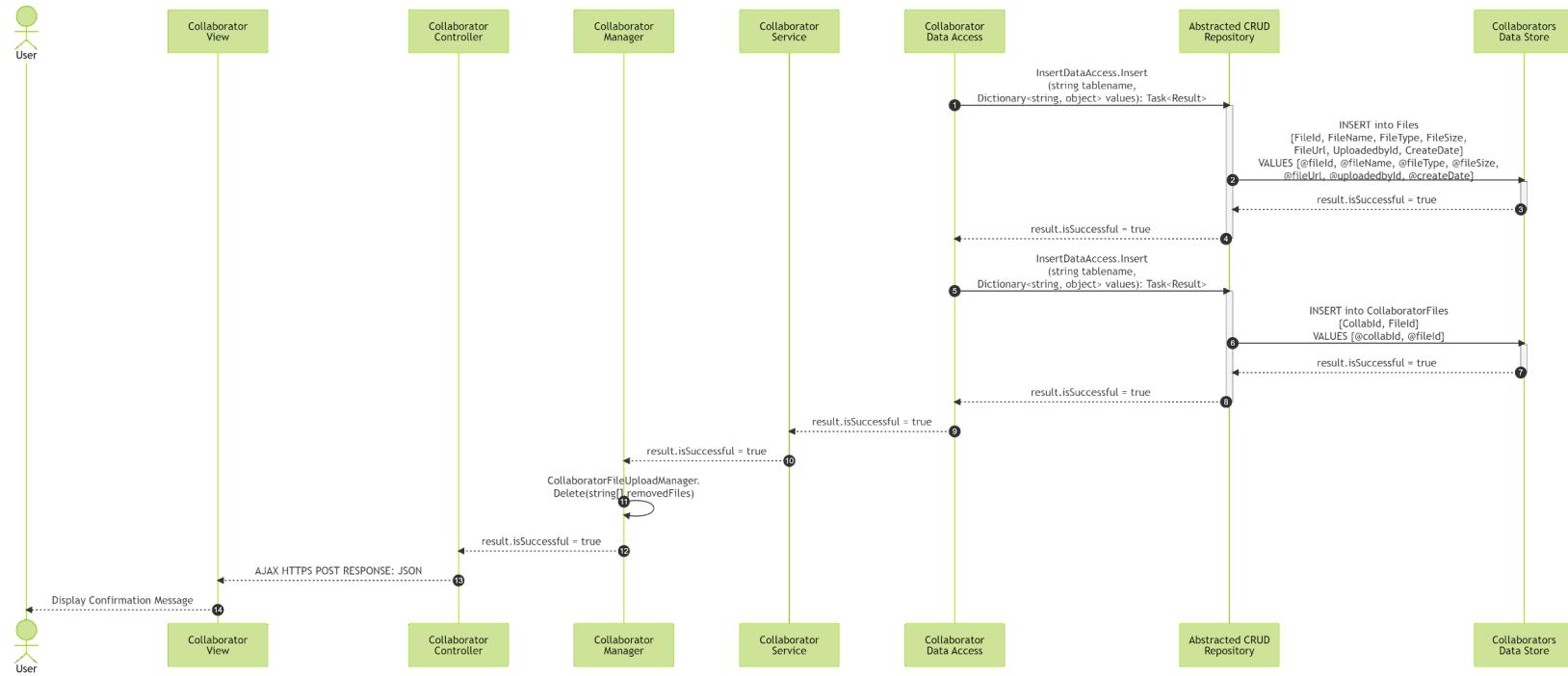
3. User edits collaborator profile.

The collaborator profile is viewable to all users and reflects the changed fields. The user must have an existing profile. The user executes a get request to display their current collaborator information on the editor view, then a post request is executed to submit changes made to their form in the client.



part 1 of 2: Upload file to AWS S3, delete info about file from sql store, update collaborator

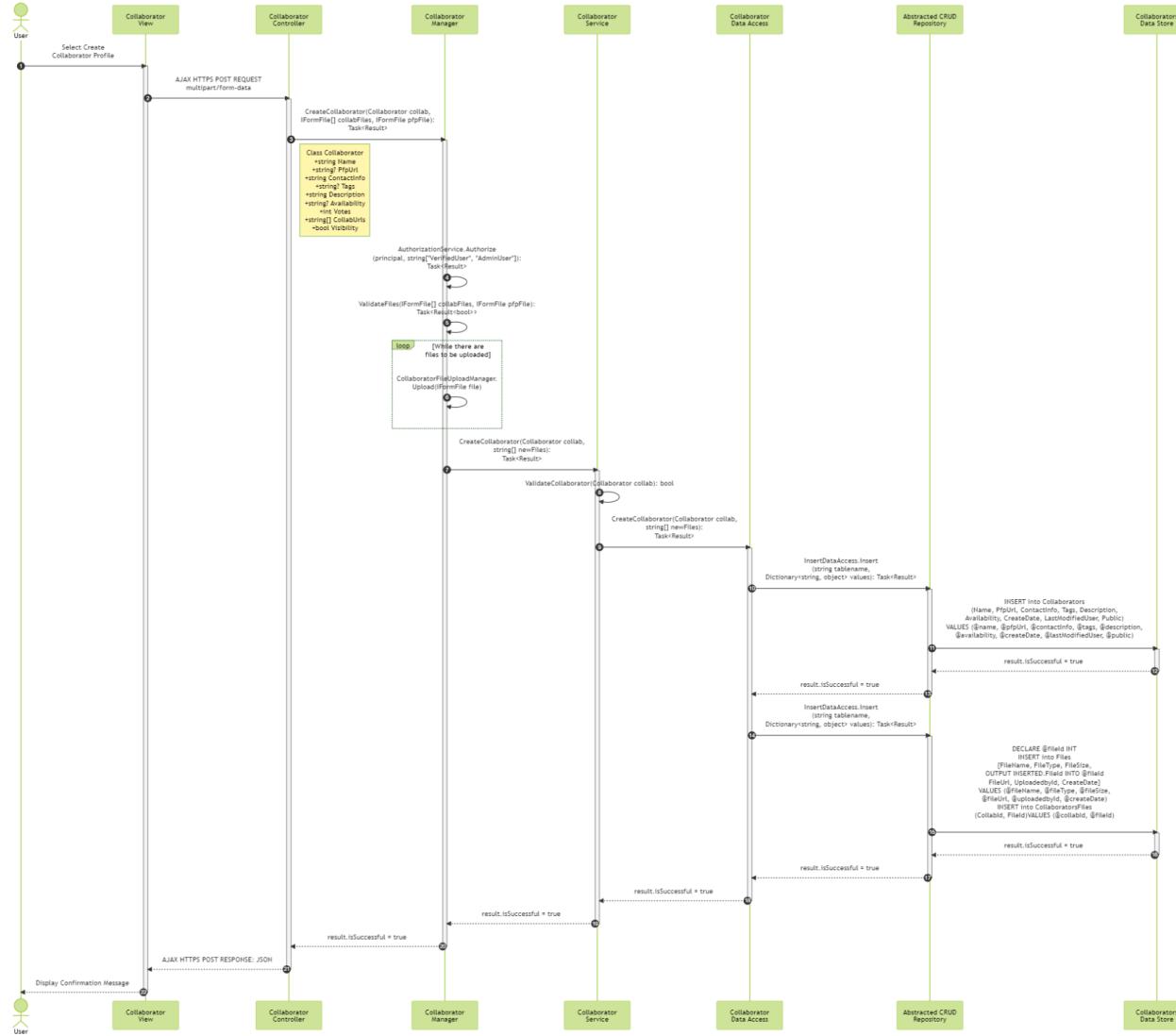
part 2 of 2: Insert the new file information into the sql server data store and delete removed files from AWS S3



Note:

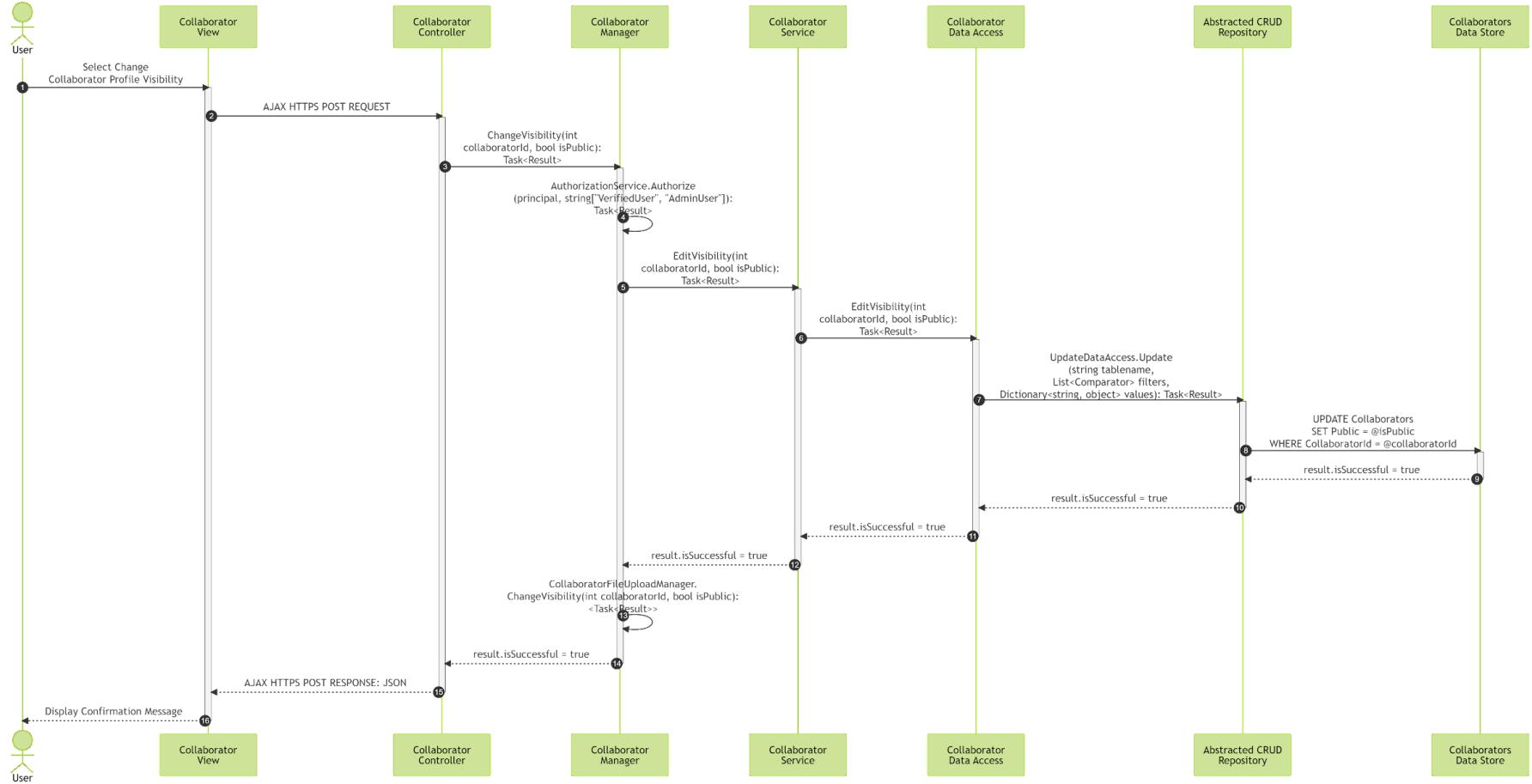
- Step 2-3 in part 1 is described in success case 1 as GetCollaborator and then the view is modified for the User edit
- Uploader functionality from step 10 in part 1 and step 11 in part 2 described in CollaboratorFileUpload LLD

4. User creates their own collaborator profile.



Note: step 15 inserts the new collaborator files into the file database while simultaneously adding new files with the foreign key to the junction table.

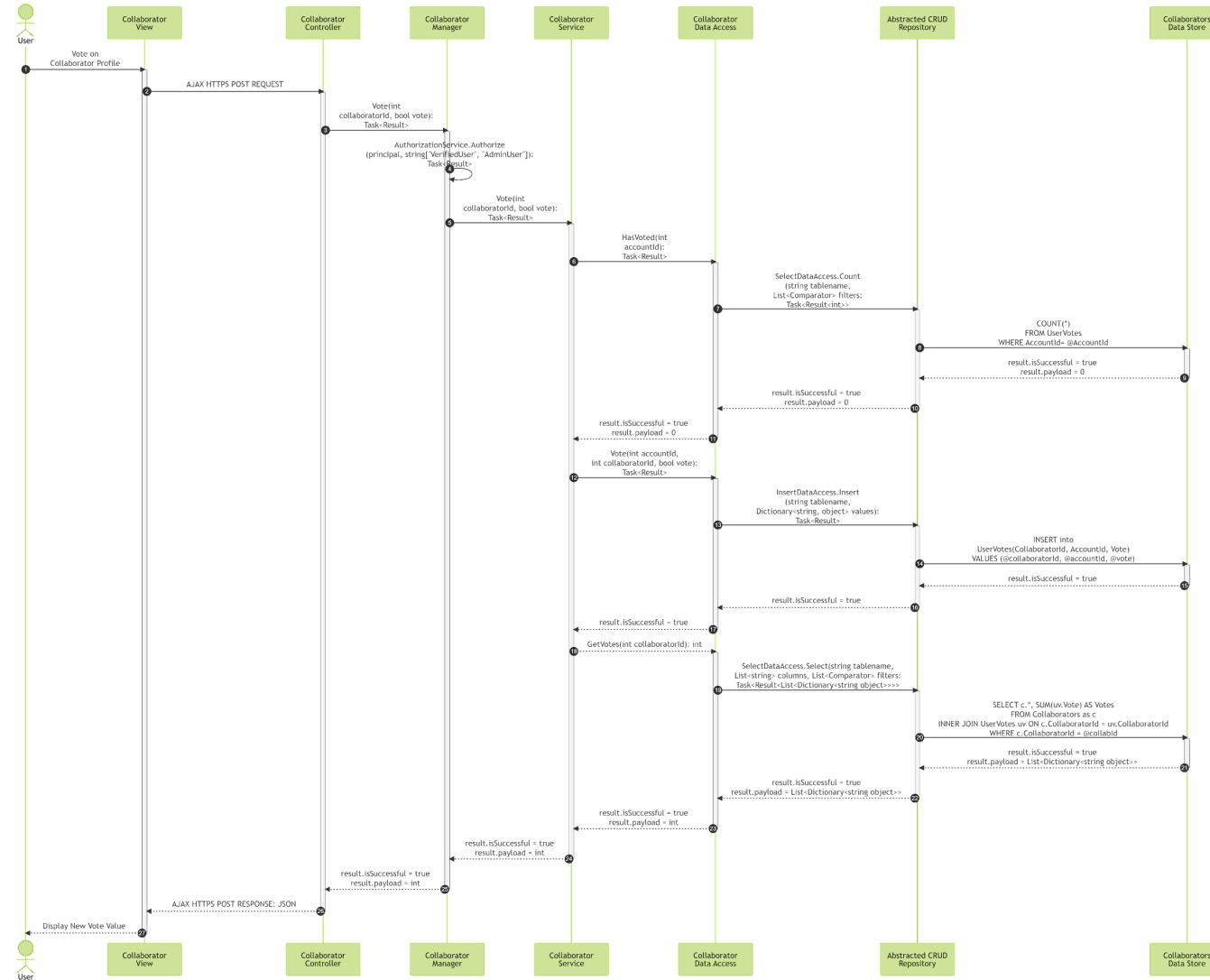
5. User changes their own collaborator profile visibility (public or private)



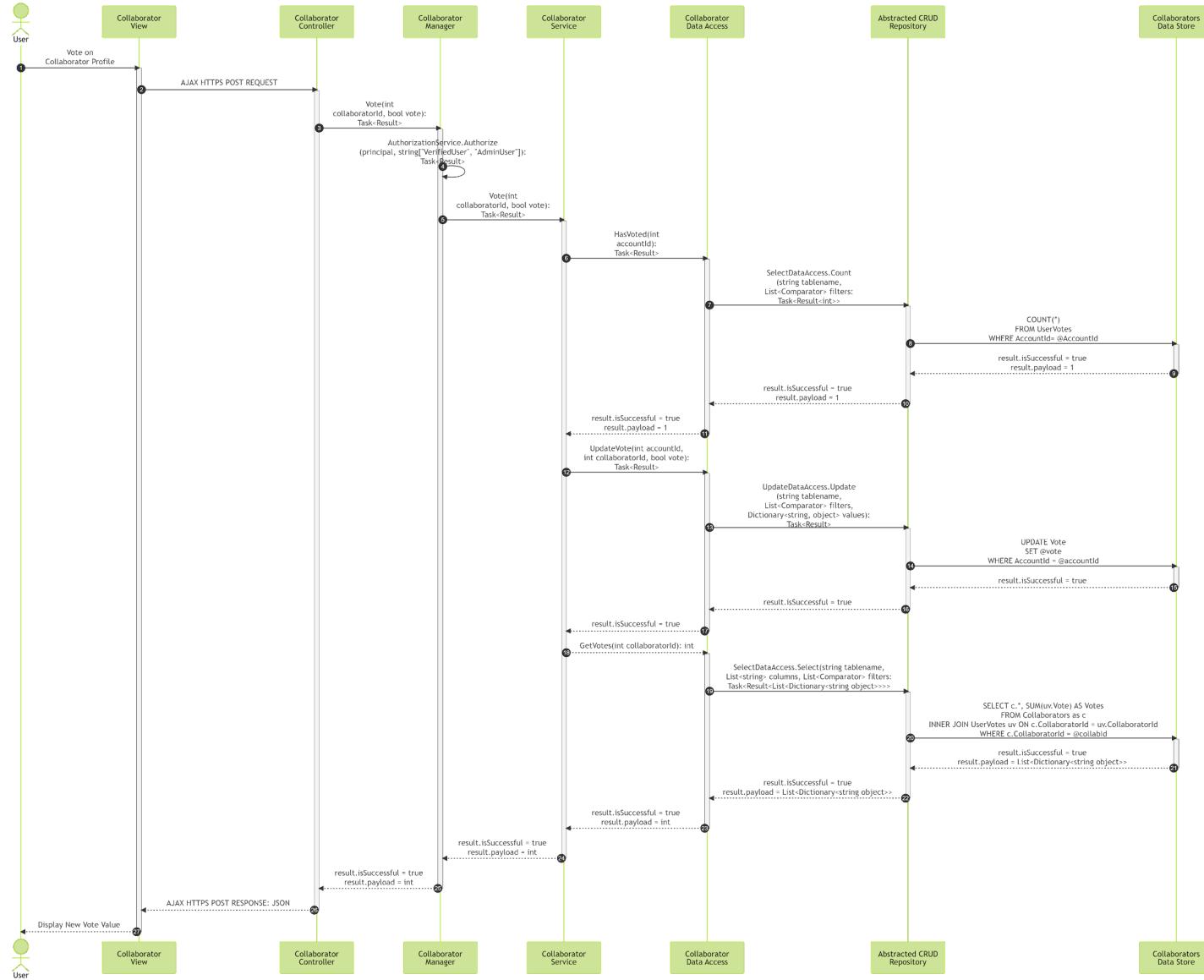
6. User votes on a collaborator profile(+1 or 0)

Vote counter can only go up. Removal of a vote is 0.

6a) User has never voted before

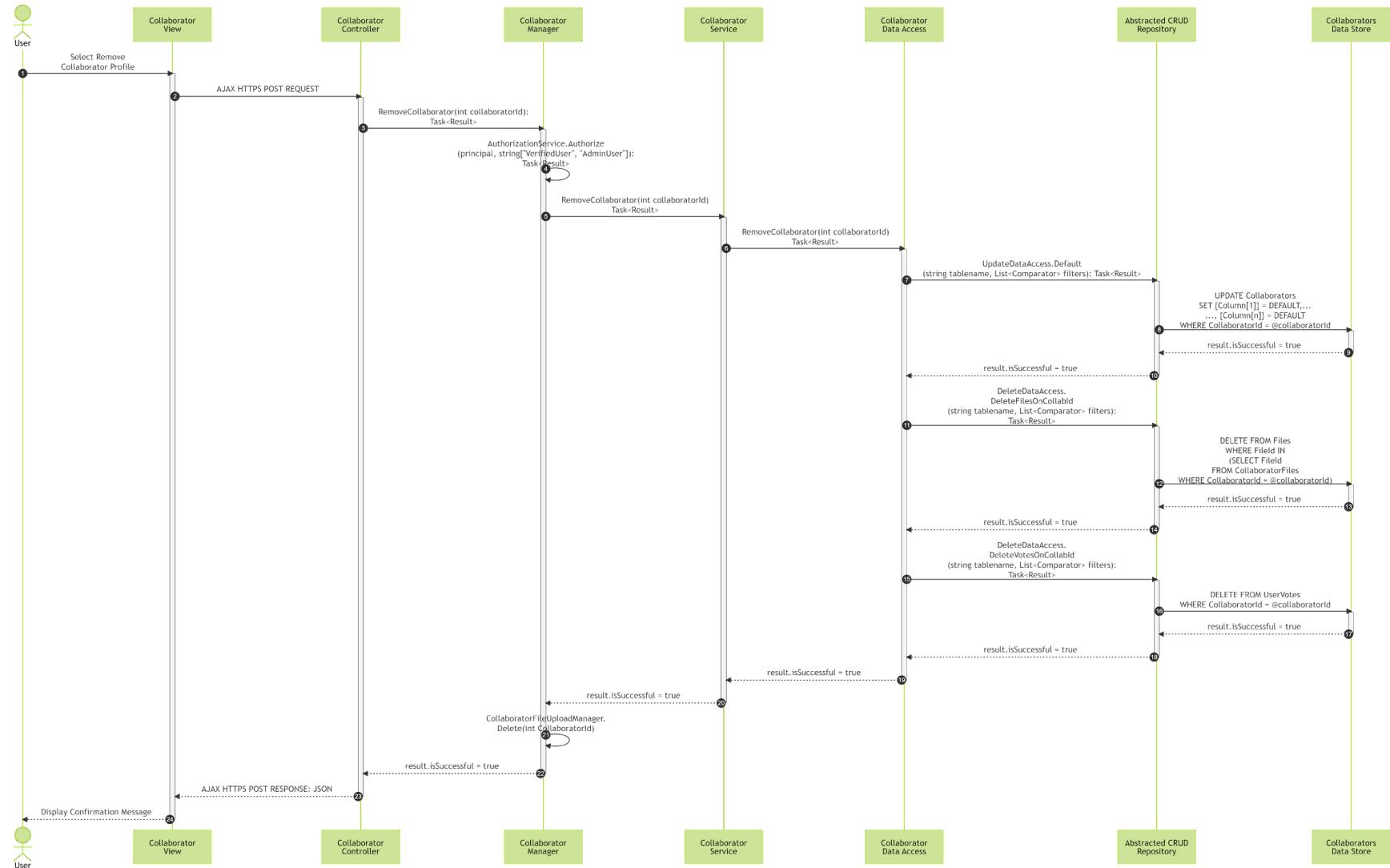


6b) User has voted before



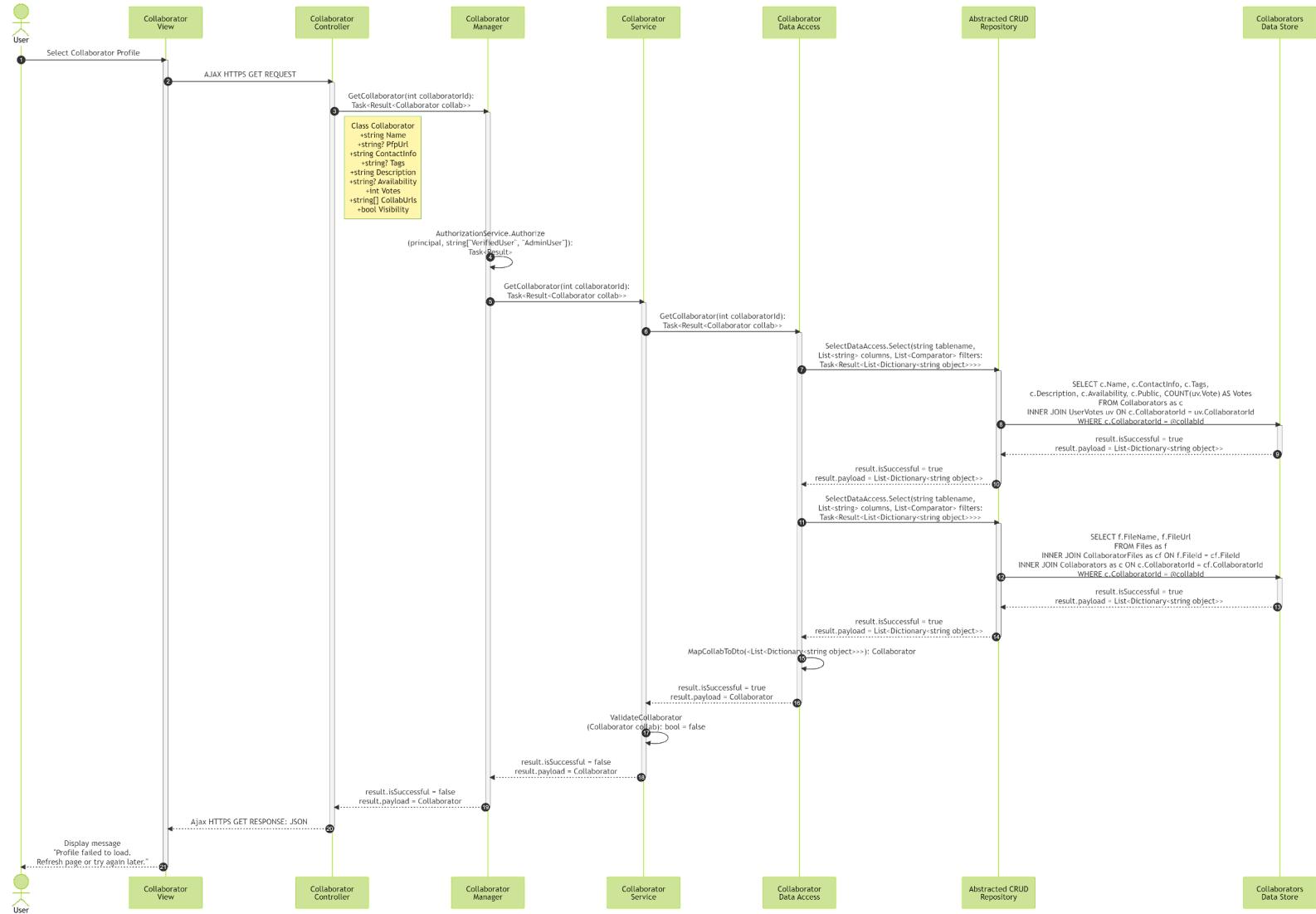
7. User removes their own collaborator profile

User collaborator profile is hidden and all data is cleared: set to default value. Files are deleted from SQL and Amazon S3.

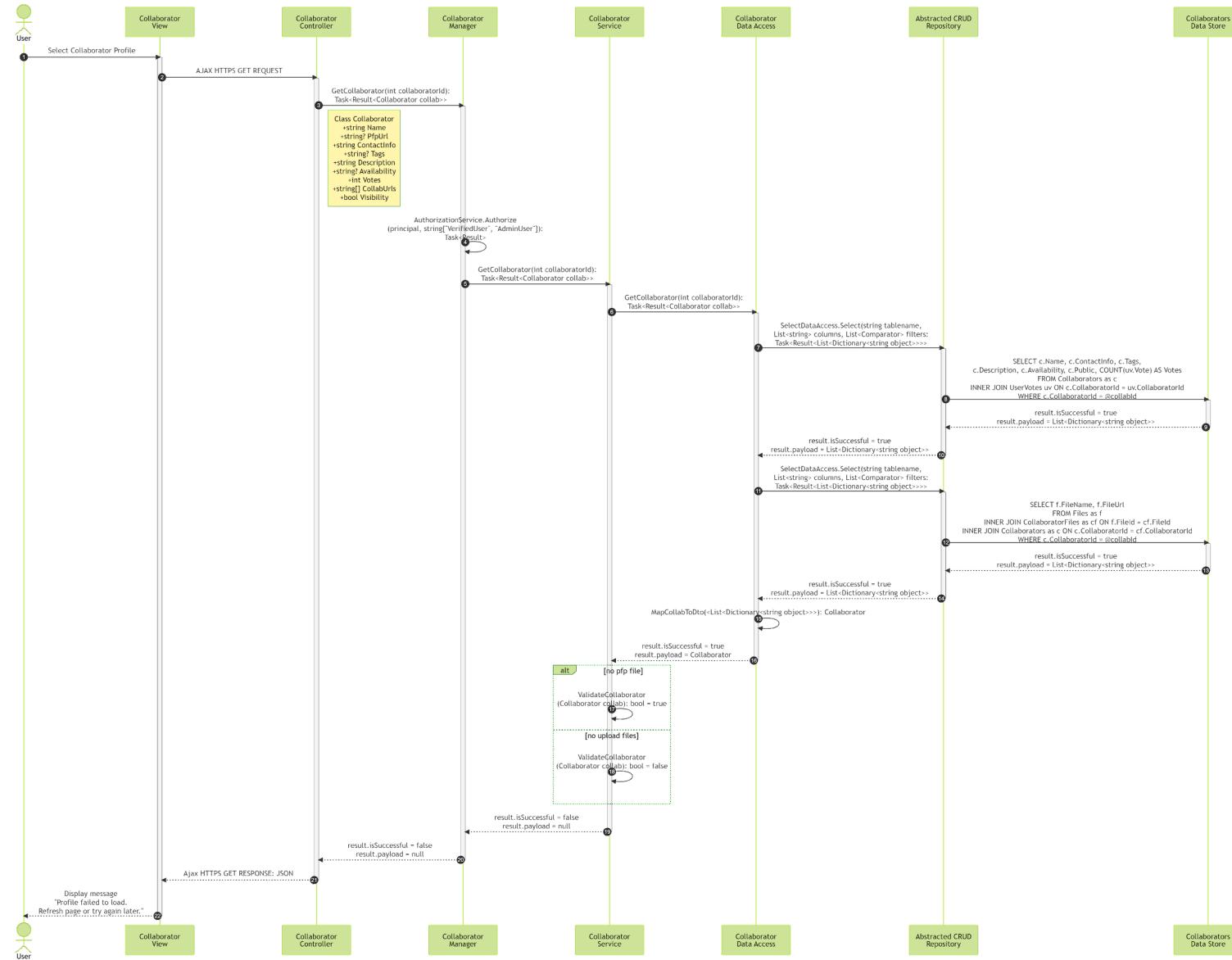


Failure Use Case(s)

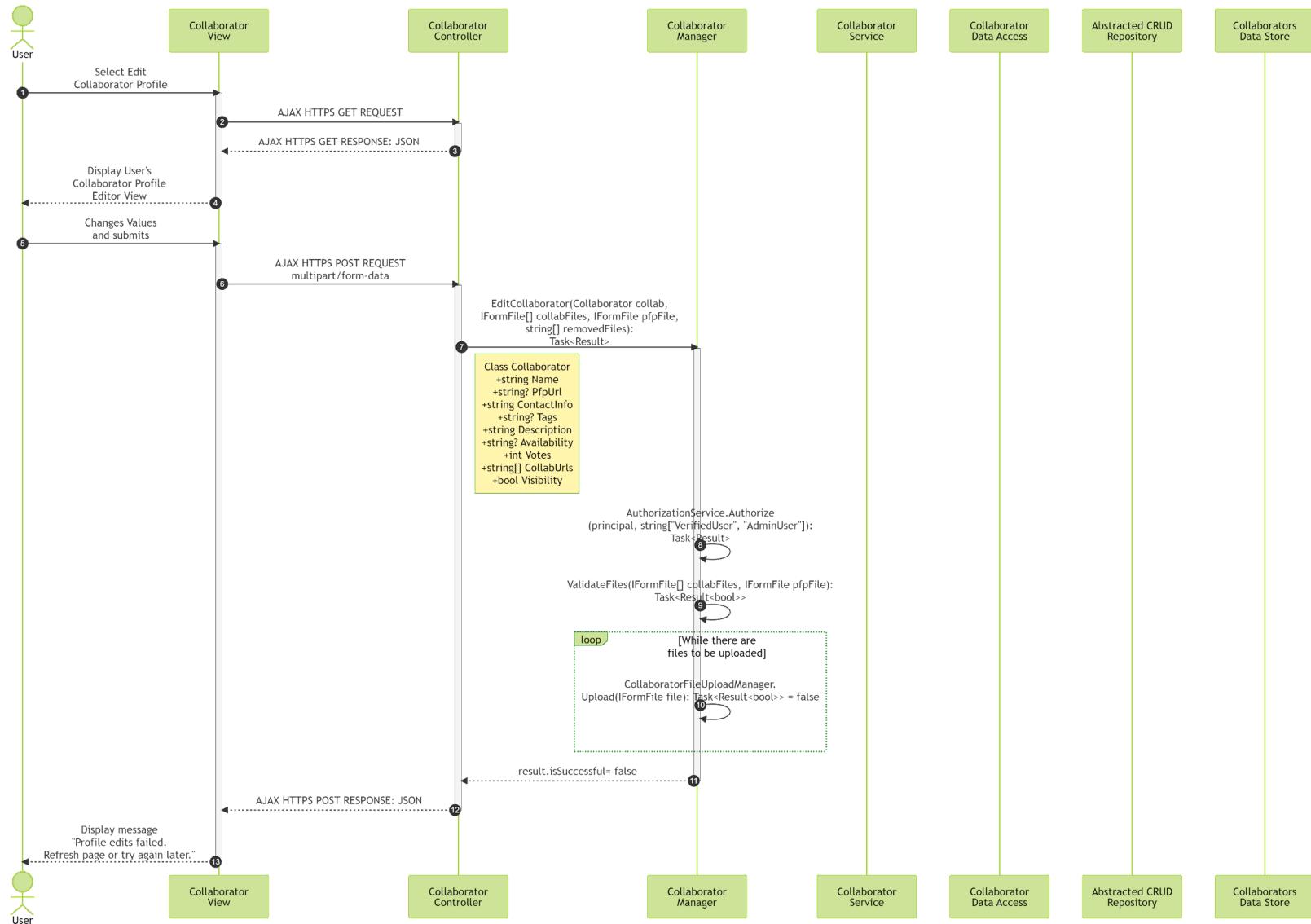
- User selects a public collaborator profile to view. The collaborator data was not found.



2. User selects a public collaborator profile to view. The uploaded file urls' data were not found.

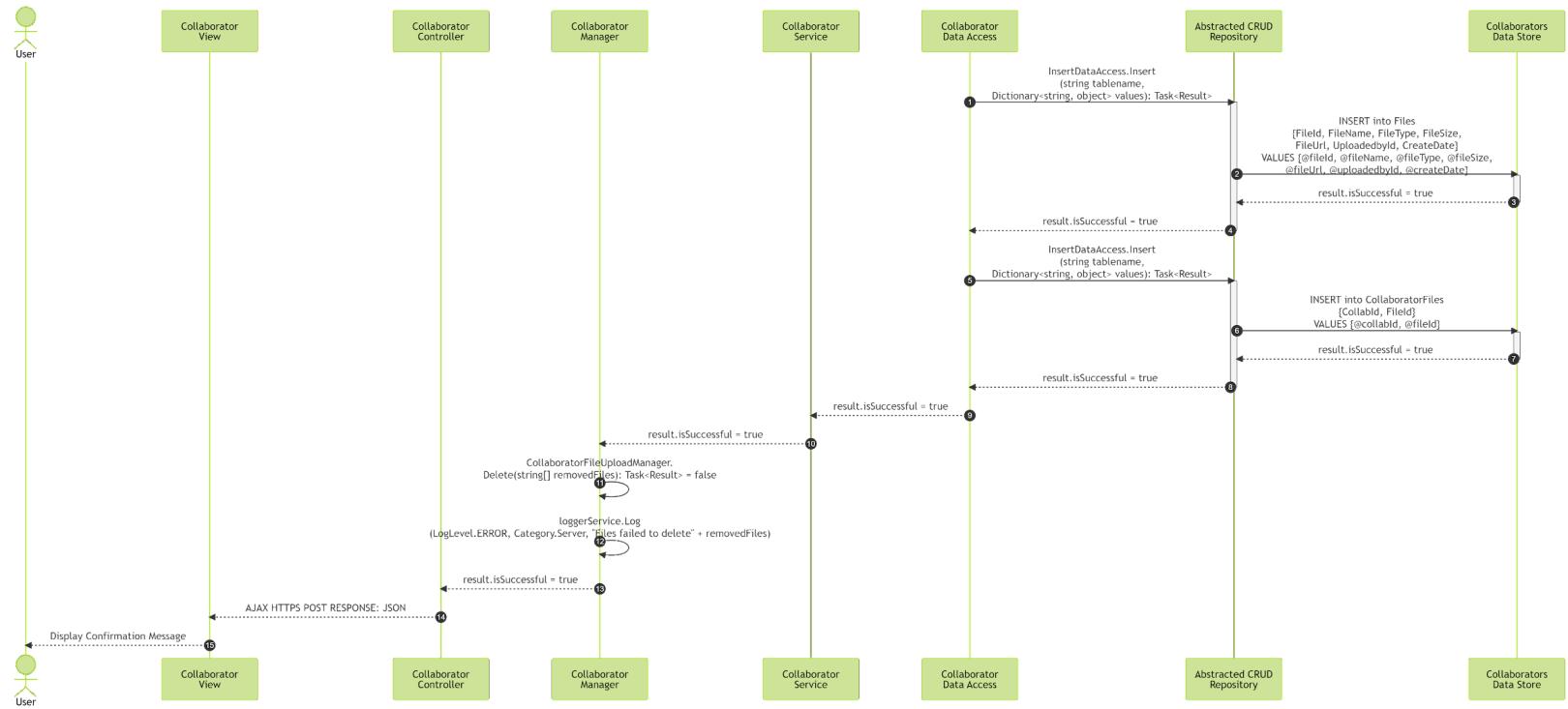


3. User edits collaborator profile. Collaborator file uploader fails to properly upload files to S3.

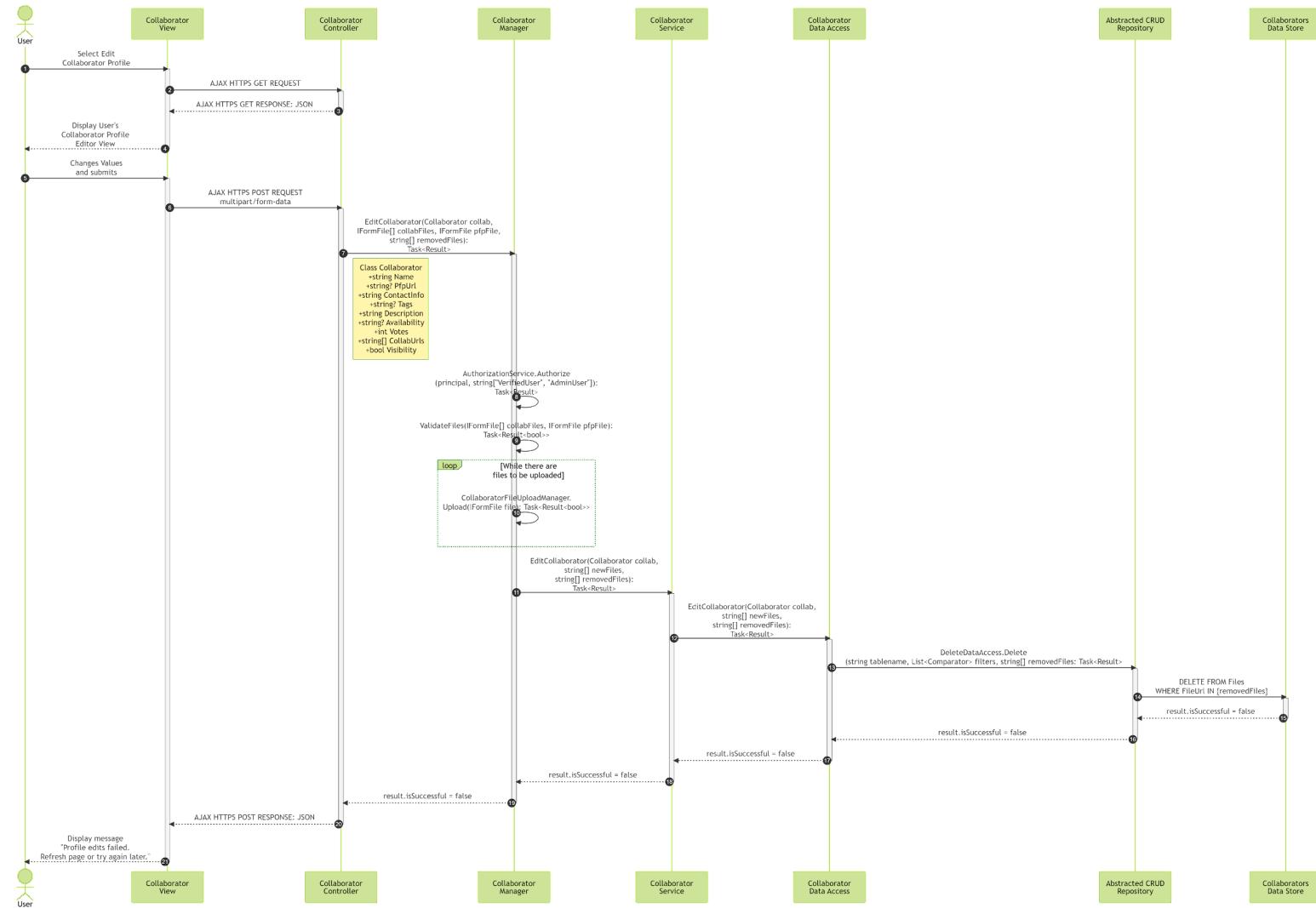


4. User edits collaborator profile. Collaborator file uploader fails to properly delete files from S3.

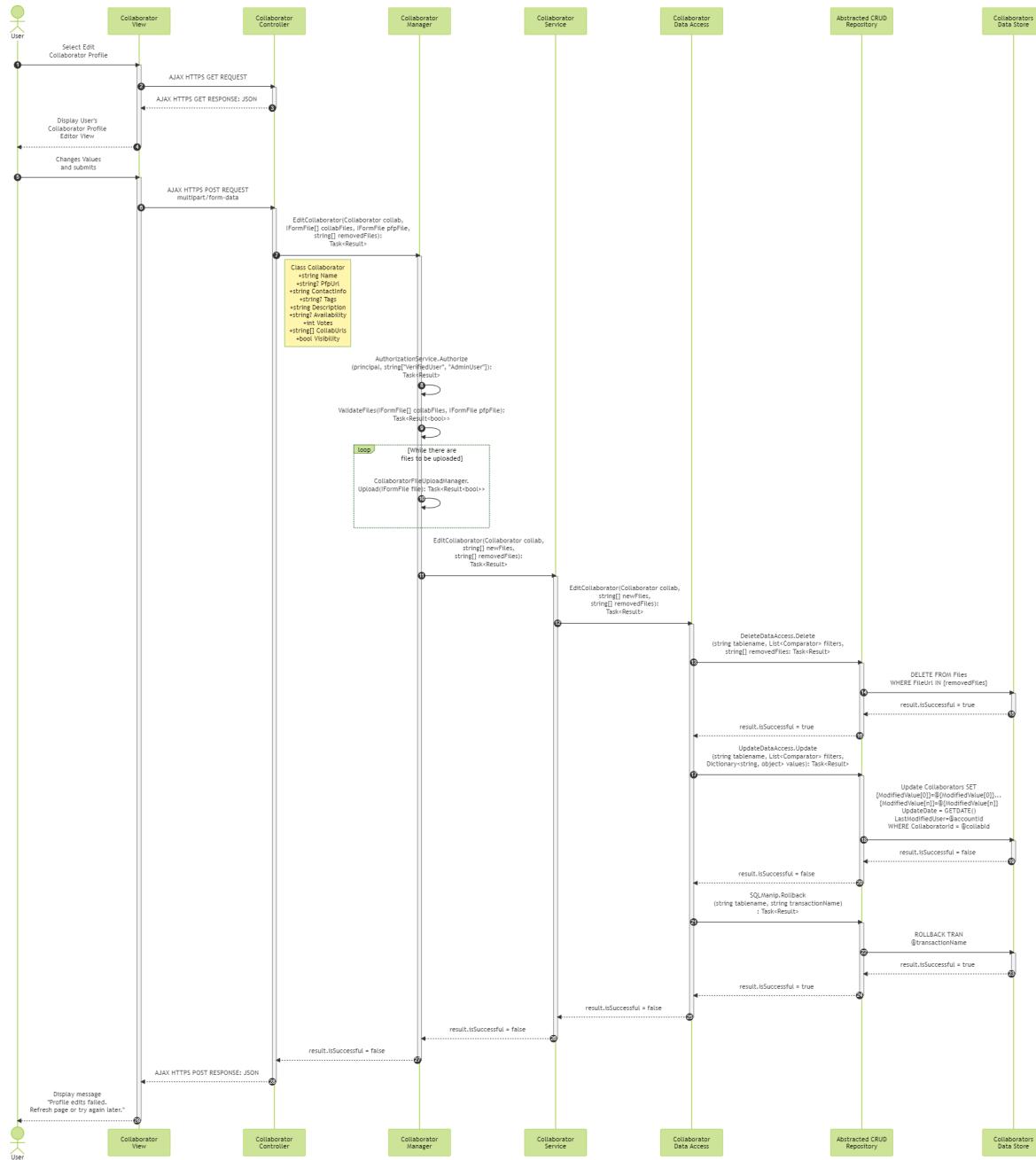
Note: continued from part 1 of 2 of success case 3



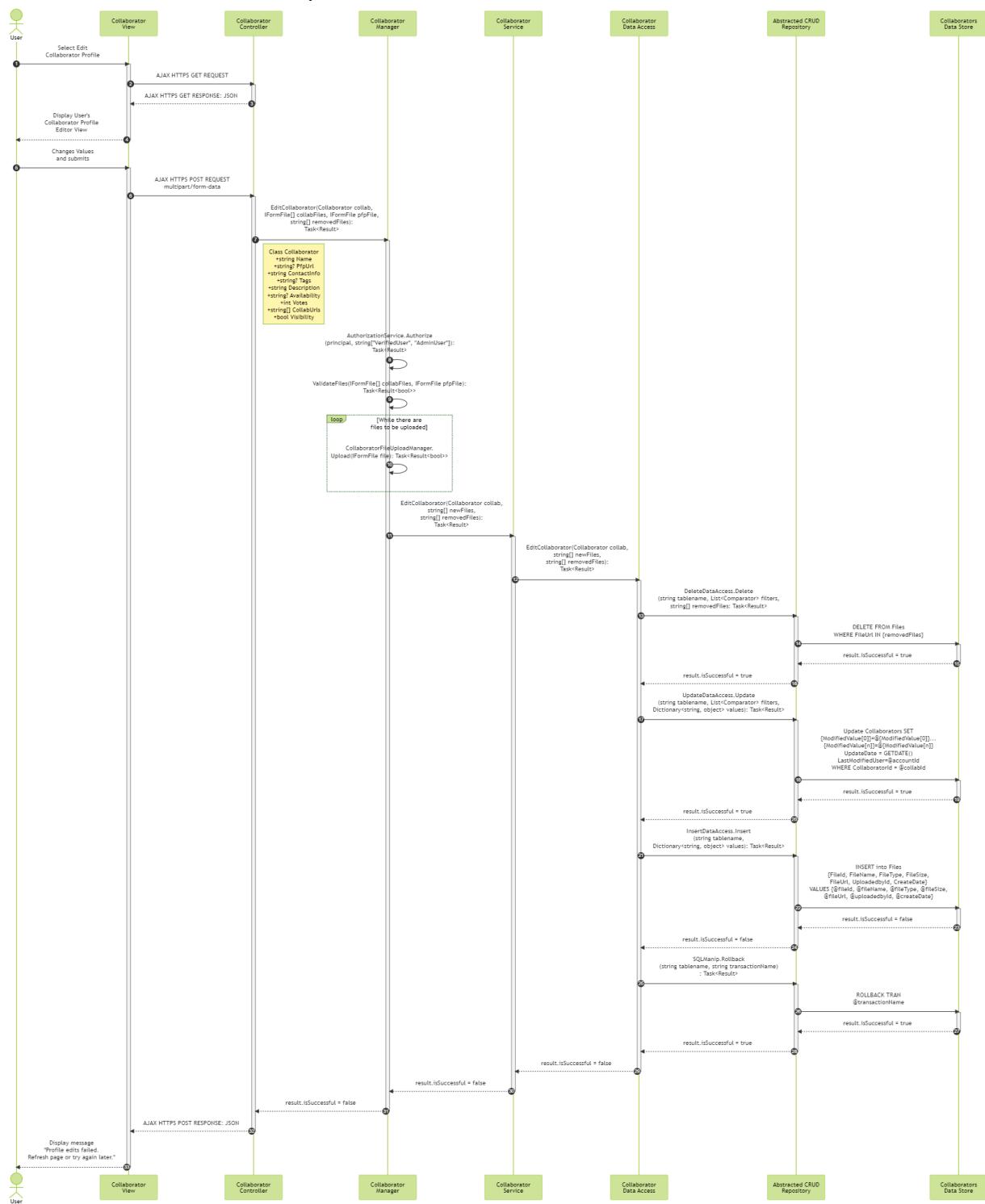
5. User edits collaborator profile. Collaborator file information cannot be deleted from database.



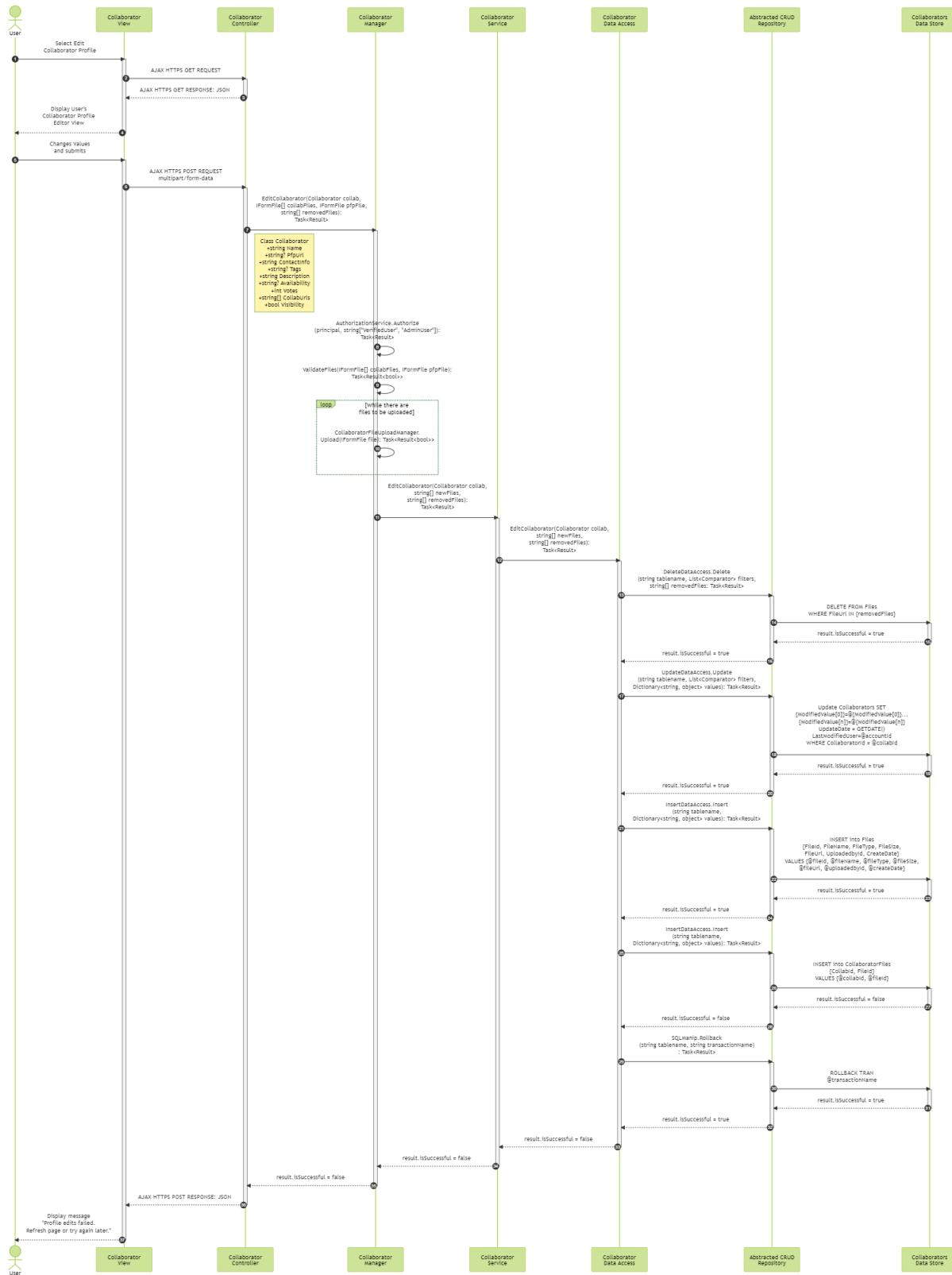
6. User edits collaborator profile. Collaborator data cannot be inserted into database.



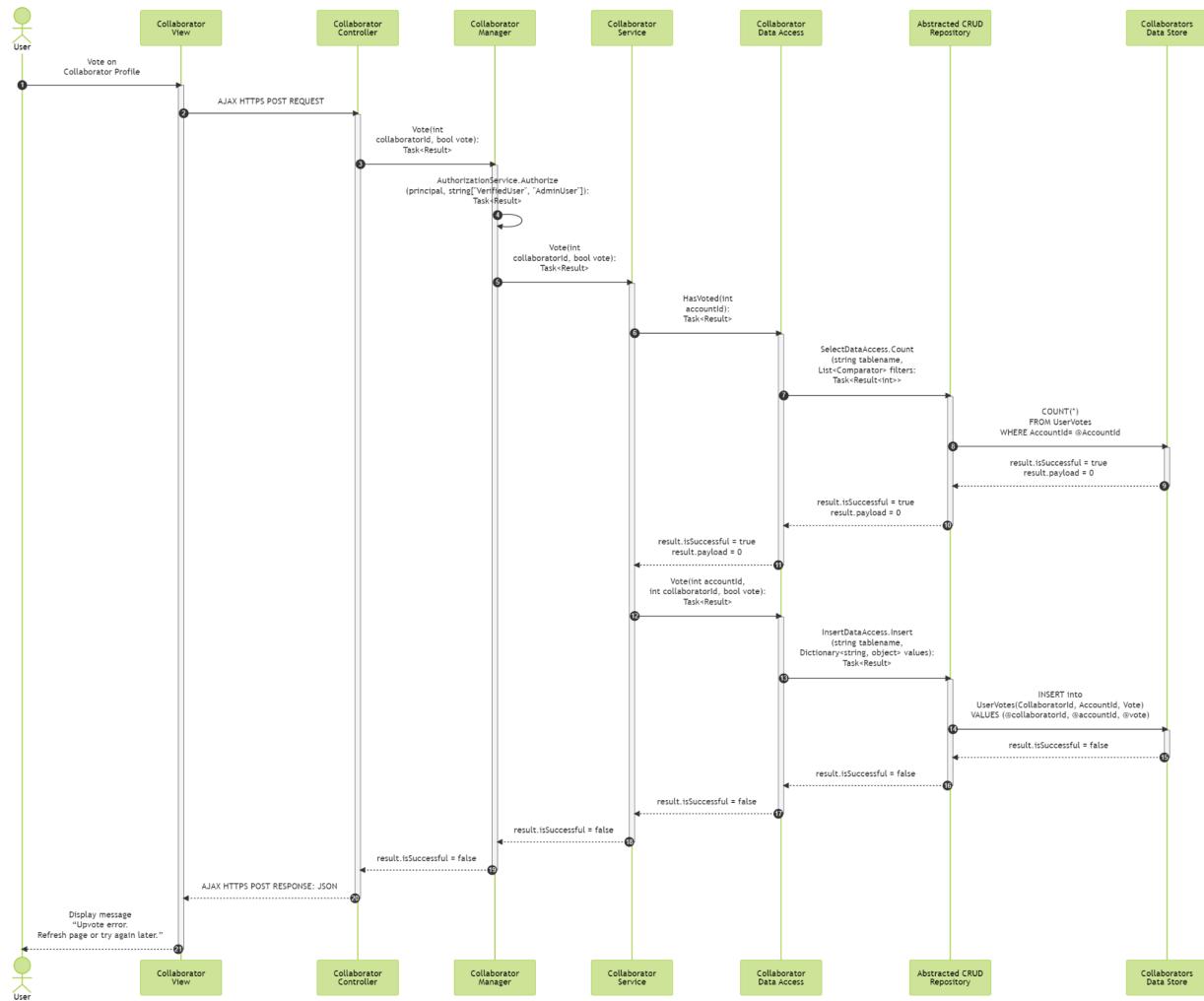
7. User edits collaborator profile. Collaborator file url data cannot be inserted into database.



8. User edits collaborator profile. Collaborator file junction data cannot be inserted into database.



9. User votes on collaborator profile for the first time. Their vote cannot be added to the database.



10. User updates their vote on collaborator profile. Their vote cannot be updated in the database.

