Distributed Systems Programming

A.Y. 2022/23

Exam Assignment for Exam Call on 14/06/2023

Deadline for submission: 12/06/2023, 12:00 CET

Extend the REST APIs of Laboratory 1, by introducing the feature of acceptance (or refusal) of review invitations, according to the following specifications:

1. When a film owner invites a user to review a film, the invited user must explicitly accept or refuse the invitation. Until the invited user does not express his choice, the review invitation remains in a pending state. An invited user cannot start to write or complete a film review for which he has been invited, if the invitation is still in the pending state.
2. If the invited user accepts the review invitation, he can write and complete the film review, following the specifications of Laboratory 1.
3. If the user refuses the review invitation, he must not be allowed to write a review related to the film for which he refused the invitation. However, the film owner may decide to invite again the same user for the same film. If the invited user decides to accept this new invitation, then he is allowed to write and complete the review.
4. The status of all the review invitations sent for a film must be visible only to the film owner, who sent those invitations. In particular, the film owner must be able to know if any review invitation is in the pending state, if it has been accepted, or it if has been refused by the invited user. In order to avoid the transfer of useless information, the user should have the possibility to select the information to retrieve (e.g., the user may want only to know what are the invitations that are in the pending state, if any).

Extend the implementation of the service so that it implements the extended REST APIs. Of course, the database must also be extended accordingly. Note that it is not required to extend the REACT client. Test the extended REST APIs by using a client like Postman.

Submit the updated solution, including all the following items:
- All the json schemas

- The full Open API documentation of the REST APIs, including examples of JSON documents to be used when invoking the operations, and examples of invocations of the API operations, possibly as a Postman collection
- The REST APIs implementation code
- The database file, including some sample data
- README.md files that specify the contents of folders, the instructions on how to run the code from scratch and the main design choices made.

Important:
- Organize the project files as in the solution provided for Laboratory 1.
- The solution must work within the Linux Labinf machines, with the software already installed in those machines.
- The solution will be tested by running it in the Labinf machines.
- The solution must be uploaded to a git repository for which you will soon get the credentials.