Master Team Project WiSe 2021/2022

Pick-A-Tutor

Milestone 2

GDSD Project Team A (local team)

09.12.2021

Team Members

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Revision History

Revision	Date Submitted	Date Revision	Changes

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1 Functional requirements

1-Must have

1. **Search as anonymous user:** Anonymous users, students, tutors or administrators should be able to browse through the available tutors and corresponding courses.

2. **Search as registered user:** Anonymous users, students, tutors or administrators should be able to browse through the available courses and corresponding tutors who are offering those courses.

3. **Register:** Any Fulda university member (whose email suffix string has "hs-fulda.de") should be allowed to register with details such as first name, last name, email and password.

4. **Login:** Students, tutors, or administrators should be able to log in to Pick-A-Tutor based on their assigned role (student, tutor or administrator). If a registered user is both a student and a tutor then a switch will be presented during login to select the appropriate view (either a student view or tutor view) of the website.

6. **View review:** Students should be able to view the reviews about a tutor.

9. **Send message:** Students should be able to contact a tutor or an administrator via on-site messaging. The messages will persist for the tutor or administrator to view or reply.

10.**Write review:** Students should be able to write reviews and provide ratings about a tutor who teaches them. These reviews will be shown on the tutor's page.

12. **Modify profile:** Tutors should be allowed to add or update their name, description, additional information, and pricing.

13. **Modify profile CV:** ModifyTutors should be able to upload or delete their CV.

14. **Modify profile image:** Tutors must upload and should be able to replace a profile picture.

15. **Modify and uploads:**Tutors should be able to upload or delete files (audio, video, images or documents). These files should be available for download to the students.

16. **Reply message:** Tutors should be able to reply to messages they received from students.

17. **Write message as tutor:** Tutors should be able to write new messages or reply to the messages received from an administrator.

19. **Write message as admin:** Administrators should be able to write new messages or reply to messages.

20. **Approval:** Administrators should be able to approve a student's or tutor's profile picture. Also, administrators should be able to approve a tutor's profile and the included files.

2-Desired

5. **Rate a tutor:** Pick-A-Tutor will showcase the tutor with the highest rating based on the students' ratings and reviews.

7. **Modify password:** Students or tutors should be able to reset their password by clicking on the "forgot password" option on the login page.

8. **Delete account:** Students or tutors who would like to soft delete their account from this website should be allowed to delete it if they are already logged in.

11. **Delete review:** Students should be able to delete their reviews.

3-Opportunistic

18. **Report review:** Tutors should be able to report inappropriate reviews.

21. **Block-unblock user:** Administrators should be able to block or unblock students or tutors.

22. **Delete account:** Administrators should be able to delete tutor or student accounts.

23. **View-delete review:** Administrators should be able to view or delete reported reviews.

2 List of main data items and entities

1. Students: A group of registered users who can view available courses and tutors, start conversations with tutors, register to courses, and review courses they have taken.

2. Tutors: A group of registered users who can teach courses, upload files corresponding to their taught courses, and reply to student messages.

3. Administrators: A group of users who moderate the website. They can start conversations with any other user, approve uploaded or updated profiles, view and act on reported reviews, and lock or completely ban rule violating users.

4. Anonymous users: Users that did not register and are only able to browse, but not contact anyone.

5. Courses (taught by tutors): The set of material explained by tutors to students.

6. Pricing: The course prices set by each tutor for his taught courses.

7. Review: The optional rating and comment given by the student to the tutor after the start of a course.

8. Approval: The admin permission for content to be viewed by all users.

3 UI Mockups and Storyboards

Main use cases

Use case 1:

ID	1-Non-Registered-Browsing
Title	Browse through the courses and tutors
Basic Flow	When anyone simply wants to browse through the courses or tutors at Pick-A-Tutor, they have to click on the "Browse" button. Then they have to choose if they want to browse the courses or tutors. Afterwards they will be presented with a list of the available options of their choice.

Use case 2:

ID	2-User-Register-Account
Title	Register an account
Basic Flow	When current or former members of Fulda University of Applied Sciences want to join Pick-A-Tutor, they need to visit the website and click on the "Register" button. After filling out their first and last name, email address and password, they decide whether they want to register as a student or as a tutor.

Use case 3:

| ID	3-Tutor-Upload-Profile
Title	Upload a tutor profile
Basic Flow	When users who registered as a tutor want to start offering their services, they need to login into their account. Then they fill out their tutor profile, which will stay private until it has been approved.

Use case 4:

ID	4-Student-Request-Tutor
Title	Request to be taught by a tutor
Basic Flow	When students want to be taught by a tutor, they login into their account. Then they search for the course they want to be taught in or directly search for the tutor by name. Afterwards they look at the search results. The next step is to click on the "Request" button next to the tutor they decided on. While they wait for the tutor to reply,

|	they can optionally send a message to that tutor.

Use case 5:

| ID	5-Admin-Approve-Profile
Title	Approve tutor profiles as an admin
Basic Flow	When tutors upload or update their profile, admins have to approve them before they are visible to everyone. For this, they first have to login. Then they navigate to a page where they can see all the profiles that have to be approved. They take a look at the profiles and click on the "Approve" button, which makes the profile visible.

4 High-level architecture and DB organization
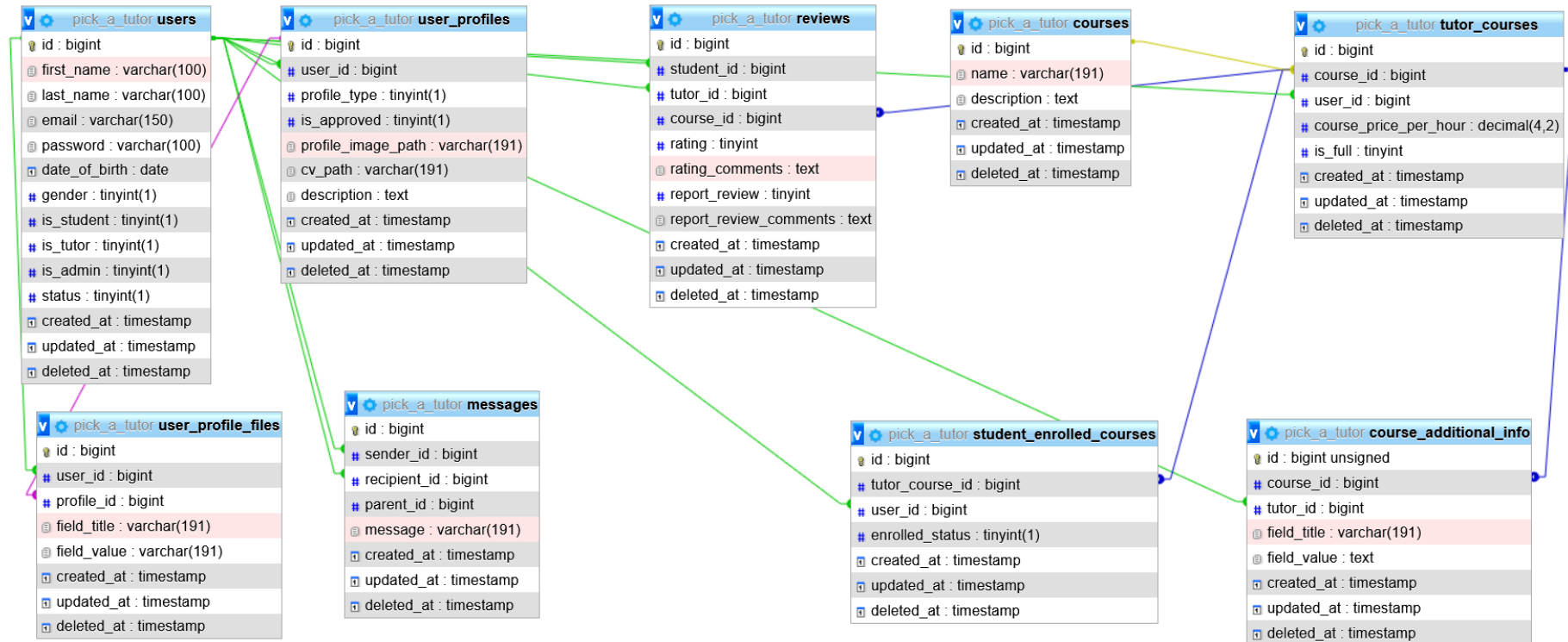
5 High-level UML diagrams

a) Class Diagram
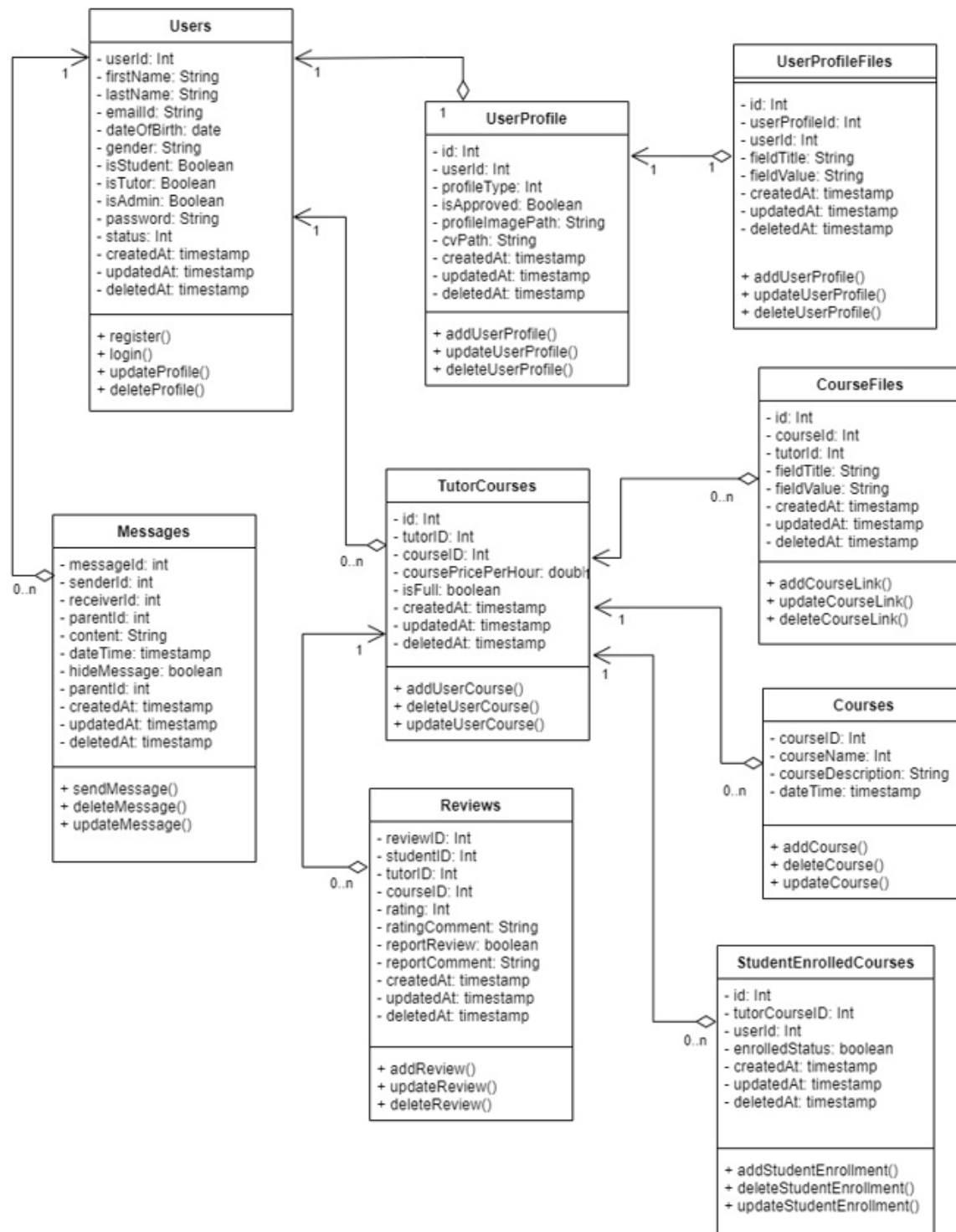
b) Component and Deployment Diagram
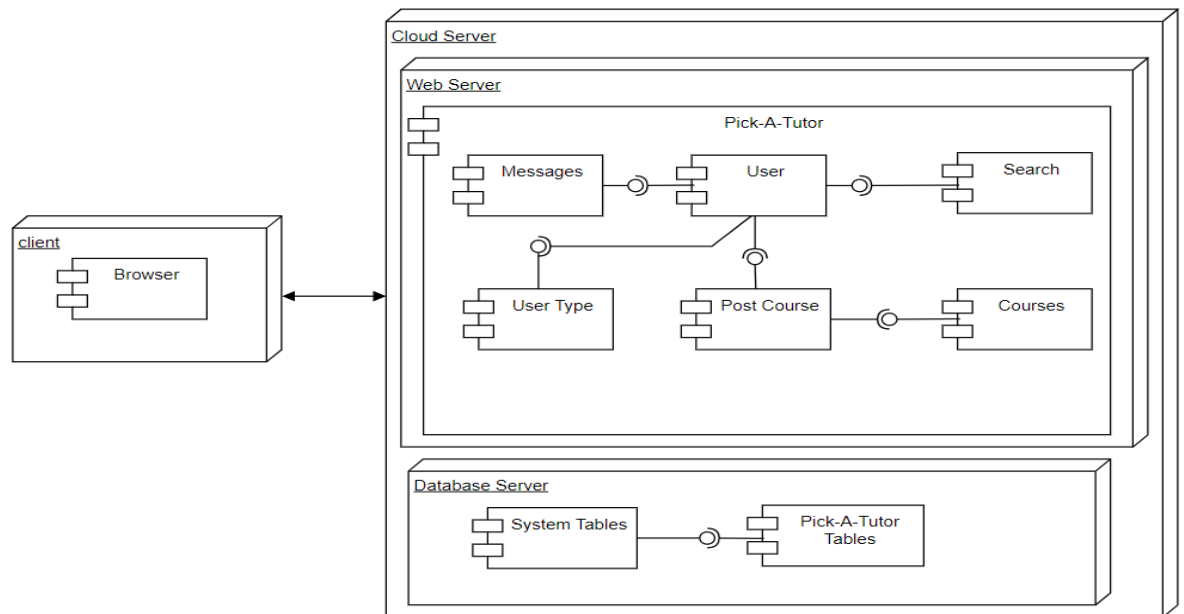
6 Key risks for the project

Skills risks

- The technology stack is new to the team members. All the team members have been learning the needed technology stack
- We don't have any members who are experts in the stack. We will rely on available resources like stackoverflow and help from the professor if we get stuck. Furthermore, we will rely on standard architecture to rely on the team members previous experiences.
- As all the members are starting to learn the technology stack and there is a good learning curve, team members can be pigeonholed to small parts of the system and of the technology stack, at the same time it is not feasible to have a deep understanding of the entire stack. To avoid that, the team members will learn deeply the needed technology for their assigned tasks but all members are required to be familiar with the entire stack and all the system parts.
- Another risk is that team members might not be on the same skill level after self learning. Some may become better in a tech stack and some may lag behind a bit and can have issues in completing the project on time.
- If skill set developed is not on same level, there can be issues with code quality

Schedule risks

- Meeting the deadline and finishing the tasks can be not easy as the semester progresses. We have weekly team meetings to follow up the tasks and to adjust to any problem that rises.
- We also have other subjects, projects, assignments, quizzes and midterm exams and some students have student jobs which can cause hindrance in meeting the deadlines.

Technical risks

- Managing the code repository can be a problem, we need to make sure as we contribute to the project, there will be a stable codebase. Currently, we have a git workflow for commits and there are two github masters who review the pull requests. We are also keeping separate branches for each milestone.

Teamwork risks

- Not equally distributed workload can harm the relations between team members. We meet each week to distribute each milestone tasks between members and we use Trello to transparently keep track of each member tasks.

- Some team members are taking more courses than the others and some are also doing student jobs. Even in equal task distribution, a team member can have problems delivering his part of the tasks affecting the whole team's work and deadlines.

Legal/content risks

- People can mistake our website as a real application. We have a disclaimer that this project is just for a course
- We use copyleft media and open source frameworks to avoid licensing problems.

7 Project management