

Software Engineering Project

Tutoring Software Platform *StudyBuddy*

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1. Project Description

The fundamental objective of the project is to create a user-friendly platform that connects students with qualified tutors, making it easy for students to find and schedule a lesson. The tutors will have effective tools to manage their sessions, track students' progress and generate income while maintaining the quality of their services.

2. User Stories

Our User Stories consist of a front and reverse side, each for each actor - Student, Tutor, Parent/ Legal Guardian, Administrator. These are as follows:

- Student

As a... student

I want to...	so that...
register on the platform	I can access tutoring services and track my progress
login to my account	I can access my personalized dashboard, view my information, and use platform services
search for tutors based on specific criteria	I can find the right tutor to help me with my educational needs
request a tutoring session with a specific tutor	I can schedule personalized learning sessions when it suits me
have live video tutoring session with a chosen tutor	I can engage in interactive and real-time learning
track and view my progress and performance feedback from a tutor	I can monitor my educational growth
cancel a scheduled lesson	I can adjust my schedule in case plans change
rate a tutor after a tutoring session	I can share my experience and help other students make informed choices
access a list of my past lessons and view my upcoming lessons	I can keep track of my educational journey and be prepared for future sessions
be able to update my account	I can adjust my personal information and search preferences

Table 1: List of User Stories for a Student (Front Side)

Acceptance criteria checklist

(Functionality)

- Can I register on the tutoring platform, providing essential information for creating my student account?
- Can I securely log in to my account on the tutoring platform to access my personalized dashboard?
- Can I search for tutors based on specific subjects, location, and availability criteria?
- Can I request a tutoring session with a specific tutor, specifying the date and time that suits me?
- Can I cancel a scheduled lesson, providing a reason and receiving confirmation?
- Can I rate my tutor after a tutoring session, providing a rating and feedback comments?
- Can I update my account information, preferences, and settings, including password changes or account deactivation?

Non Functional Requirements

(Usability Reliability Performance Security)

- Is the platform available and accessible to students 24/7, with minimal downtime for maintenance or updates?
- Is the platform's user interface intuitive and easy to navigate for students?
- Is the platform accessible and easy to navigate to students with disabilities?
- Is the platform responsive on both desktop and smartphones?
- Does the platform work seamlessly across various web browsers and operating systems?
- Is the system dependable, ensuring that registrations, logins, searches, and session management occur accurately and consistently?
- Does the platform operate efficiently, handling a large number of students, lessons, and data without significant delays?
- Can a student be able to reset the password in case it is forgotten?
- Is user data, communication, and interactions secure, maintaining the privacy and confidentiality of students' educational information and account details?

Figure 1: User Story Card for a Student (Back Side)

- Tutor

As a tutor...

I want to...	so that...
create and manage my profile	I can provide information about my qualifications and teaching style
login to my account	I can access my personalized dashboard, manage my tutoring sessions, and interact with students
manage my availability and schedule tutoring sessions	I can efficiently connect with students

monitor and record student progress and performance	I can offer effective guidance and feedback
provide feedback to my students after a tutoring session	I can help them understand their strengths and areas for improvement
upload educational materials, such as videos, documents, and quizzes	students can access valuable resources for learning
access a list of my past lessons and view my upcoming lessons	I can keep track of my tutoring history and be prepared for upcoming sessions with students
be able to update my account	I can modify my personal information

Table 2: List of User Stories for a Tutor (Front Side)

Acceptance criteria checklist

(Functionality)

- Can I create and manage my tutor profile, providing information about my qualifications and teaching style?
- Can I securely log in to my tutor account on the tutoring platform to access my personalized dashboard?
- Can I manage my availability and schedule tutoring sessions efficiently, specifying subjects, date, and time?
- Can I monitor and record student progress and performance, providing effective guidance and feedback?
- Can I provide feedback to my students after tutoring sessions, helping them understand their strengths and areas for improvement?
- Can I upload educational materials, such as videos, documents, and quizzes, making them accessible to students?
- Can I access a list of my past lessons and view my upcoming scheduled lessons for tracking and preparation?
- Can I update my account information, including personal details, qualifications, and preferences when needed?

Non Functional Requirements

(Usability Reliability Performance Security)

- Is the platform available and accessible to tutors 24/7, with minimal downtime for maintenance or updates?
- Is the platform's user interface intuitive and easy to navigate for tutors?
- Is the platform responsive on both desktop and smartphones?
- Does the platform work seamlessly across various web browsers and operating systems?
- Is the system dependable, ensuring that registrations, logins, searches, and session management occur accurately and consistently?
- Does the platform operate efficiently, even when tutors have numerous lessons, resources, and data to manage?
- Can a tutor be able to reset the password in case it is forgotten?
- Is the tutor profile data, communication, and interactions secure, maintaining the privacy and confidentiality of tutor information?

Figure 2: User Story Card for a Tutor (Back Side)

- Parent/ Legal Guardian

As a parent/ legal guardian...

I want to...	so that...
register on the platform	I can access tutoring services and track my child's progress
login to my account	I can access my personalized dashboard, manage payments and communicate with tutors
have control over my child's tutoring account	I can monitor their progress, receive updates, and ensure a safe and productive environment
have the ability to communicate with my child's tutor	I can stay informed about my child's educational progress
have secure payment options and access to my billing history	I can conveniently pay for tutoring sessions of my child and track my financial transactions
set controls and preferences for my child's tutoring experience	ensure a safe learning environment for my child
access a list of my child's past lessons and view the upcoming lessons	I can see a past contribution and be prepared for their future sessions
be able to update my account	I can modify my personal information

Table 3: List of User Stories for a Parent/ Legal Guardian (Front Side)

Acceptance criteria checklist

(Functionality)

- Can I access a dedicated section in my parent dashboard to view my child's past tutoring lessons?
- Can I see a chronological list of past lessons with details such as date, time, tutor name, and subject?
- Can I click on a past lesson to access additional details, including any notes or feedback provided by the tutor?
- Can I view a separate list of my child's upcoming scheduled lessons, including date, time, and tutor information?
- Can I filter and sort my child's past and upcoming lessons by date, subject, or tutor name for ease of access?
- Can I receive reminders and notifications for my child's upcoming lessons based on my preferences?

Non Functional Requirements

(Usability Reliability Performance Security)

- Is the platform available and accessible to parents 24/7, with minimal downtime for maintenance or updates?
- Is the platform's user interface intuitive and easy to navigate for parents?
- Is the platform accessible and easy to navigate to parents with disabilities?
- Is the platform responsive on both desktop and smartphones?
- Does the platform work seamlessly across various web browsers and operating systems?
- Is the lesson history and schedule system dependable, ensuring accurate and up-to-date information for parents and their children?
- Does the lesson view process occur efficiently, even when parents have numerous children and lessons to track?
- Can a parent be able to reset the password in case it is forgotten?
- Is lesson data and communication secure, maintaining the privacy and confidentiality of parent and child information?

Figure 3: User Story Card for a Parent/ Legal Guardian (Back Side)

- Administrator

As an... administrator

I want to...	so that...
have the ability to manage user accounts, roles, and permissions	I can ensure the integrity and security of the platform
review tutor profiles and session recordings for quality and compliance	the platform maintains high-quality educational content
assist users with technical issues, answer questions, and offer guidance	users have a smooth and trouble-free experience on the platform
access to financial reports and data	analyze the platform's financial performance and make informed decisions
configure system settings	I can adjust and optimize platform functionality

Table 4: List of User Stories for an Administrator (Front Side)

Acceptance criteria checklist

(Functionality)

- Can I manage user accounts, roles, and permissions, including creating, modifying, and disabling user accounts as needed?
- Can I ensure the integrity and security of the platform by enforcing access controls and security measures?

- Can I review tutor profiles and session recordings to ensure quality and compliance with platform standards?
- Can I take actions based on the quality of tutor profiles and session recordings to maintain high-quality educational content?
- Can I assist users with technical issues, answer their questions, and offer guidance on using the platform effectively?
- Can I provide support and resolution for users' technical problems, ensuring a smooth and trouble-free experience on the platform?
- Can I access financial reports and data to analyze the platform's financial performance and make informed decisions?
- Can I configure system settings to adjust and optimize platform functionality to meet fast-changing needs and requirements?

Non Functional Requirements

(Usability Reliability Performance Security)

- Is the administrator interface user-friendly, making it easy to manage user accounts, review content, and configure system settings?
- Is the system dependable, ensuring that user accounts, content review, support, and financial analysis occur accurately and consistently?
- Does the administrative system operate efficiently, even when handling a large number of user accounts, content review tasks, and system configurations?
- Is administrator access and data handling secure, maintaining the privacy and confidentiality of user information, financial data, and system settings?

Figure 4: User Story Card for an Administrator (Back Side)

3. UML Use Case Diagrams

The relationships on UML diagrams present the following:

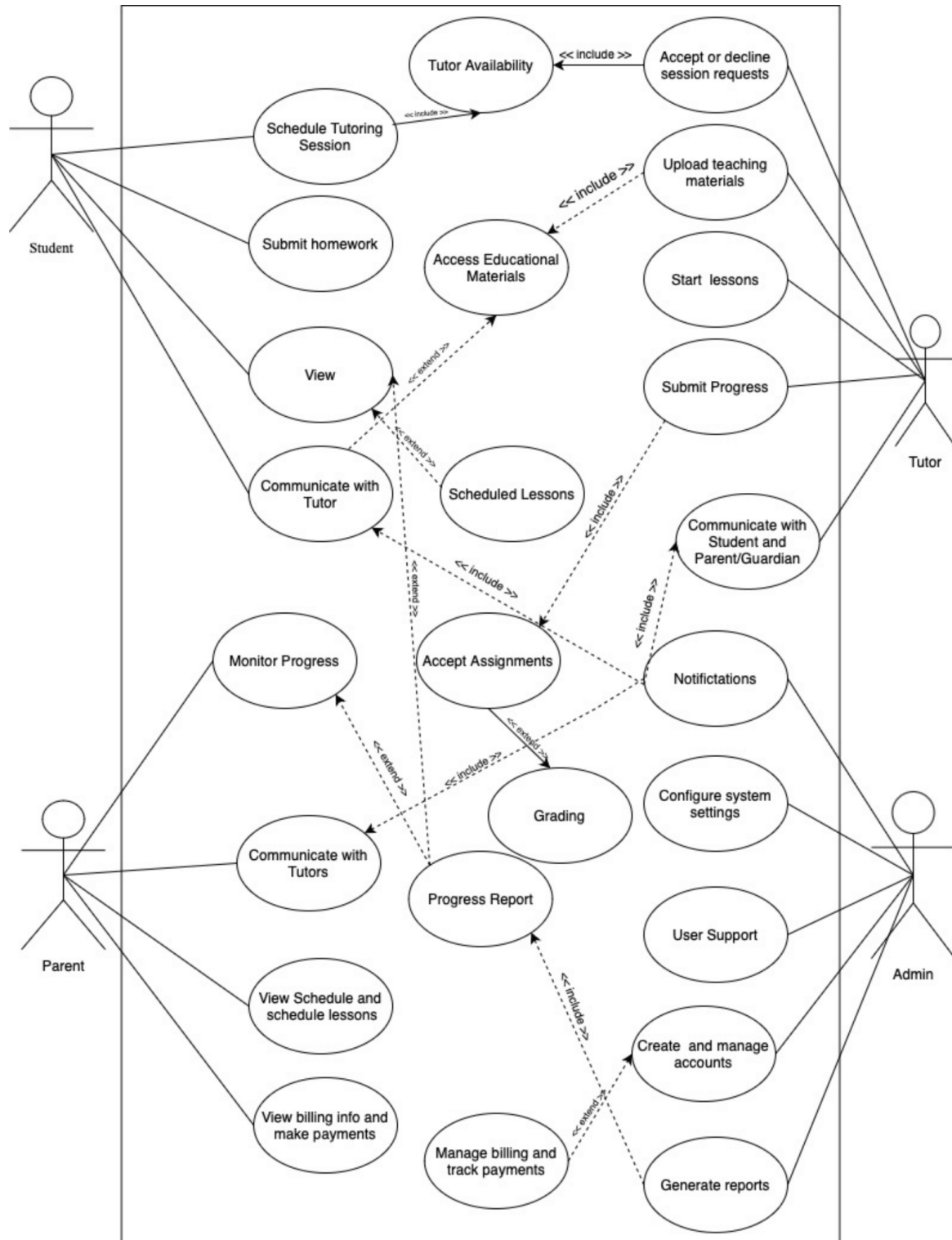


Figure 5: All relationships between actors captured in Use Case Diagrams

4. UML Class Diagrams

The UML Class Diagrams have been drawn in the following manner:

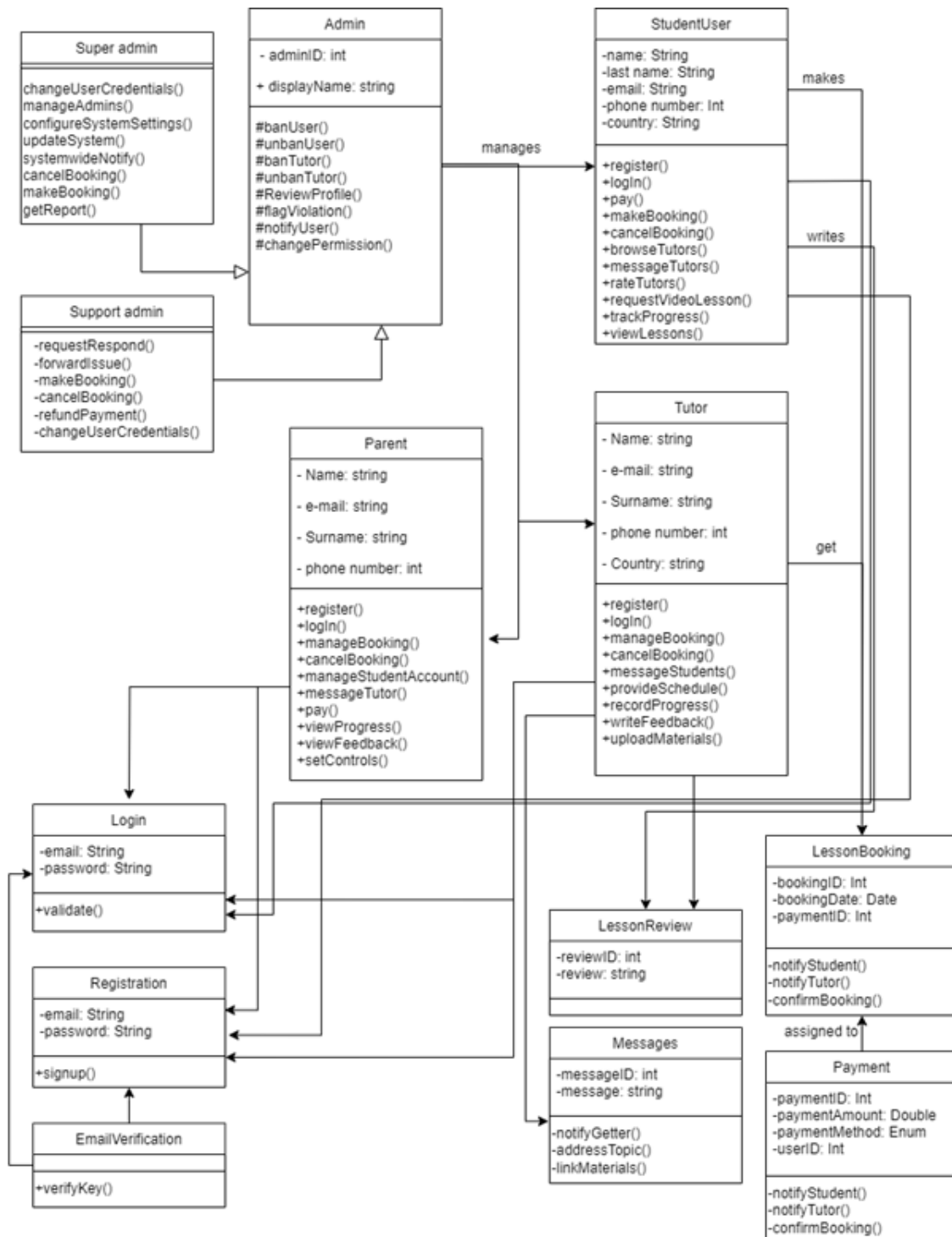


Figure 6: A Class Diagram representation

