

Software Requirements Specification

Project Name: unibe-tutor24.ch

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Revision History

Version	Date	Revision Description
.01	30.09.2015	Document initialized and structured.
.02	03.10.2015	The parts written by group members were corrected, reviewed and merged into one document.
.03	06.10.2015	Few little corrections were made, available for customer review.
.04	09.10.2015	Customer remarks and corrections were reviewed and implemented.

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Introduction

Purpose

Today, there are plenty services and platforms to find an appropriate tutor to overcome academic gap or prepare for the exams on variety of subjects such as math, physics, biology, computer science or languages. However, they are very generic, and sometimes do not meet students' requirements if a student aims to prepare for the specific course exam and needs appropriate knowledge in the exact topic.

Andrea Caracciola demands on a platform, which will be more specific and where students of the University of Bern will be able to find a tutor which fulfills their wishes and requirements. A tutor is required to be experienced; this means that he had passed the exams at specific course/seminar some years ago with a very good grade. The system should allow users to search for a tutor according to the specific search criteria's; create and edit own profile in the system; view tutors profile; exchange messages with a tutor; make an appointment for the private lessons; rate a tutor; and make a payment.

Stakeholders

Name	Role
Andrea Caracciola	Client and agent of the service provider.
University of Bern Students	System users.

Glossary

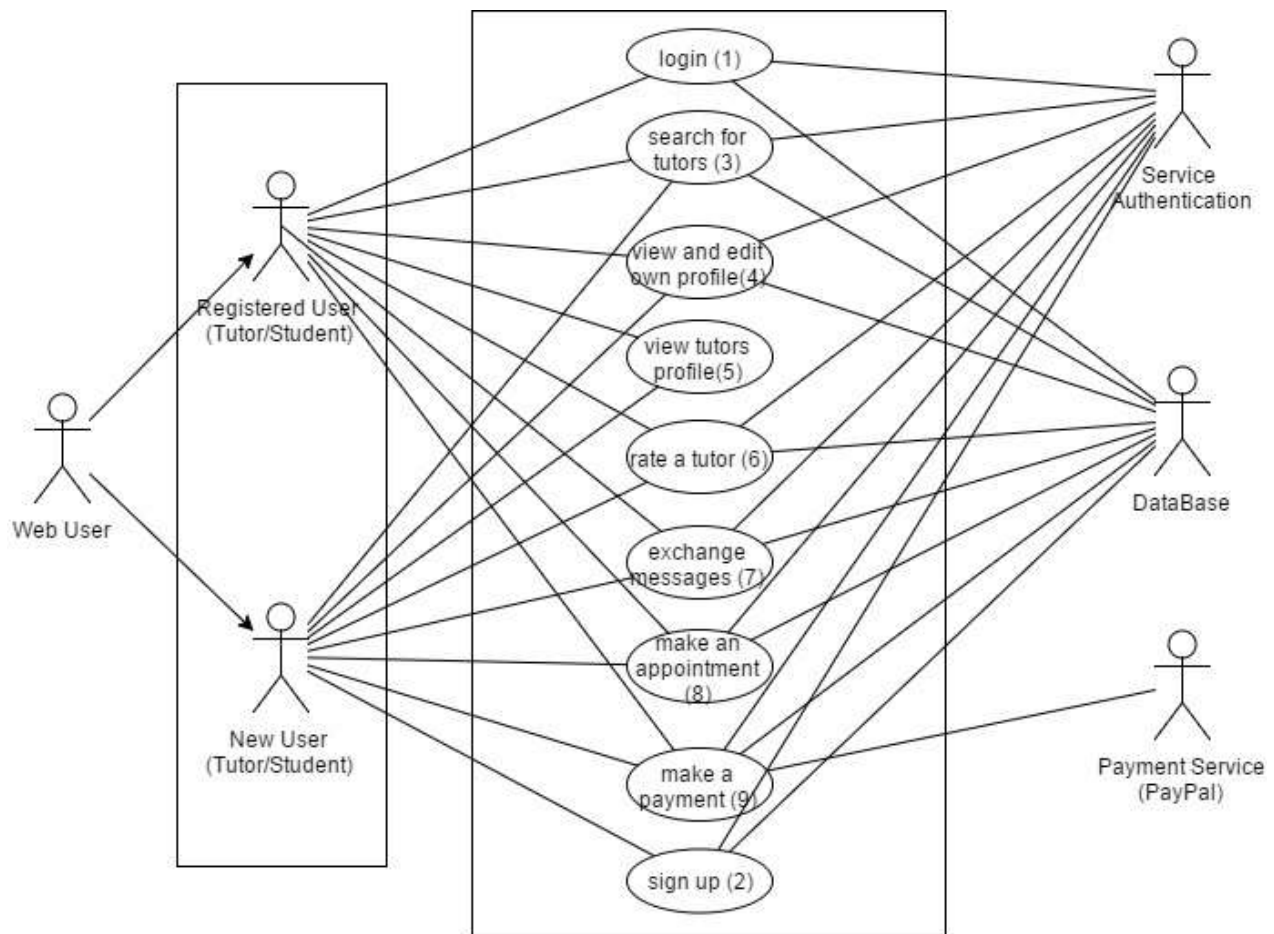
Term	Definition
Unibe-tutor24.ch	The name of the platform.
Tutor	An experienced student, who is registered at the system, has at least on course to offer and had at least one meeting with a student.
Student	A person who is currently enrolled at the University.
Stakeholder(s)	Any person who contributes to the project and has an interest in it, but who is not a developer.
Users	Tutors and students.
RE	Requirements.
NRE	Non-functional requirements.
UC	Use case.

System Overview

Every visitor of the platform have to sign up or login in order to make a search for possible tutors. There will several must have criteria's in order to make a search and find the most appropriate tutor. A logged in user is able to view and edit its own profile, to provide personal information (name, age, contacts, location, field of study, courses provided, and timetable with available private lessons, etc.), to view tutors profile, exchange messages with registered users, and make a payment using PayPal.

Use Cases

UML diagram



UC – 1 Login

Actors	Users (registered students and tutors)
Description	As a user I want to login to view and modify my personal account, or search for tutors, or make payment.
Trigger	User clicks on the 'Login' button, and lands on page having an account.
Pre-conditions	<ol style="list-style-type: none">1. User has already created a personal profile and registered on the system.2. User is not log in to the system.3. User has provided valid username and password.
Post-conditions	User is logged in to the system.
Main scenario	<ol style="list-style-type: none">1. User browses the web-page.2. User click on the 'Login' button.3. User fills in login form (enters username and password).4. System validates if the username in the database.5. System validates if the password correct.6. User is logged in.
Alternative scenario	<p>6.1. The user is not registered in the system and username is not found in the database. Then log in process will terminate and the system will display the error message 'no such user found, please proceed to sign up'.</p> <p>6.2. The user forgot the password and the password don't match with the username. The system displays the error message 'incorrect password'. User chooses reset password, provides his account email address and receives rese instructions.</p> <p>6.3. User doesn't fill all required fields on the login form. Then system will display the error message 'please, fill all fields'. User corrects and recommits the form. Then user is logged in if system validates the username and password.</p>
Special requirements	Password reset e-mail should be sent within a minute.
Notes	Should we use email address as a username or user creates specific username or system can automatically provide username by matching the surname and first name of the user.

UC – 2 Sign up

Actors	Potential users
Description	As a new user I want to register in the system and create my own profile in order to find a tutor and to be able to benefit from other activities on the platform.
Trigger	User clicks on the ‘Sign up’ button.
Pre-conditions	<ol style="list-style-type: none">1. User is not registered in the system yet.2. There is no other user with the similar username on the system.3. All mandatory profile data is filled properly and valid such as first name, last name, username (e-mail address), password, and password repetition.
Post-conditions	<ol style="list-style-type: none">1. User has a valid user account with personal information stored in the database (first name, last name, username, and password).2. User is logged in to the system.
Main scenario	<ol style="list-style-type: none">1. User clicks on ‘Sign up’ button and is redirected to the registration page.2. User enters personal information3. System stores the registration information about the user into the database.4. The system send activation link to the users’ email address in order to validate the account.5. User activates account with activation link.6. User is logged in automatically.
Alternative scenario	<p>6.1. Username is already used and exists on the database. Then system will display the error message ‘username is already used’. The user will provide another username.</p> <p>6.2. User doesn’t fill all required fields on the login form. Then system will display the error message ‘please, fill all fields’. User corrects and recommits the form. Then user is logged in if system validates the username and password.</p>
Special requirements	<ol style="list-style-type: none">1. Confirmation email has to be sent less than in one minute.2. The system database should exist.
Notes	<ol style="list-style-type: none">1. Should we use e-mail address as a username?2. Is it enough to ask for first name, last name, username and password at first stage of registration?3. If not, what information has to be required by the system?4. What information about user is public/private?

UC – 3 Search for a tutor

Actors	Users
Description	As a user I want search for specific course so I can find tutors for the exact course and prepare for the exam.
Trigger	User enters or chooses from the options the course name or term in the search field and click on the ‘Search’ button.
Pre-conditions	<ol style="list-style-type: none">1. User is logged in.2. User enters valid course name.
Post-conditions	<ol style="list-style-type: none">1. All courses matching the search term are displayed.2. All results are linked with matching and appropriate tutor profile.
Main scenario	<ol style="list-style-type: none">1. User enters a course name.2. All existing tutors for the searched course and matching with the course name are displayed.3. The user views the tutors profiles provided from the search.
Alternative scenario	<ol style="list-style-type: none">3.1. User enters invalid course name or terms that are not in the list of the search filter, or the entered course doesn’t have a match with a tutor on the database. Then system will display the error message ‘no tutor found, please provide another term’.
Special requirements	-
Notes	<ol style="list-style-type: none">1. If the search bar is empty and user click on the ‘Search’ button, should the system display all the available tutors?2. Should the user see the profile picture of the tutor in the result page?3. The following information about tutor must be shown: name, region, short summary about academic achievements, timetable, rating from other students, achieved notes of lectures.

UC – 4 View and edit own profile

Actors	User (Logged in tutor or student)
Description	As a user I want to see my personal profile, to be able to modify, add or remove data. As a student I might want to become a tutor, and have to change personal information and update my profile. As a tutor I want to see messages from students, update profile by adding lectures, courses, modified timetable, grades, etc.
Trigger	User clicks on the link to his own profile.
Pre-conditions	1. User is logged in.
Post-conditions	1. Database updates the users profile after submission of changes by the user. 2. The updated profile is available instantly after modification.
Main scenario	1. User selects to edit the profile. 2. User adds, changes, removes existing personal information. 3. User saves the changes. 4. Database refreshes the changed profile and the updated profile is available online.
Alternative scenario	4.1. For students, there is optional opportunity to become a tutor by setting extra information about the price for private lessons per hour (CHF), the courses and grades, and timetable. 4.2. For tutors there is extra information about students' payments and commission fees he have to pay.
Special requirements	1. The appointments agreed by the tutor have to be displayed on both tutors timetable, and students calendar.
Notes	1. Should it be possible to deny the appointment after its approval? 2. When does the student should make a payment, before the first appointment or afterwards?

UC – 5 View tutors profile

Actors	Users (Logged in tutor or student)
Description	As a user I want to see the personal profile of the tutor so I can get information about his academic skills, the grades and offered courses, the flexibility of the timetable, and may be to make an appointment if provided information suits me.
Trigger	User click on the profile link.
Pre-conditions	<ol style="list-style-type: none">1. User is logged in.2. The tutor profile exists.
Post-conditions	<ol style="list-style-type: none">1. The tutor's public data is displayed such as first name, last name, age, price, lectures with grades, and availability on a timetable, his description and profile photo.
Main scenario	<ol style="list-style-type: none">1. User clicks on the profile link.2. The profile data is displayed (public data only).
Alternative scenario	-
Special requirements	-
Notes	<ol style="list-style-type: none">1. If the interested student sends message to the tutor should the students profile data be visible to the tutor?2. Should booked timeslots be visible on the timetable of the tutor? Or we need to show only the available free timeslots?

UC – 6 Rate a tutor

Actors	Students (Logged in)
Description	Students have possibility to rate the tutors with they have had lessons. The rating is available only for registered students.
Trigger	Student clicks on the rating on the tutors' profile.
Pre-conditions	<ol style="list-style-type: none">1. Student is logged in.2. Student and tutor had at least one lesson together.
Post-conditions	<ol style="list-style-type: none">1. The user rates the tutor.2. The rating link is not available afterwards for this exact tutor and for this student.
Main scenario	<ol style="list-style-type: none">1. User clicks on the rating on the tutors' profile.2. User selects one of the values on the scale.3. The last selected value of the user is stored.
Alternative scenario	-
Special requirements	-
Notes	<ol style="list-style-type: none">1. The student is able to rate each tutor once only.2. Which rating scale will be best to use? (Points from 1 to 5, or definitions from bad to excellent, etc.)

UC – 7 Exchange messages

Actors	Users (Logged in tutors or students)
Description	Students and users are able to communicate with each other by sending private messages inside the platform without the need to provide personal email or phone number.
Trigger	User clicks on the 'Messages'.
Pre-conditions	1. User is logged in.
Post-conditions	1. Every sent message by tutor or student there exist one in the inbox of the recipients (student, tutor).
Main scenario	<ol style="list-style-type: none">1. User clicks on the 'Messages' link.2. The user can see his inbox, where all received messages are stored. User can read, delete or reply to them. The name of sender is displayed.3. The user can see his outbox, where all sent messages are stored. User can read or delete the messages. The name of sender is displayed.
Alternative scenario	<ol style="list-style-type: none">3.1. The user can click on the "Send message" button on the tutor's profile, the user is able to create new message to the corresponding tutor. Then click send and the message will be delivered to that tutor.
Special requirements	-
Notes	<ol style="list-style-type: none">1. What is the maximum limit of the message? Should it be limited to the 300 characters or more/less?2. How many (the max)messages should be shown on the inbox and outbox?

UC – 8 Make an appointment

Actors	Users (Logged in student and tutor)
Description	<p>As a student I want to be able to make appointments with the tutors I have chosen.</p> <p>As a tutor I want to receive notifications about appointment requests from students and to be able to accept or reject the appointment request.</p>
Trigger	Student clicks on the 'Make an appointment' button on tutors' profile.
Pre-conditions	<ol style="list-style-type: none">1. Student is logged in.2. The available timeslots which is not booked or reserved are chosen.
Post-conditions	<ol style="list-style-type: none">1. The appointment data is saved in the database.2. The tutor and student are informed about the appointment.
Main scenario	<ol style="list-style-type: none">1. Student goes to the tutors profile page, and chooses the available timeslot from the displayed timetable and clicks on 'Make an appointment' button.2. The student gets a notification that timeslot is reserved and user has to wait for tutors reply.3. Tutor receives a message about appointment request and clicks on the 'Accept' appointment link.4. The appointment is made, both tutor and student receive confirmation message about the appointment.
Alternative scenario	<ol style="list-style-type: none">4.1. The tutor click on the 'Reject' appointment link. The students receives message which informs him that the appointment was rejected. The timeslot then goes back to the 'available' status.
Special requirements	-
Notes	<ol style="list-style-type: none">1. What kind of information has to be provided in the appointment confirmation message (Student, Tutor names, course, date, time, place, and price)?2. What should happen if tutor ignores the appointment request without giving reply to the 'Accept' and 'Reject' options?3. How tutor knows which of the courses were booked?

UC – 9 Make a payment

Actors	Students (Logged in)
Description	After the appointment approval student and tutor can exchange messages, and student is able to make a payment for the first lesson online.
Trigger	Student clicks on the ‘Make a payment’ button on the tutors’ profile.
Pre-conditions	<ol style="list-style-type: none">1. Student is logged in.2. Student clicks on the ‘Make a payment’ button on the appropriate tutors profile page.
Post-conditions	<ol style="list-style-type: none">1. The payment is confirmed.2. Tutor is notified about payment.
Main scenario	<ol style="list-style-type: none">1. Student receives appointment confirmation message.2. Student clicks on the ‘Make a payment’ button.3. Student checks and approves the tutors personal information, the course name and the appointment date.4. Student provides payment details, which then is validated by the payment service (PayPal).5. The payment is accepted.6. The student and tutor are informed by message about payment.7. The student is now able to see tutors private information such as phone number, personal email address.
Alternative scenario	<ol style="list-style-type: none">7.1. The payment details are invalid or entered details are not enough. The system will display the error message ‘error, payment details are invalid’. The student will be given opportunity to re-enter payment details.
Special requirements	<ol style="list-style-type: none">1. PayPal account for the tutor and for student.
Notes	<ol style="list-style-type: none">1. What kind of tutors personal detailed have to be approved by the student before payment?2. What types of payment should be accepted, only PayPal or any other options?

Specific requirements

Functional requirements

Nº	Description
RE-1	Every public user is able to register to the system as a tutor or a student.
RE-2	A registered user is able to log in to the system with his email-address and password.
RE-3	For every new user, it is mandatory to provide first name, last name, e-mail address, password in order to successfully register into the platform.
RE-4	The registered students and tutors can reset their passwords using own e-mail address assigned to the profile account.
RE-5	The tutor can list all courses on his profile that he has successfully completed specifying the mark they got on the exam.
RE-6	The search of the tutor is done through the only one criteria – the course name.
RE-7	The data displayed after the search is the tutors full name, the course name, price and rating.
RE-8	The search result shows only exact matching between search criteria and stored data.
RE-9	If a user logged in, he can view the tutors profile page and get more information by clicking on the tutors name on the search results page.
RE-10	In the profile page of the tutor the following data are displayed: first name, last name, age, lectures with grades, some academic background, price, rating, timetable with timeslots, and the profile picture.
RE-11	Logged in student is able to make an appointment by requesting in on the tutors profile page. The user has to select available timeslot on the tutors timetable and click 'make an appointment'.
RE-12	The tutor is able either accept or reject the appointment requests.
RE-13	Registered and logged in student is able to change his profile into the tutors profile by editing personal profile page and adding information about at least one course, the grades, the price per hour for the lesson, and provide timetable.
RE-14	A Tutor is able to add, remove or modify the information about courses and grades.
RE-15	A registered user is able to add or remove profile picture.
RE-16	A registered user is able to send and receive private message.
RE-17	A registered user is able to make searches infinitely many times.
RE-18	The first name, last name, e-mail address are static and can't be changed after the registration approval.
RE-19	The price per lesson is also static and cannot be modified after first approval.
RE-20	The registered student can rate a tutor only once, if they have had at least one

	lesson.
RE-21	The average rating is calculated and displayed to all registered users.
RE-22	The student is able to make a payment using PayPal account.
RE-23	The payment confirmation allows the registered student to see tutors private contact details such as a phone number and personal email address.
RE-24	Any registered profile on the platform is visible only to the registered users.
RE-25	A user can delete his profile.

Non-functional requirements

Nº	Description
NRE-1	Registration confirmation emails should be sent in less than 1 minute.
NRE-2	The language of the platform is English.
NRE-3	The application should run on the desktop versions of the Google chrome or Firefox web-browsers.
NRE-4	Tests should cover at least 70% of the source code.
NRE-5	The code has to be sufficiently documented.