**USE CASE MODEL**

**Tutor Application**

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Chart, diagram, bubble chart

Description automatically generated**DIAGRAM 1:**

**DIAGRAM 2:**

**Diagram

Description automatically generated**

**Diagram 1 Use Cases**

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| --- | --- | --- | --- |
| Title: | **Private Message** | | |
| **Description**: | Enables users to message each other in private. | | |
| **Use Case ID** | 00 | | |
| **Related User Story ID’s** | 2 | | |
| **System Under Design:** | Tutor Application | | |
| **Primary Actor**: | General User | | |
| **Participants**: | None | | |
| **Goal**: | Users expect to send a message to another user, and see messages sent by other users. | | |
| **Following Use Cases**: | None | | |
| **Invariant**: | None | | |
| **Precondition**: | Users must have created a profile to be able to private message. | | |
| **Success Postcondition**: | Message is delivered/received. | | |
| **STEPS**:   1. User A opens User B’s profile and clicks the private message icon on their profile 2. System opens a chat window between both users. 3. User A enters their message. 4. User A presses the deliver message button. 5. System encrypts the plaintext to ciphertext entered and sends it to user B. 6. System decrypts the ciphertext back to plaintext once user B receives the message. 7. System notifies user B through a pop up icon. 8. User B clicks / taps the icon and opens the message. | | **ALTERNATIVES** |  |

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| --- | --- |
| Title: | **Log In** |
| **Description**: | The steps of logging into the tutor application |
| **Use Case ID** | 01 |
| **Related User Story ID’s** |  |
| **System Under Design:** | Tutor Application |
| **Primary Actor**: | General User |
| **Participants**: | None |
| **Goal**: | Log user in successfully |
| **Following Use Cases**: | Verify Password |
| **Invariant**: | None |
| **Precondition**: | System displays log in button. |
| **Success Postcondition**: | User is logged in |

**Main Success Path**

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| --- | --- |
| **ACTOR:**  1)User clicks log in button.  3)User enters username and password and presses Submit button. | **SYSTEM RESPONSES:**  2) System displays log in screen.  4) System verifies password (<<include>> relationship). |

**Exception Path**

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| --- | --- |
| **ACTOR:**  1)user Enters Password  4) Use sees Application user home screen | **SYSTEM RESPONSES:**  2) System verifies password  3) Password is not verified, <<exception>> display error triggered |

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| --- | --- |
| Title: | **Verify password** |
| **Description**: | System verified username and password to be correct or incorrect |
| **Use Case ID** | 02 |
| **Related User Story ID’s** |  |
| **System Under Design:** | Tutor Application |
| **Primary Actor**: | User |
| **Participants**: |  |
| **Goal**: | Verify that the user entered valid username and password |
| **Following Use Cases**: |  |
| **Invariant**: |  |
| **Precondition**: | Log in use case |
| **Success Postcondition**: | Application user home screen is displayed |

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| --- | --- |
| **ACTOR:**  1)User clicks log in button.  5) User sees application home screen | **SYSTEM RESPONSES:**  2) System processes user input for username and password  3) System validates username and password  4) if correct, System displays Application user home screen |

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| --- | --- |
| Title: | **Display error message** |
| **Description**: | An error message is displayed to the user |
| **Use Case ID** | 03 |
| **Related User Story ID’s** |  |
| **System Under Design:** | Tutor Application |
| **Primary Actor**: | User |
| **Participants**: |  |
| **Goal**: | Indicate to user that their password is incorrect |
| **Following Use Cases**: |  |
| **Invariant**: |  |
| **Precondition**: | Log in use case |
| **Success Postcondition**: |  |

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| **ACTOR:**  3)User sees error message | **SYSTEM RESPONSES:**  1)System can not verify username and password  2) System displays error message |

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| Title: | **Create Profile** |
| **Description**: | Enables all users to choose between creating a student profile, or tutor profile. |
| **Use Case ID** | 04 |
| **Related User Story ID’s** | 13, 21 |
| **System Under Design:** | Tutor Application |
| **Primary Actor**: | General User |
| **Participants**: | None |
| **Goal**: | Users expect to create their own profile based on their role within the app. |
| **Following Use Cases**: | Create Student Profile, Create Tutor Profile |
| **Invariant**: | None |
| **Precondition**: | User must be logged in to create a profile. |
| **Success Postcondition**: | Profile has been created. |

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| **STEPS**:   1. User clicks / taps the ‘Create Profile’ button on their menu 2. System shows to the user two options: ‘Create student profile’, ‘Create tutor profile’ 3. User chooses between the two options. 4. User completes the required information for their chosen profile. | **ALTERNATIVES**:  4a. If the create student profile, or create tutor profile is successful, the new profile is saved.  4b. If the Create Student Profile, or Create Tutor Profile is unsuccessful, the profile is discarded. |

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| Title: | **Create Student Profile** |
| **Description**: | All UMaine students are able to create a student profile. |
| **Use Case ID** | 12 |
| **Related User Story ID’s** | 04.a |
| **System Under Design:** | Tutor Application |
| **Primary Actor**: | General User |
| **Participants**: | None |
| **Goal**: | Students of the University of Maine can enlist themselves as a student user within the app. |
| **Following Use Cases**: | None |
| **Invariant**: | None |
| **Precondition**: | User must be part of the University of Maine to create a student profile. |
| **Success Postcondition**: | All required information has been filled. |

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| **STEPS**:   1. User clicks / taps the ‘Create student profile’ button 2. System opens a new window and asks the user to insert their full name, student ID and email 3. User enters their full name, student ID and email 4. User clicks/ taps the ‘Submit’ button 5. System checks whether the user is a student at the University of Maine based on the information submitted | **ALTERNATIVES**:  5a. If the user is a student at UMaine, then the system opens up a new window containing a form that the user needs to fill with their student profile details.  5a.1. User fills in the rest of their profile  5a.2. User clicks / taps the ‘Create profile’ button  5a.3. System saves user’s information.  5b. If the user is not verified to be a UMaine student, the system will ask the user to insert their student information again (up to 3 tries), until they insert the correct information. |

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| Title: | **Create Tutor Profile** |
| **Description**: | All users who have been approved for tutoring are able to create a tutor profile. |
| **Use Case ID** | 04.b |
| **Related User Story ID’s** | 21 |
| **System Under Design:** | Tutor Application |
| **Primary Actor**: | General User |
| **Participants**: | None |
| **Goal**: | Users who have been approved for tutoring are able to enlist themselves as a tutor user within the app. |
| **Following Use Cases**: | None |
| **Invariant**: | None |
| **Precondition**: | User must have been approved for tutoring to create a tutor profile. |
| **Success Postcondition**: | All required information has been filled. |

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| **STEPS**:   1. User clicks / taps the ‘Create tutor profile’ button 2. System checks whether the user has applied to become a tutor on this app. | **ALTERNATIVES**:  2a. If the user has applied to become a tutor:  2a.1. System checks if their application is approved, declined, or under review.  2a.2. If their application has been approved:   * System opens up a new window containing a form that the user needs to fill in with their tutor profile details. * User fills in the rest of their profile * User clicks / taps the ‘Create profile’ button * System saves user’s information.   2a.3. If their application has been declined:   * System notifies the user that they can’t create a tutor profile on this application.   2a.4. If their application is under review:   * System notifies the user to wait for the result of their application.   2b. If the user has not applied:  2b.1. System notifies the user to apply for a tutor first before creating a tutor profile. |

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| Title: | **Search Tutors** | |
| **Description**: | Enables student users to search for tutors by name or subject. | |
| **Use Case ID** | 05 | |
| **Related User Story ID’s** | 9 | |
| **System Under Design:** | Tutor App | |
| **Primary Actor**: | Student User | |
| **Participants**: | None | |
| **Goal**: | Users expect to have a list of tutors that matches their search criteria. | |
| **Following Use Cases**: | None | |
| **Invariant**: | None | |
| **Precondition**: | None | |
| **Success Postcondition**: | A successful match is found. | |
| **STEPS**:     1. Student presses the ‘Search Tutor’ button in their menu. 2. System shows the student two options to pick from: ‘Search by name’ , ‘Search by subject’. | | **ALTERNATIVES**:  2a. Student clicks / taps ‘Search by name’ button.  2a.1 System opens up a new search box.  2a.2 Student enters their text in the search box.  2a.3 Student clicks / taps the search button.  2a.4 System checks whether the name matches to any tutor profile.  2a.5 System shows all the available tutor profiles (if any) that match that name.  ——————————————————————  2b. Student clicks / taps ‘Search by subject button’.  2b.1 System checks whether there is any subject with that name registered.  2b.2 System shows all the available tutor profiles (if any) for that subject. |

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| Title: | **Make Payment** |
| **Description**: | Students users can make payment to tutor users |
| **Use Case ID** | 06 |
| **Related User Story ID’s** |  |
| **System Under Design:** | Tutor Application |
| **Primary Actor**: | User (student) |
| **Participants**: |  |
| **Goal**: | Successfully transfer money from student’s bank to tutor’s profile |
| **Following Use Cases**: | Direct Deposit |
| **Invariant**: |  |
| **Precondition**: | User clicks “Transaction Center” and then “Make Payment” |
| **Success Postcondition**: |  |

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| **ACTOR:**  1)User clicks “Make Payment” button  4) User enters amount and destination (tutor)  6) User enters bank credentials or selects saved bank information | **SYSTEM RESPONSES:**  2) System displays make payment center  3) User prompts user for amount and destination  5) System prompts user for bank credentials  7) System requests withdrawal from bank  8) Payment receipt is shown and emailed to student and tutor |

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| Title: | **Direct Deposit** |
| **Description**: | Tutor can set up direct deposit for payments made from students to be deposited each week |
| **Use Case ID** | 07 |
| **Related User Story ID’s** | 24 |
| **System Under Design:** | Tutor Application |
| **Primary Actor**: | User (Tutor) |
| **Participants**: |  |
| **Goal**: | Move money from account on Tutor Application to tutor’s bank account |
| **Following Use Cases**: |  |
| **Invariant**: |  |
| **Precondition**: | Have money in account to be transferred and be a tutor user |
| **Success Postcondition**: |  |

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| **ACTOR:**  1)User clicks “Enroll in Direct Deposit” button  4) User enters bank credentials  7)User sees direct deposit information confirmation | **SYSTEM RESPONSES:**  2)System verifies that user is a tutor and has a positive balance in the application  3) System prompts user for bank credentials  5) System processes bank credentials  6)System enables entire balance to be deposited every 2 weeks on Sunday  7) System displays direct deposit information to user |

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| Title: | **Apply to Tutor** |
| **Description**: | Prospective tutors can apply through the application to be able to create a tutor profile and use the application. |
| **Use Case ID** | 08 |
| **Related User Story ID’s** | 16 |
| **System Under Design:** | Tutor Application |
| **Primary Actor**: |  |
| **Participants**: |  |
| **Goal**: | User submits tutor application |
| **Following Use Cases**: | 04.b |
| **Invariant**: |  |
| **Precondition**: | User clicks “Apply to Tutor” |
| **Success Postcondition**: |  |

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| **ACTOR:**  1)User clicks “Apply to Tutor”  3)User fills out questions  6)User views confirmation that their application has been submitted. | **SYSTEM RESPONSES:**  2)System prompts user to fill out application questions  4)System processes user input and submits application to manager account and to be reviewed application stack  5)System confirms with user their application has been submitted. |

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| Title: | **Connect with other Tutees** |
| **Description**: | Allows Tutees to interact with other tutees |
| **Use Case ID** | 09 |
| **Related User Story ID’s** |  |
| **System Under Design:** | Tutor App |
| **Primary Actor**: | Student user |
| **Participants**: | None |
| **Goal**: | Allow Students to connect and contact other students |
| **Following Use Cases**: | None |
| **Invariant**: | None |
| **Precondition**: | User must be a student.  User must have a profile. |
| **Success Postcondition**: | User is able to message and view other students’ profiles |

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| --- | --- |
| **STEPS**:     1. Student user clicks/taps search option 2. Student searches for other students 3. Student is able to view another student’s profile or send them a message | **ALTERNATIVES**:  2a. Student clicks community tab  2a. 1. Student has options to see other students with similar tutors/subject interests  2a. 2. Is able to message and see other students’ profiles |

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| --- | --- |
| Title: | **Calendar** |
| **Description**: | Calendar for user to indicate when they are available to tutor or be tutored |
| **Use Case ID** | 10 |
| **Related User Story ID’s** | 36 |
| **System Under Design:** | Tutor Application |
| **Primary Actor**: | User (Tutor and Student) |
| **Participants**: |  |
| **Goal**: | Have a schedule to be compared with other users |
| **Following Use Cases**: | 11 |
| **Invariant**: |  |
| **Precondition**: | User clicks “Edit Calendar” |
| **Success Postcondition**: |  |

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| **ACTOR:**  1)User clicks “Edit Calendar”  3)User responds to system prompts  7)User clicks “Save Changes”  9)User views confirmation screen | **SYSTEM RESPONSES:**  2)System prompts user for day and time that there are available  4)System adds and saves time to user’s calendar  6)System repeats 2-4 until User clicks “Save Changes” button  8)System provides user with confirmation that their calendar is updated |

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| --- | --- |
| Title: | **Schedule Comparison** |
| **Description**: | Allows students and tutors to compare schedules |
| **Use Case ID** | 11 |
| **Related User Story ID’s** |  |
| **System Under Design:** | Tutor App |
| **Primary Actor**: | Student user, Tutor user |
| **Participants**: | None |
| **Goal**: | Allow Students and Tutor users to compare schedules with each other to plan meetings |
| **Following Use Cases**: | None |
| **Invariant**: | None |
| **Precondition**: | User must be a student or a tutor.  User must have a profile. |
| **Success Postcondition**: | User can see another user’s schedule and it able to see them side by side with their own |

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| **STEPS**:     1. User clicks/taps calendar 2. User can view their own schedule and add/delete events 3. User is able to view another users schedule and compare their own with theirs to see available times | **ALTERNATIVES**:  2a. User clicks another users profile  2a. 2. User clicks to view their schedule  2a. 3. User is able to view the other persons schedule |

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| Title: | **Support Page** |
| **Description**: | Allows users to access a support page with resources for help with the service and contact information |
| **Use Case ID** | 12 |
| **Related User Story ID’s** |  |
| **System Under Design:** | Tutor App |
| **Primary Actor**: | All users |
| **Participants**: | None |
| **Goal**: | Allows users to seek help from the system about features or any questions |
| **Following Use Cases**: | None |
| **Invariant**: | None |
| **Precondition**: | User must be a registered user |
| **Success Postcondition**: | User is able to access a support page when needed for help |

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| --- | --- |
| **STEPS**:     1. User clicks/taps calendar 2. User can view their own schedule and add/delete events 3. User is able to view another users schedule and compare their own with theirs to see available times | **ALTERNATIVES**:  2a. User clicks another users profile  2a. 2. User clicks to view their schedule  2a. 3. User is able to view the other persons schedule a long side their own |

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| Title: | **View Grades** |
| **Description**: |  |
| **Use Case ID** | 13 |
| **Related User Story ID’s** |  |
| **System Under Design:** |  |
| **Primary Actor**: |  |
| **Participants**: |  |
| **Goal**: |  |
| **Following Use Cases**: |  |
| **Invariant**: |  |
| **Precondition**: |  |
| **Success Postcondition**: |  |

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| --- | --- |
| **ACTOR:** | **SYSTEM RESPONSES:** |

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| --- | --- |
| Title: | **Tutor Resources** |
| **Description**: |  |
| **Use Case ID** | 14 |
| **Related User Story ID’s** |  |
| **System Under Design:** |  |
| **Primary Actor**: |  |
| **Participants**: |  |
| **Goal**: |  |
| **Following Use Cases**: |  |
| **Invariant**: |  |
| **Precondition**: |  |
| **Success Postcondition**: |  |

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| **ACTOR:** | **SYSTEM RESPONSES:** |

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| Title: | **View Profile** |
| **Description**: |  |
| **Use Case ID** | 15 |
| **Related User Story ID’s** |  |
| **System Under Design:** |  |
| **Primary Actor**: |  |
| **Participants**: |  |
| **Goal**: |  |
| **Following Use Cases**: |  |
| **Invariant**: |  |
| **Precondition**: |  |
| **Success Postcondition**: |  |

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| **ACTOR:** | **SYSTEM RESPONSES:** |

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| Title: | **View Student Profile** |
| **Description**: |  |
| **Use Case ID** | 17.a |
| **Related User Story ID’s** |  |
| **System Under Design:** |  |
| **Primary Actor**: |  |
| **Participants**: |  |
| **Goal**: |  |
| **Following Use Cases**: |  |
| **Invariant**: |  |
| **Precondition**: |  |
| **Success Postcondition**: |  |

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| **ACTOR:** | **SYSTEM RESPONSES:** |

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| Title: | **View Tutor Profile** |
| **Description**: |  |
| **Use Case ID** | 17.b |
| **Related User Story ID’s** |  |
| **System Under Design:** |  |
| **Primary Actor**: |  |
| **Participants**: |  |
| **Goal**: |  |
| **Following Use Cases**: |  |
| **Invariant**: |  |
| **Precondition**: |  |
| **Success Postcondition**: |  |

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| **ACTOR:** | **SYSTEM RESPONSES:** |