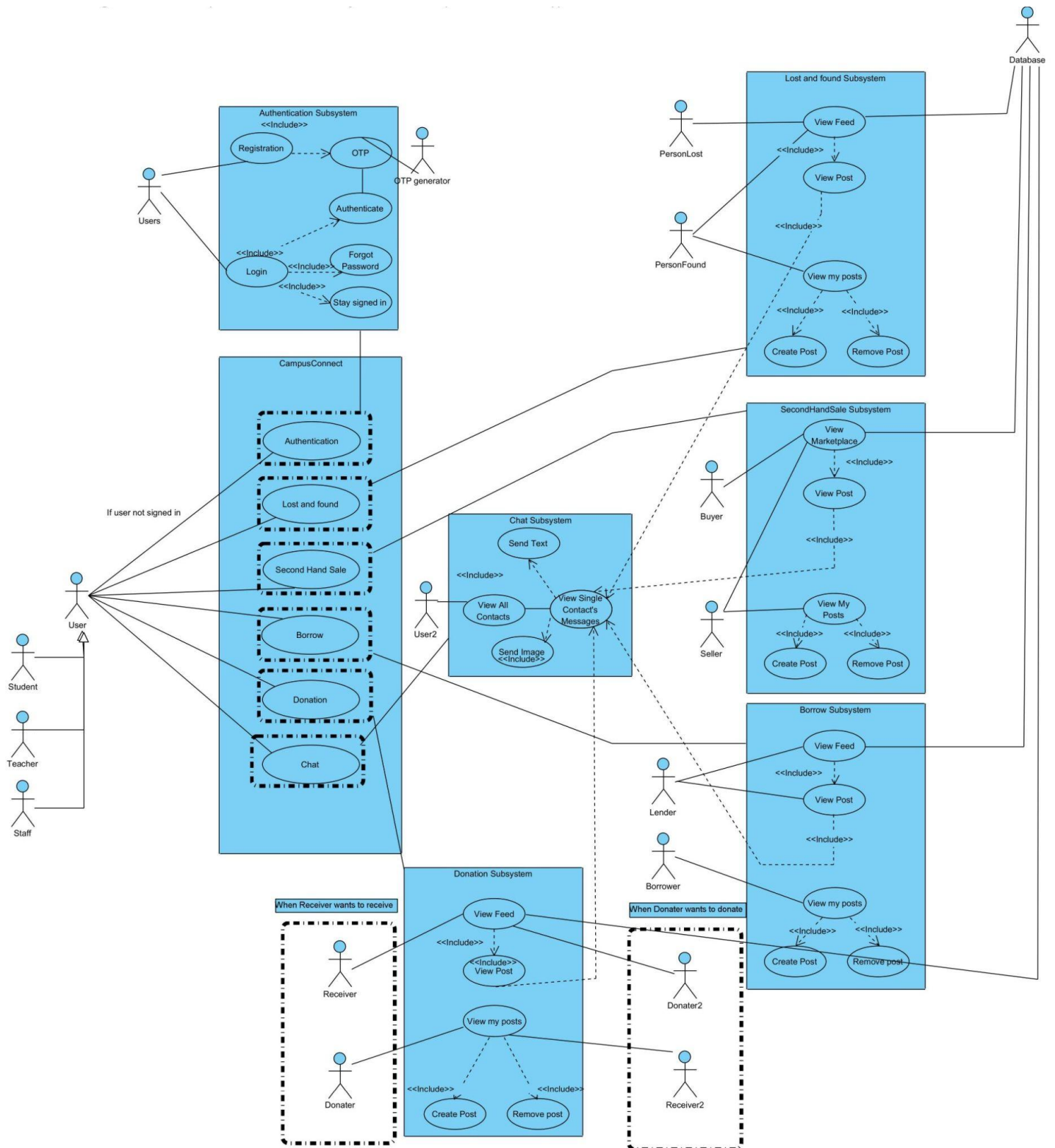# S2T-Undefined

Use case Diagram:

NOTE: .vpp can be found in same folder in Github repo

Use case Textual Specifications:

Campus Connect Subsystem:

Name		Authentication
Actors		Student, Teacher, Staff, Database, OTP service
Entry Conditions		User is not logged in
Summary		Initiated when the user opens the web app. If the user is not signed in, they will be presented with the login page.
Flow	**Normal**	If the user is an existing user, they will enter their credentials and click sign in. Their details will be verified by the verification system by comparing them to details stored in the database. If entered credentials are correct, they will be signed in, and will be redirected to the home page.
	Alternative	If the user is not an existing user, they will click on the registration button, and they will be redirected to the registration page. They will enter their bilkent email, create a password, and click on register. Their email will be verified with email OTP service. After successful verification, they will be redirected to homepage
NFRs		Verification service should take as little time as possible(performance NFR) Credentials should be stored securely and using encryption(data security NFR)
Exit Conditions		The user successfully logs in to the system, and is redirected to the homepage The new user completes the registration process, including email verification, and is redirected to the homepage. The user attempts to log in but enters incorrect credentials multiple times, leading to a temporary account lock or redirection to a password reset page.

Name		Lost and Found
Actors		Student, Teacher, Staff, Database
Entry Conditions		User is logged in
Summary		Allows users to post details about items they have lost or found within Bilkent.
Flow	**Normal**	User selects the 'Lost and Found' section. For lost items, they enter details (description, last known location, contact details). For found items, they enter item details and where it was found. The post is then submitted and displayed on the Lost and Found page.
	Alternative	If the user finds their item or the owner of a found item, they can mark the post as resolved.
NFRs		Efficient loading and creation of listings (performance NFR). Privacy of contact details (privacy NFR).
Exit Conditions		The user successfully posts about a lost or found item. The user chooses to take down the post. The user logs out or closes the application. The user marks the post as resolved after the item is found or returned.

Name	Second-hand Sales
Actors	Student, Teacher, Staff, Database
Entry Conditions	User is logged in
Summary	Enables users to post and view second-hand items for sale.
Flow	**Normal**	User accesses the 'Second-hand Sales' section. To post an item, they provide item details, price, and contact information. Other users can view these listings and contact the seller.
	Alternative	Users can update or delete their listings.
NFRs	Efficient loading and creation of listings (performance NFR). Privacy of contact details (privacy NFR).
Exit Conditions	A second-hand item is successfully posted for sale. The user edits or deletes an existing sales post. The user closes the sales section or logs out. A sale is completed, and the seller marks the item as sold.

Name	Borrow
Actors	Student, Teacher, Staff, Database
Entry Conditions	User is logged in
Summary	Facilitates borrowing and lending items within the Bilkent community.
Flow	**Normal**	Users navigate to the 'Borrow Items' section. They can post requests for items they wish to borrow or offer items for lending. Users respond to posts to arrange borrowing/lending.
	Alternative	Users can withdraw requests or offers.
NFRs	Efficient loading and creation of listings (performance NFR). Privacy in communication (privacy NFR).
Exit Conditions	A request to borrow an item is posted, or an offer to lend an item is made. The user withdraws their borrowing request or lending offer. The borrowing/lending arrangement is completed. The user exits the borrowed items section or logs out.

Name	Donation
Actors	Student, Teacher, Staff, Database
Entry Conditions	User is logged in

Summary		Allows users to donate or request donations for items.
Flow	Normal	Access the 'Donation Items' section. Post items available for donation or request needed items. Arrange for the exchange of items.
	Alternative	Cancel or modify posts.
NFRs		Efficient loading and creation of listings (performance NFR). Privacy in communication (privacy NFR).
Exit Conditions		A donation offer or request is successfully posted. The user modifies or removes their donation post. The donation exchange is finalized. The user exits the donation items section or logs out.

Name		Chat
Actors		Student, Teacher, Staff, Database
Entry Conditions		User is logged in
Summary		Enables direct messaging between users for communication.
Flow	Normal	Users select the chat option from the menu. They can search for and select other users to chat with. Exchange messages through a secure interface.
	Alternative	Block or report inappropriate users.
NFRs		Real-time messaging (performance NFR). Secure and encrypted communication (data security NFR).
Exit Conditions		A chat session between users is ended. The user logs out or exits the chat interface. A user blocks or reports another user, ending the chat. The application is closed or the user navigates away from the chat section.

NFR (Non Functional Requirements):

- Product Requirements:

    - Usability (UI/UX)

        - The UX should be easy to understand and the layout should be easy to navigate. The user should not feel overwhelmed or confused. However, too much data should not be abstracted away, causing the user to go through multiple screens to get to the desired location. Also, the design should not be too distracting (e.g. off putting colours, flashing

colours, etc). The buttons should be of appropriate scale (not too big or too small) and should have hover/touch changes to appear responsive to the user.

- ○ Responsive UI
    - ■ The UI should be scalable on desktop, mobile and tablet views. This will be done by making menus collapsible for some devices, options placed in different places and auto adjusting element dimensions to ensure data does not overflow or disappear.
- ○ Speed
    - ■ The web app should load quickly and should prioritise loading the main items first. The performance should not affect user experience.
- ○ Security
    - ■ Only Bilkent members will be included on the platform. This will help reduce frauds and scams by ensuring everybody can be held responsible. This is one feature that sets this app apart from the competitors, where anybody can interact. We will use bilkent emails to ensure this.
- Organisational Requirements:
    - ○ Deadline management
        - ■ We have set deadlines for the project parts to track progress and ensure the final product is delivered on time.

Tech stack:

- Database: MongoDB
- Backend: Express, NodeJS, Socket.io
- Frontend: React