

# **CS2310: Software Engineering Final Project**

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People are living longer but older adults and young children are having less and less contact with each other. The purpose of the TOPY Project is to promote intergenerational learning (IG) and activity experience for old people and create new possibilities for older adults and young children to learn together and benefit from each other's company. We are going to build a web application that aims to serve as a management tool for the Together Old, Pet, and Young (TOPY) Project. The tool aims to facilitate old people, young children, and pets to spend time together in existing TOPY stations. The system is a web application that manages scenarios within the TOPY project scope. In this system, we would assume that the parent is going to operate the tool on behalf of the child and pet and the old person will be operating it by himself/herself.

Below we describe the main focus of our project and how each participant would engage with the TOPY interface.

### **Parent/Individuals logging in to the website:**

1. Portal for registering child/pet and setting time of meetings ( Check for slots )
2. Select the senior citizen from a list which is based on the selected slot.
3. After a meeting is arranged, a portal requests an extension.
4. A page to show notifications and warnings sent by the admin.
5. Notification types: Meeting/extension confirmation details and Time limit approaching/extended warnings.
6. Rate/review senior citizens' profiles after the meeting.

### **Senior Citizen:**

1. Portal to register themselves and provide background information.
2. Once approved, a portal to specify availability each day.
3. A page to show notifications and warnings sent by the admin.
4. Notification to let them have a meeting is set up with details.
5. Recommend other senior citizens.

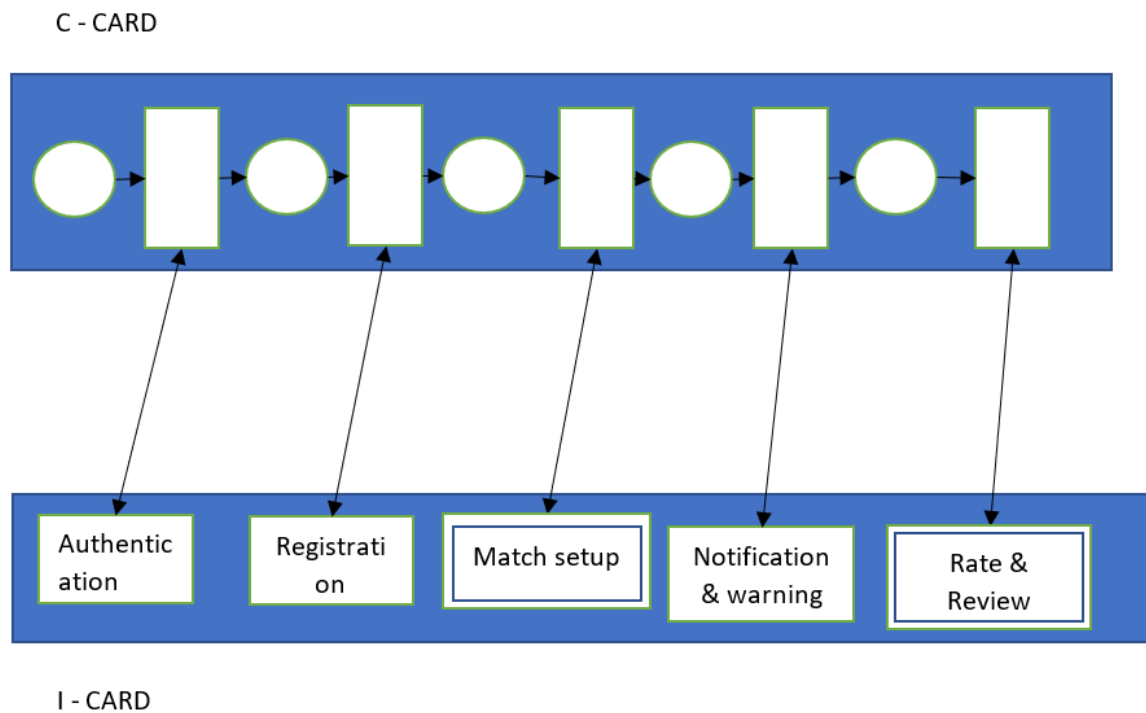
### **Admin:**

1. Register incoming requests from parents.
2. Register incoming requests from senior citizens after background check.
3. Display a list of slots available and senior citizens in each slot.
4. Accept incoming requests from parents and set up meetings.

5. Send notifications about the confirmation of meetings to all entities.
6. Send reminders/warnings to entities regarding the nearing end of time of meetings.
7. Accept incoming requests for time extensions from parents.
8. Notification portals for all such requests.
9. Portal to see a list of meetings and corresponding entities in each day and also past history.

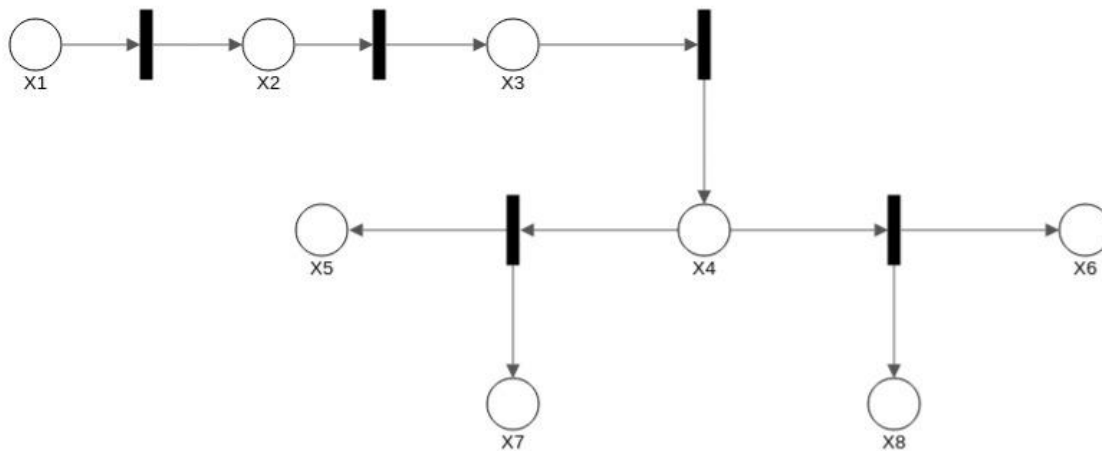
#### Novel Ideas Added:

1. Enabling individuals/parents to request extension for a meeting in progress.
2. Enabling individuals/parents to rate/review senior citizens whom they met with.
3. Enabling senior citizen to recommend other senior citizens



Below are the Petri Nets for the main super components.

### Setup Matches:

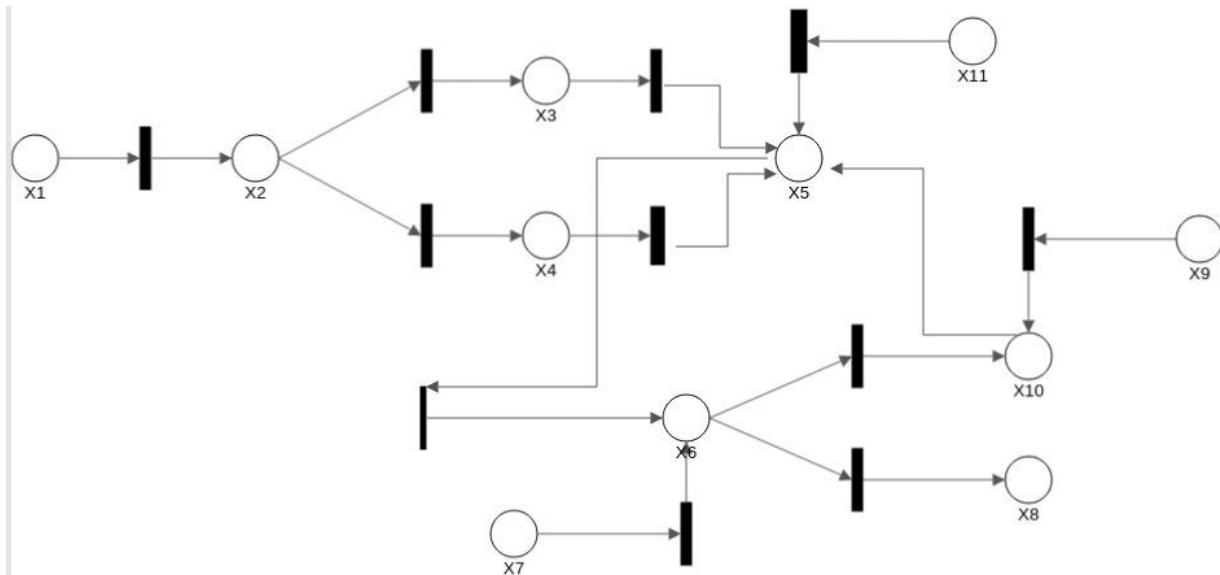


X1	User sends a message to request a meeting
X2	User views available slots from the portal
X3	User selects meeting slot and senior citizen using the portal
X4	Admin confirms meetings
X5	Senior citizen can't commit to meeting
X6	Senior citizen accepts meeting
X7	Meeting Rejected
X8	Meeting Accepted

Here, the User first sends a message to set up a new meeting and selects available meeting slots and senior citizens from the portal. Once the admin confirms the availability, they proceed to send confirmation details to users and senior citizens. Once both have accepted the invite, the meeting is set up.

### Warning/Notification System:

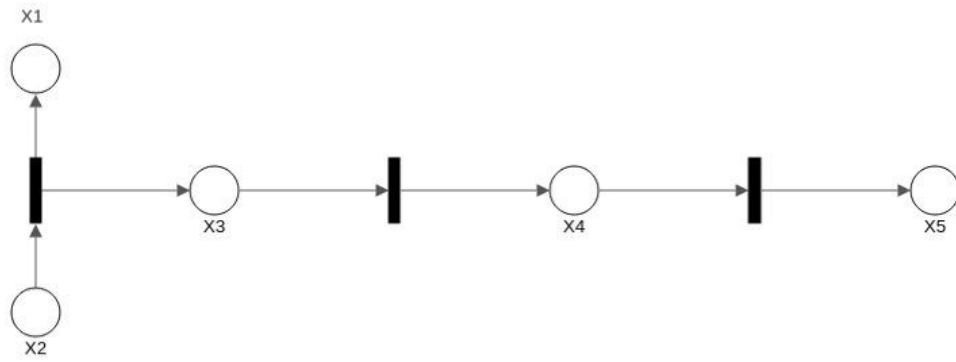
Here, once the meeting is in progress, the admin polls the meeting schedule and sends warnings/notifications to users when the meeting time is about to end. At this point, the user can either close the meeting, or request an extension for the meeting. The admin processes this request and confirms with the senior citizen. (Caveat: We list availability of slots and citizens, giving the senior citizens a buffer time of 1hr between meetings). If the senior citizen accepts, the meeting is extended.



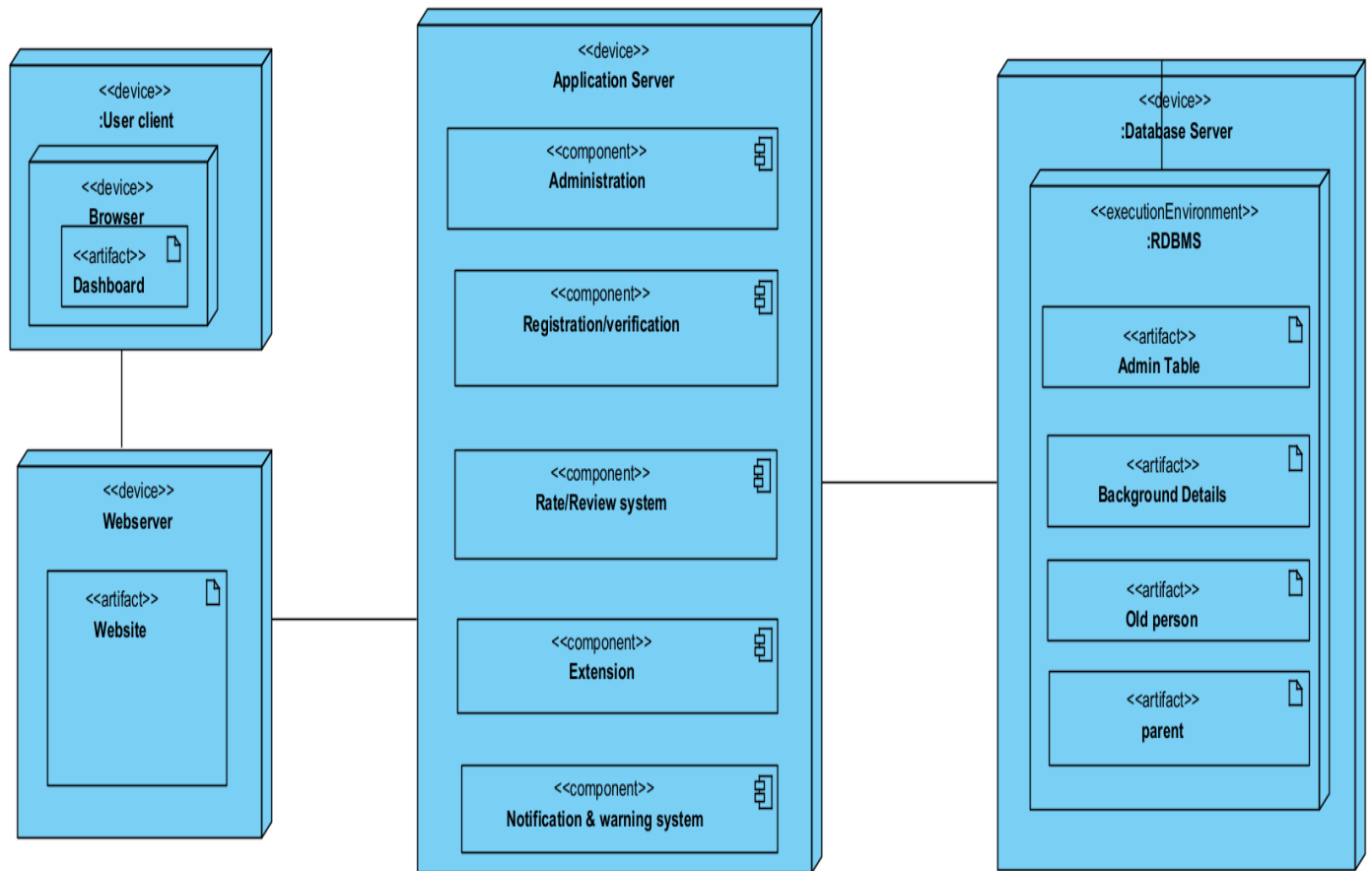
X1	User requests a meeting.
X2	Admin setups meeting.
X3	User confirms meeting invite.
X4	Senior citizen confirms meeting invite.
X5	Meeting in progress.
X6	Send's warning that the meeting deadline is nearing.
X7	Meeting deadline approaching.
X8	User picks up the child/pet and the meeting is concluded.
X9	User asks for extension.
X10	Admin confirms extension.
X11	Senior citizen accepts extension request.

## Rate and Review:

This feature allows users to Rate and review a senior citizen after a meeting is over. The user could look at past meetings and select a senior citizen they've interacted with and leave ratings and reviews by submitting a form to the admin.



X1	User is idle
X2	User has past meetings.
X3	User sends a message to rate/review senior citizens they've interacted with.
X4	User fills up a form in the portal.
X5	User successfully rates and reviews the senior citizen which is now visible.



Deployment diagram illustrating components for the project