

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)

1. Steps to run TOY Scenario:

TOY Station focusses on TOY scenario where an activity can be created for a selected senior and child.

The application is built using Spring Boot and is a web application. On starting the application, the endpoint url can be accessed from the console - Open the URL: `http://localhost:8080/toysystem`

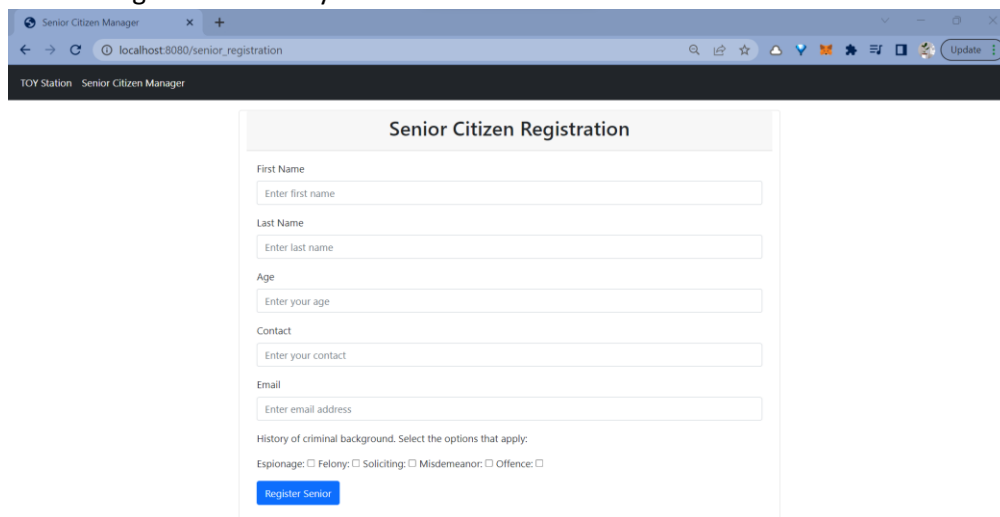
The welcome page contains the URLs to access the various components available in the TOY system.

An example TOY Scenario:

- TOY Station admin handles all the registrations and handles the application.
- TOY Station contains Senior Component, Child Component, Activity Supercomponent



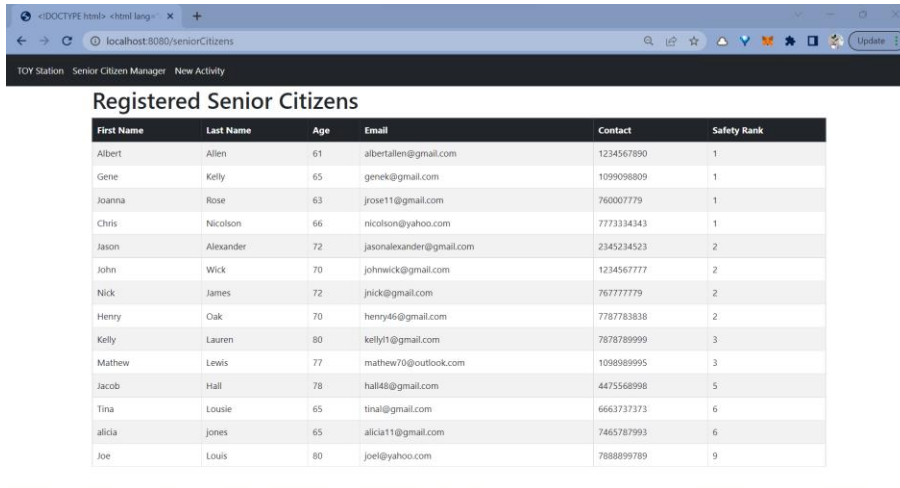
- A senior citizen wants to signup, he provides the details on the registration form to the admin and will register into the system.

A screenshot of a web browser displaying the 'Senior Citizen Registration' form. The browser's address bar shows 'localhost:8080/senior_registration'. The form is titled 'Senior Citizen Registration' and contains several input fields: 'First Name' (with placeholder 'Enter first name'), 'Last Name' (with placeholder 'Enter last name'), 'Age' (with placeholder 'Enter your age'), 'Contact' (with placeholder 'Enter your contact'), and 'Email' (with placeholder 'Enter email address'). Below these fields, there is a section for 'History of criminal background. Select the options that apply:' with four checkboxes: 'Espionage', 'Felony', 'Soliciting', 'Misdemeanor', and 'Offence'. A blue 'Register Senior' button is located at the bottom of the form.

CS2310 TOY Project Milestone 2

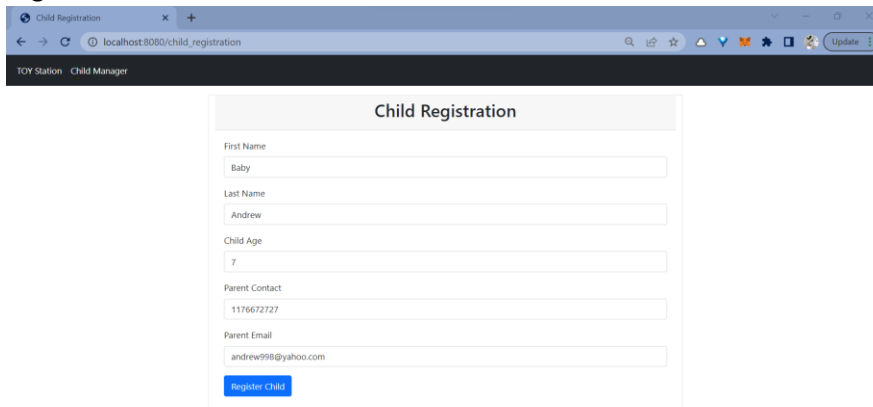
Kavya Sree Kilari (kak435@pitt.edu)

- The senior citizen is now available in the list of registered senior citizens in the order of their *safety ranking* which is a NOVEL feature in this project.



First Name	Last Name	Age	Email	Contact	Safety Rank
Albert	Allen	61	albertallen@gmail.com	1234567890	1
Gene	Kelly	65	genek@gmail.com	1099098809	1
Joanna	Rose	63	jrose11@gmail.com	760007779	1
Chris	Nicolson	66	nicolson@yahoo.com	7773334343	1
Jason	Alexander	72	jasonalexander@gmail.com	2345234523	2
John	Wick	70	johnwick@gmail.com	1234567777	2
Nick	James	72	jnick@gmail.com	767777779	2
Henry	Oak	70	henry46@gmail.com	778783838	2
Kelly	Lauren	80	kelly1@gmail.com	7878789999	3
Mathew	Lewis	77	mathew70@outlook.com	1098989995	3
Jacob	Hall	78	hall4@gmail.com	4475568998	5
Tina	Lousie	65	tinal@gmail.com	6663737373	6
alicia	jones	65	alicia11@gmail.com	7465787993	6
Joe	Louis	80	joel@yahoo.com	7888899789	9

- A parent wants to leave the child at the station, provides the child details to fill the child registration form.



Child Registration

First Name
Baby

Last Name
Andrew

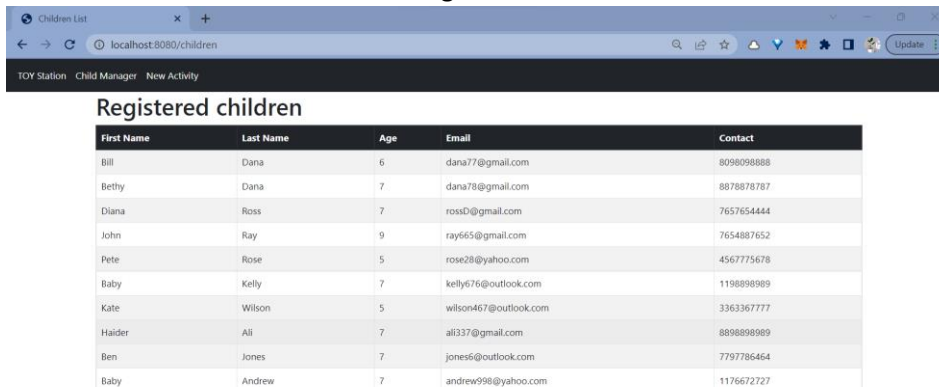
Child Age
7

Parent Contact
1176672727

Parent Email
andrew998@yahoo.com

Register Child

- Child is now available in the list of registered children.

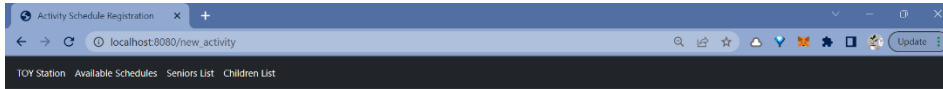


First Name	Last Name	Age	Email	Contact
Bill	Dana	6	dana77@gmail.com	8098098888
Bethy	Dana	7	dana78@gmail.com	8878878787
Diana	Ross	7	rossD@gmail.com	7657654444
John	Ray	9	ray66@gmail.com	7654887652
Pete	Rose	5	rose28@yahoo.com	456775678
Baby	Kelly	7	kelly676@outlook.com	1198898989
Kate	Wilson	5	wilson467@outlook.com	3363367777
Haider	Ali	7	ali337@gmail.com	8898898989
Ben	Jones	7	jones6@outlook.com	7797786464
Baby	Andrew	7	andrew998@yahoo.com	1176672727

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)

- The parent wants to book a schedule: The admin can get the list of available senior citizens ordered by their safety rank and available activities and create an activity for the child.



Activity Schedule Registration

Select the Child:

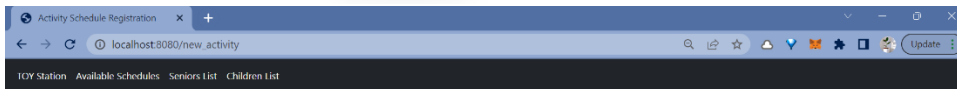
Select the Senior Citizen:

Schedule Date:

Activity Name:

Special Note:

- AlbertAllen
- GeneKelly
- JocanaRose
- ChrisNicolson
- JasonAlexander
- JohnWick
- NickJames
- HenryOak
- KellyLauren
- MatthewLewis
- JacobHall
- TinaOusie
- alicajones
- Joelouis



Activity Schedule Registration

Select the Child:

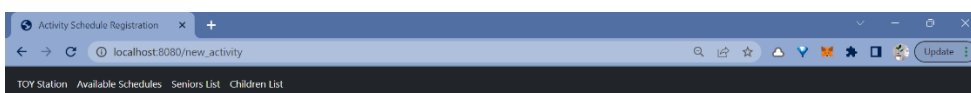
Select the Senior Citizen:

Schedule Date:

Activity Name:

Special Note:

- Book Reading
- Ball Game
- Puzzle
- Origami
- Drawing



Activity Schedule Registration

Select the Child:

Select the Senior Citizen:

Schedule Date:

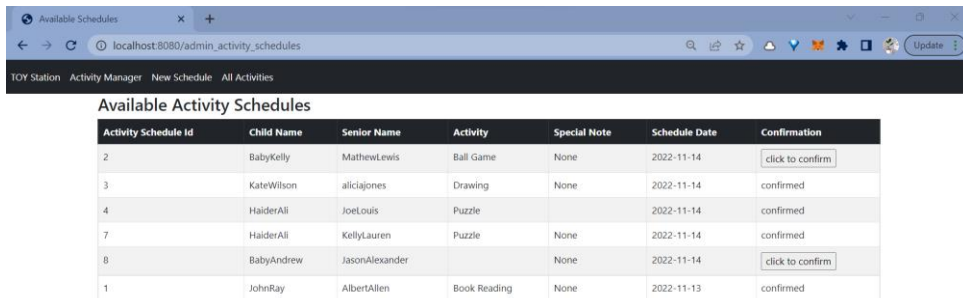
November 2022

Su	Mo	Tu	We	Th	Fr	Sa
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3
4	5	6	7	8	9	10

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)

- After selecting the details, the activity schedule can be confirmed.



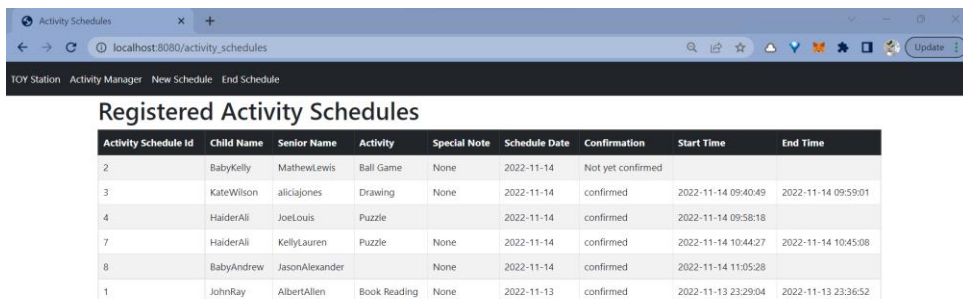
Activity Schedule Id	Child Name	Senior Name	Activity	Special Note	Schedule Date	Confirmation
2	BabyKelly	MathewLewis	Ball Game	None	2022-11-14	<input type="button" value="click to confirm"/>
3	KateWilson	alicajones	Drawing	None	2022-11-14	confirmed
4	HaiderAli	Joelouis	Puzzle		2022-11-14	confirmed
7	HaiderAli	KellyLauren	Puzzle	None	2022-11-14	confirmed
8	BabyAndrew	JasonAlexander		None	2022-11-14	<input type="button" value="click to confirm"/>
1	JohnRay	AlbertAllen	Book Reading	None	2022-11-13	confirmed



Scheduled Activity

Activity Schedule Id:

- On confirmation, schedule will be started. The start time details can be found in the list of available activities.



Activity Schedule Id	Child Name	Senior Name	Activity	Special Note	Schedule Date	Confirmation	Start Time	End Time
2	BabyKelly	MathewLewis	Ball Game	None	2022-11-14	Not yet confirmed		
3	KateWilson	alicajones	Drawing	None	2022-11-14	confirmed	2022-11-14 09:40:49	2022-11-14 09:59:01
4	HaiderAli	Joelouis	Puzzle		2022-11-14	confirmed	2022-11-14 09:58:18	
7	HaiderAli	KellyLauren	Puzzle	None	2022-11-14	confirmed	2022-11-14 10:44:27	2022-11-14 10:45:08
8	BabyAndrew	JasonAlexander		None	2022-11-14	confirmed	2022-11-14 11:05:28	
1	JohnRay	AlbertAllen	Book Reading	None	2022-11-13	confirmed	2022-11-13 23:29:04	2022-11-13 23:36:52

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)

- The parent returns to TOY station to claim the child- toy admin ends the schedule and schedule end time will be recorded.



The screenshot shows a web browser window with the URL localhost:8080/activity_schedules. The page title is 'Registered Activity Schedules'. Below the title is a table with the following data:

Activity Schedule Id	Child Name	Senior Name	Activity	Special Note	Schedule Date	Confirmation	Start Time	End Time
2	BabyKelly	MathewLewis	Ball Game	None	2022-11-14	Not yet confirmed		
3	KateWilson	aliciajones	Drawing	None	2022-11-14	confirmed	2022-11-14 09:40:49	2022-11-14 09:59:01
4	HaiderAli	JoeLouis	Puzzle		2022-11-14	confirmed	2022-11-14 09:58:18	
7	HaiderAli	KellyLauren	Puzzle	None	2022-11-14	confirmed	2022-11-14 10:44:27	2022-11-14 10:45:08
8	BabyAndrew	JasonAlexander		None	2022-11-14	confirmed	2022-11-14 11:05:28	2022-11-14 11:06:36
1	JohnRay	AlbertAllen	Book Reading	None	2022-11-13	confirmed	2022-11-13 23:29:04	2022-11-13 23:36:52

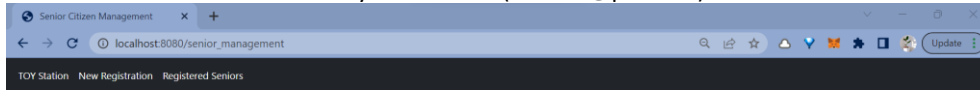
2. Demo for base-line comonents:

This TOY Station contains the below components:

- **Senior Citizen component:**

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)



Welcome to Senior Citizen Manager

- Allows a senior citizen to register.

Senior Citizen Registration

First Name
Enter first name

Last Name
Enter last name

Age
Enter your age

Contact
Enter your contact

Email
Enter email address

History of criminal background. Select the options that apply:
Espionage: Felony: Soliciting: Misdemeanor: Offence:

[Register Senior](#)

- Ranks the senior citizen based on crime background questions answered during registration. This is the senior's *Safety Rank*.
- Shows the list of Registered senior citizens.

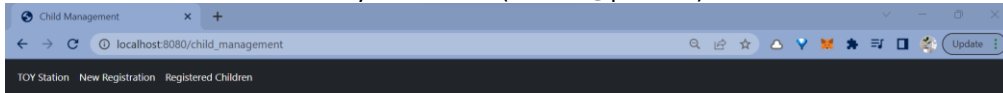
Registered Senior Citizens

First Name	Last Name	Age	Email	Contact	Safety Rank
Albert	Allen	61	albertallen@gmail.com	1234567890	1
Gene	Kelly	65	genek@gmail.com	1099098809	1
Joanna	Rose	63	jrose11@gmail.com	760007779	1
Chris	Nicolson	66	nicolson@yahoo.com	7773334343	1
Jason	Alexander	72	jasonalexander@gmail.com	2345234523	2
John	Wick	70	johnwick@gmail.com	1234567777	2
Nick	James	72	jnick@gmail.com	767777779	2
Henry	Oak	70	henry46@gmail.com	7787783838	2
Kelly	Lauren	80	kelly11@gmail.com	7878789999	3
Mathew	Lewis	77	mathew70@outlook.com	1098989995	3
Jacob	Hall	78	hall48@gmail.com	4475568998	5
Tina	Lousie	65	tinal@gmail.com	6663737373	6
alicia	Jones	65	alicia11@gmail.com	7465787993	6
Joe	Louis	80	joel@yahoo.com	7888899789	9

- **Child component:**

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)



- Allows a parent to register a child.

The screenshot shows the 'Child Registration' form. It contains several input fields: First Name, Last Name, Child Age, Parent Contact, and Parent Email. A blue 'Register Child' button is located at the bottom of the form.

- Shows the list of Registered children.

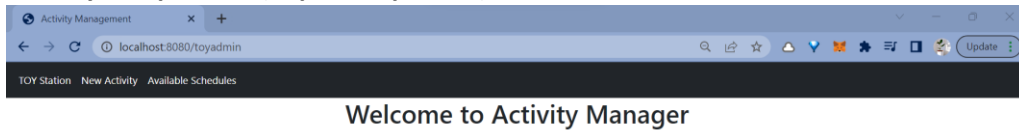
The screenshot shows the 'Registered children' list. The list is displayed as a table with the following columns: First Name, Last Name, Age, Email, and Contact. The data is as follows:

First Name	Last Name	Age	Email	Contact
Bill	Dana	6	dana77@gmail.com	809809888
Bethy	Dana	7	dana78@gmail.com	8878878787
Diana	Ross	7	rossD@gmail.com	7657654444
John	Ray	9	ray665@gmail.com	7654887652
Pete	Rose	5	rose28@yahoo.com	4567775678
Baby	Kelly	7	kelly676@outlook.com	1198898989
Kate	Wilson	5	wilson467@outlook.com	3363367777
Haider	Ali	7	ali337@gmail.com	8898898989
Ben	Jones	7	jones6@outlook.com	7797786464
Baby	Andrew	7	andrew998@yahoo.com	1176672727

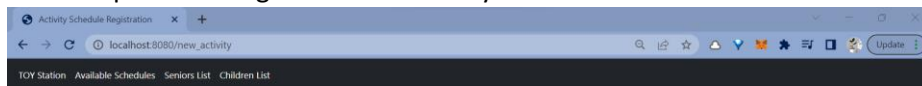
CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)

- **Activity component: (Supercomponent)**



- Allows a parent to register a new activity schedule.



Activity Schedule Registration

Select the Child

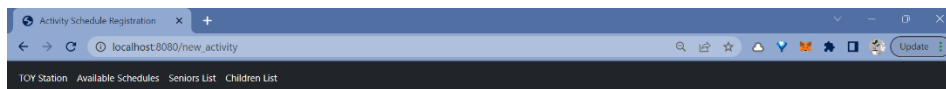
Select the Senior Citizen

Schedule Date

Activity Name

Special Note

- Senior can be selected from the list.



Activity Schedule Registration

Select the Child

Select the Senior Citizen

Schedule Date

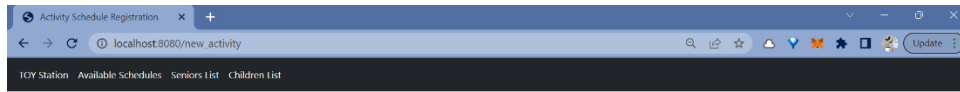
Activity Name

Special Note

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)

- Activity can be picked from the list



- Once the details are selected, schedule can be confirmed.



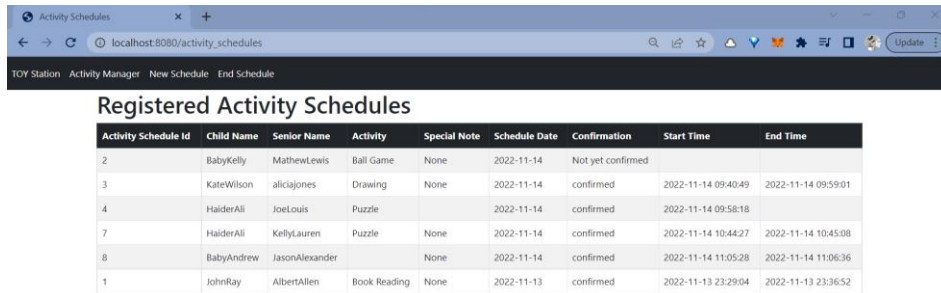
- Shows the list of Registered activity schedules.

Activity Schedule Id	Child Name	Senior Name	Activity	Special Note	Schedule Date	Confirmation
2	BabyKelly	MathewLewis	Ball Game	None	2022-11-14	click to confirm
3	KateWilson	aliciajones	Drawing	None	2022-11-14	confirmed
4	HaiderAli	Joelouis	Puzzle	None	2022-11-14	confirmed
7	HaiderAli	KellyLauren	Puzzle	None	2022-11-14	confirmed
8	BabyAndrew	JasonAlexander		None	2022-11-14	confirmed
1	JohnRay	AlbertAllen	Book Reading	None	2022-11-13	confirmed

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)

- Confirmation begins the schedule and start time is recorded.



Activity Schedule Id	Child Name	Senior Name	Activity	Special Note	Schedule Date	Confirmation	Start Time	End Time
2	BabyKelly	MathewLewis	Ball Game	None	2022-11-14	Not yet confirmed		
3	KateWilson	alicijones	Drawing	None	2022-11-14	confirmed	2022-11-14 09:40:49	2022-11-14 09:59:01
4	HaiderAli	Joelouis	Puzzle		2022-11-14	confirmed	2022-11-14 09:58:18	
7	HaiderAli	KellyLauren	Puzzle	None	2022-11-14	confirmed	2022-11-14 10:44:27	2022-11-14 10:45:08
8	BabyAndrew	JasonAlexander		None	2022-11-14	confirmed	2022-11-14 11:05:28	2022-11-14 11:06:36
1	JohnRay	AlbertAllen	Book Reading	None	2022-11-13	confirmed	2022-11-13 23:29:04	2022-11-13 23:36:52

- Parent returns to claim the kid, schedule can be ended using the End schedule option.



Registration and Login System

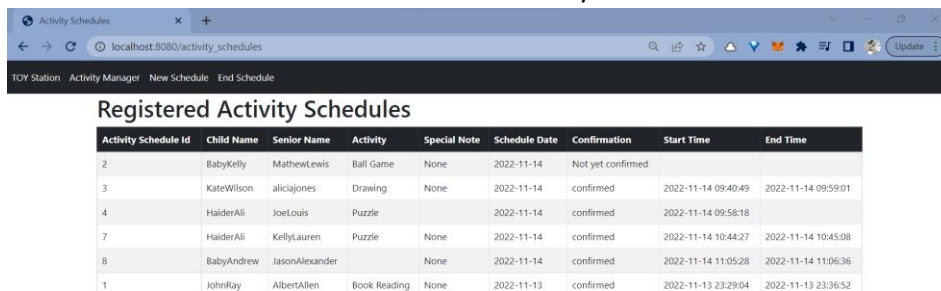
localhost:8080/end_schedule

TOY Station Activity Manager New Schedule All Activities

Scheduled Activity

Activity Schedule id:

- End schedule records the end time of the activity schedule.



Activity Schedule Id	Child Name	Senior Name	Activity	Special Note	Schedule Date	Confirmation	Start Time	End Time
2	BabyKelly	MathewLewis	Ball Game	None	2022-11-14	Not yet confirmed		
3	KateWilson	alicijones	Drawing	None	2022-11-14	confirmed	2022-11-14 09:40:49	2022-11-14 09:59:01
4	HaiderAli	Joelouis	Puzzle		2022-11-14	confirmed	2022-11-14 09:58:18	
7	HaiderAli	KellyLauren	Puzzle	None	2022-11-14	confirmed	2022-11-14 10:44:27	2022-11-14 10:45:08
8	BabyAndrew	JasonAlexander		None	2022-11-14	confirmed	2022-11-14 11:05:28	2022-11-14 11:06:36
1	JohnRay	AlbertAllen	Book Reading	None	2022-11-13	confirmed	2022-11-13 23:29:04	2022-11-13 23:36:52

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)

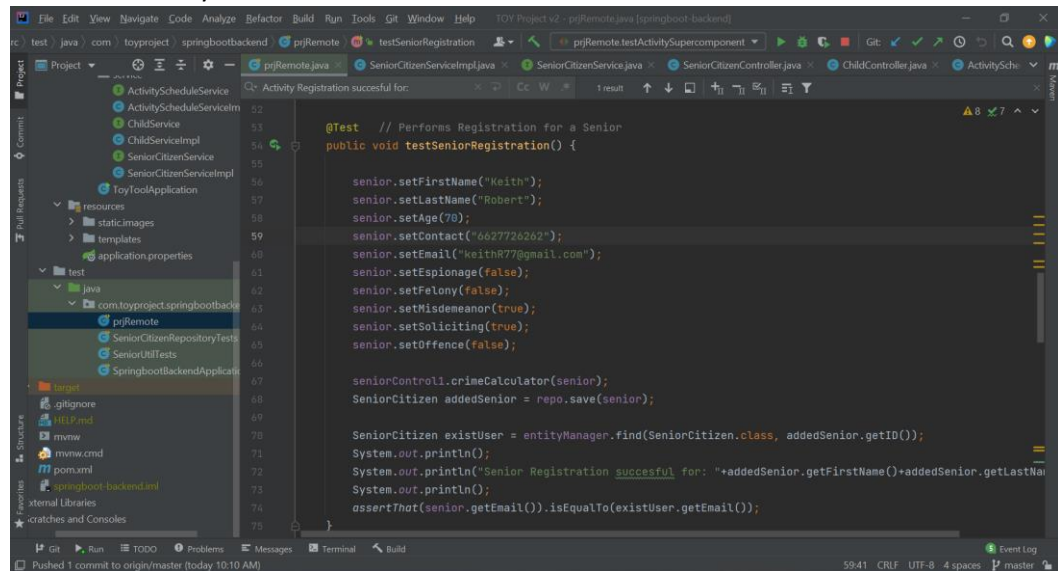
3. Supercomponent simulation using prjRemote:

The functionality of the Activity supercomponent can be simulated using the Tests in prjRemote.

The request is formed by ingesting data to the registration methods of the activity component and an activity schedule creation, confirmation and end can be simulated.

- Performs Senior citizen Registration:

Passes necessary information to create senior citizen record

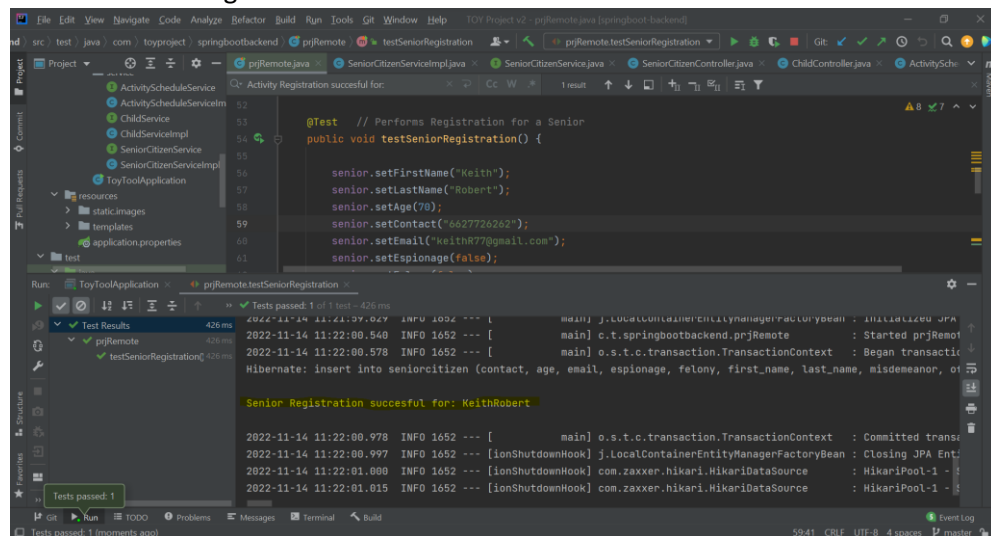


```
Activity Registration successful for:
@Dsl("prjRemote")
@Test // Performs Registration for a Senior
public void testSeniorRegistration() {
    senior.setFirstName("Keith");
    senior.setLastName("Robert");
    senior.setAge(70);
    senior.setContact("6627726262");
    senior.setEmail("keithr77@gmail.com");
    senior.setEspionage(false);
    senior.setFelony(false);
    senior.setMisdemeanor(true);
    senior.setSoliciting(true);
    senior.setOffence(false);

    seniorController.primeCalculator(senior);
    SeniorCitizen addedSenior = repo.save(senior);

    SeniorCitizen existUser = entityManager.find(SeniorCitizen.class, addedSenior.getID());
    System.out.println();
    System.out.println("Senior Registration successful for: "+addedSenior.getFirstName()+addedSenior.getLastName());
    System.out.println();
    System.out.println();
    assertEquals(senior.getEmail(), existUser.getEmail());
}
```

Console shows Registration is successful:



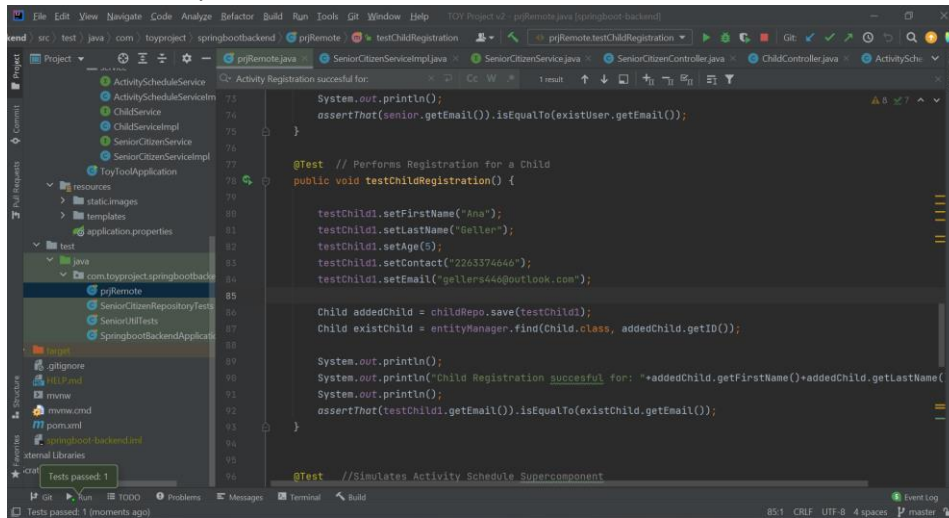
```
Run: ToyToolApplication
Tests passed: 1 of 1 tests - 426 ms
Test Results 426 ms
prjRemote 426 ms
testSeniorRegistration() 426 ms
2022-11-14 11:22:00.067 INFO 1652 --- [main] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'prjRemote'
2022-11-14 11:22:00.840 INFO 1652 --- [main] o.s.t.c.transaction.TransactionContext : Began transaction
Hibernate: insert into seniorcitizen (contact, age, email, espionage, felony, first_name, last_name, misdemeanor, offence) values (6627726262, 70, keithr77@gmail.com, false, false, Keith, Robert, true, false)
Senior Registration successful for: KeithRobert
2022-11-14 11:22:00.978 INFO 1652 --- [main] o.s.t.c.transaction.TransactionContext : Committed transaction
2022-11-14 11:22:00.997 INFO 1652 --- [ionShutdownHook] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit 'prjRemote'
2022-11-14 11:22:01.080 INFO 1652 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Starting shutdown
2022-11-14 11:22:01.015 INFO 1652 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown completed
Tests passed: 1 (moments ago)
```

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)

- Performs Child Registration:

Passes necessary information to create Child Record

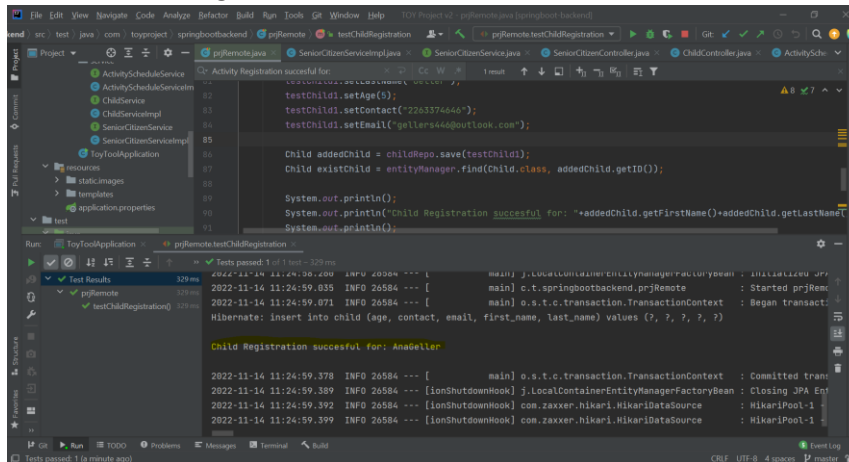


```
Activity Registration successful for:
System.out.println();
assertThat(senior.getEmail()).isEqualTo(existUser.getEmail());
}
}
@Test // Performs Registration for a Child
public void testChildRegistration() {
    testChild.setFirstName("Ana");
    testChild.setLastName("Geller");
    testChild.setAge(5);
    testChild.setContact("2263376446");
    testChild.setEmail("gellers44@outlook.com");

    Child addedChild = childRepo.save(testChild);
    Child existChild = entityManager.find(Child.class, addedChild.getID());

    System.out.println("Child Registration successful for: "+addedChild.getFirstName()+addedChild.getLastName());
    System.out.println();
    assertThat(testChild.getEmail()).isEqualTo(existChild.getEmail());
}
@Test //Simulates Activity Schedule Supercomponent
```

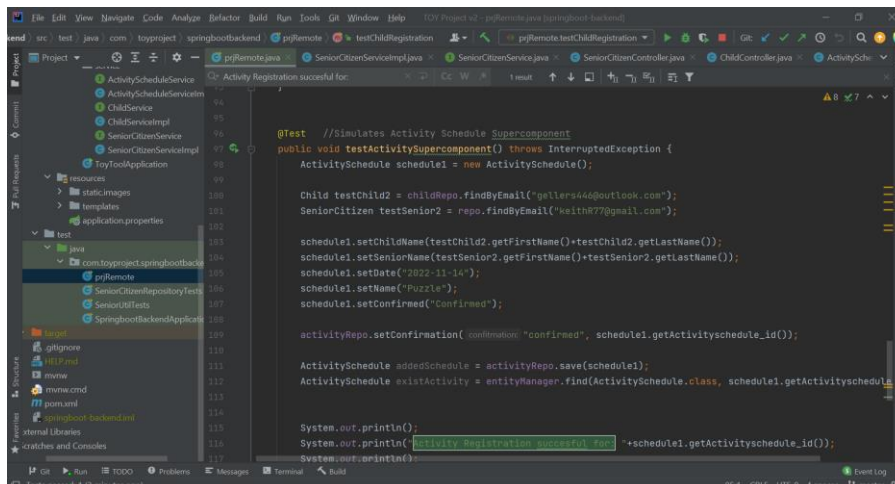
Console shows registration is successful:



```
Child Registration successful for: AnaGeller
2022-11-14 11:24:59.399 INFO 26584 --- [main] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'default'
2022-11-14 11:24:59.435 INFO 26584 --- [main] c.t.springbootbackend.prjRemote : Started prjRemoteApplication
2022-11-14 11:24:59.471 INFO 26584 --- [main] o.s.t.c.transaction.TransactionContext : Began transaction
Hibernate: insert into child (age, contact, email, first_name, last_name) values (?, ?, ?, ?, ?)
2022-11-14 11:24:59.378 INFO 26584 --- [main] o.s.t.c.transaction.TransactionContext : Committed transaction
2022-11-14 11:24:59.389 INFO 26584 --- [main] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit 'default'
2022-11-14 11:24:59.392 INFO 26584 --- [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown initiated...
2022-11-14 11:24:59.399 INFO 26584 --- [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown complete.
```

- Activity Schedule supercomponent for Activity Registration:

Creates a new activity schedule for senior and child, confirms the activity and records starttime and endtime.



```
@Test //Simulates Activity Schedule Supercomponent
public void testActivitySupercomponent() throws InterruptedException {
    ActivitySchedule schedule1 = new ActivitySchedule();

    Child testChild2 = childRepo.findByIdEmail("gellers44@outlook.com");
    SeniorCitizen testSenior2 = repo.findByIdEmail("keith77@gmail.com");

    schedule1.setChildName(testChild2.getFirstName()+testChild2.getLastName());
    schedule1.setSeniorName(testSenior2.getFirstName()+testSenior2.getLastName());
    schedule1.setDate("2022-11-14");
    schedule1.setName("Puzzle");
    schedule1.setConfirmed("Confirmed");

    activityRepo.setConfirmation("confirmed", schedule1.getActivitySchedule_id());

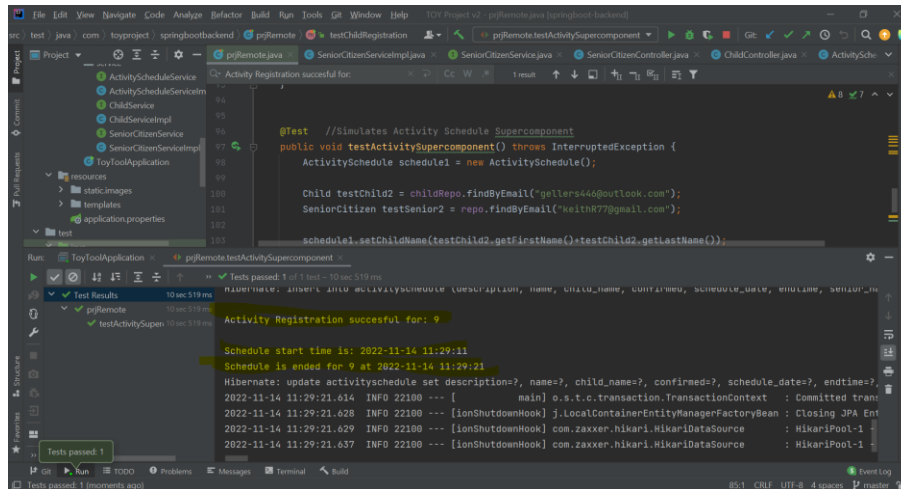
    ActivitySchedule addedSchedule = activityRepo.save(schedule1);
    ActivitySchedule existActivity = entityManager.find(ActivitySchedule.class, schedule1.getActivitySchedule_id());

    System.out.println("Activity Registration successful for: "+schedule1.getActivitySchedule_id());
    System.out.println();
}
```

CS2310 TOY Project Milestone 2

Kavya Sree Kilari (kak435@pitt.edu)

Console prints the Registration success message, Activity start time and End time:



```
Activity Registration successful for: 9

Schedule start time is: 2022-11-14 11:29:11
Schedule is ended for 9 at 2022-11-14 11:29:21

Hibernate: update activitieschedule set description=?, name=?, child_name=?, confirmed=?, schedule_date=?, endtime=?
2022-11-14 11:29:21.614 INFO 22100 --- [main] o.s.t.c.transaction.TransactionContext : Committed tran
2022-11-14 11:29:21.628 INFO 22100 --- [ionShutdownHook] j.LocalContainerEntityManagerFactoryBean : Closing JPA Ent
2022-11-14 11:29:21.629 INFO 22100 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1
2022-11-14 11:29:21.637 INFO 22100 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1
```