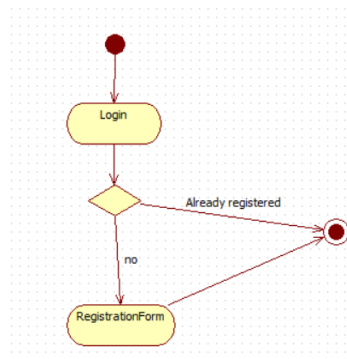
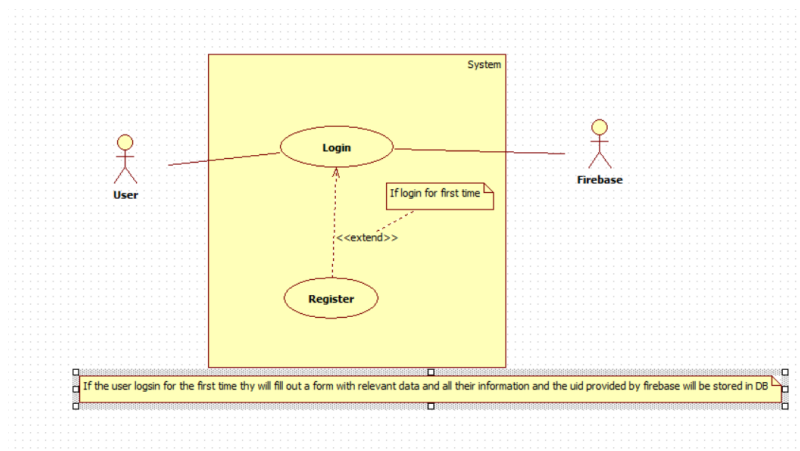


Social Fitness

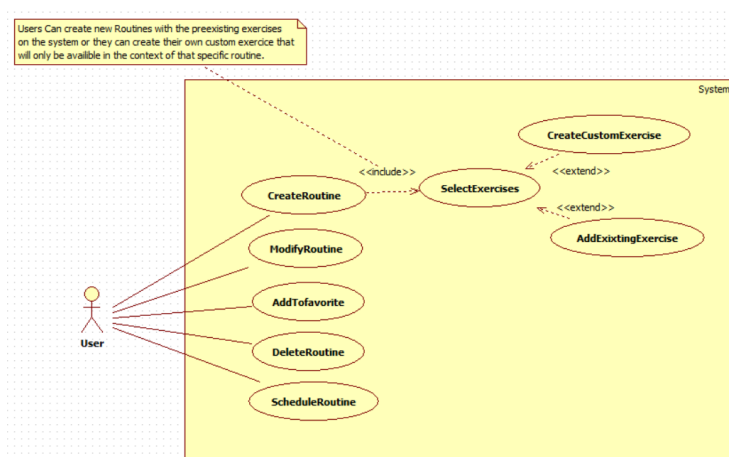
First iteration:

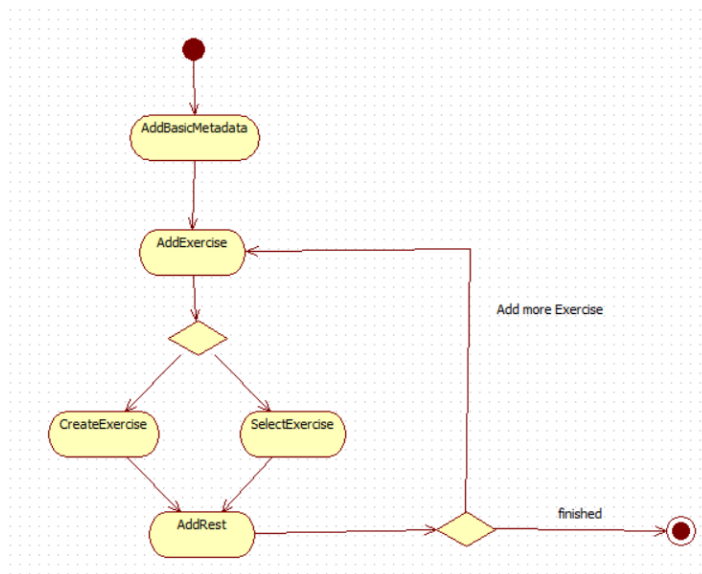
Features:

- Auth Feature:
 - Users must be able to login with their google account.
 - If it's their first time logging in they must register.

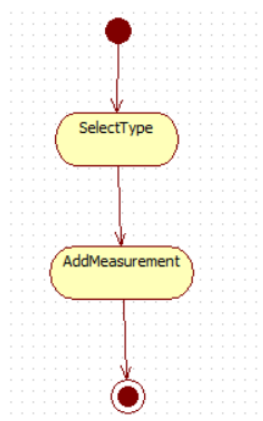
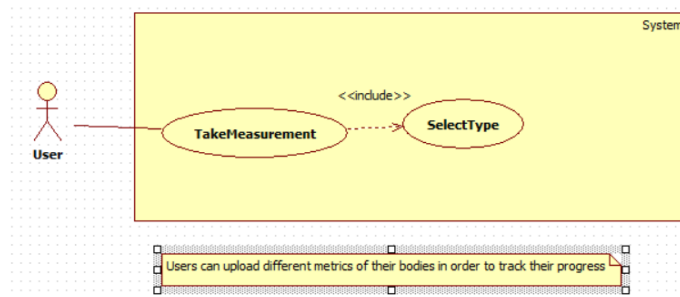


- Routine Management Feature:
 - Users must be able to create new routines based on preexisting exercises.
 - Users can modify the routines that they have created.



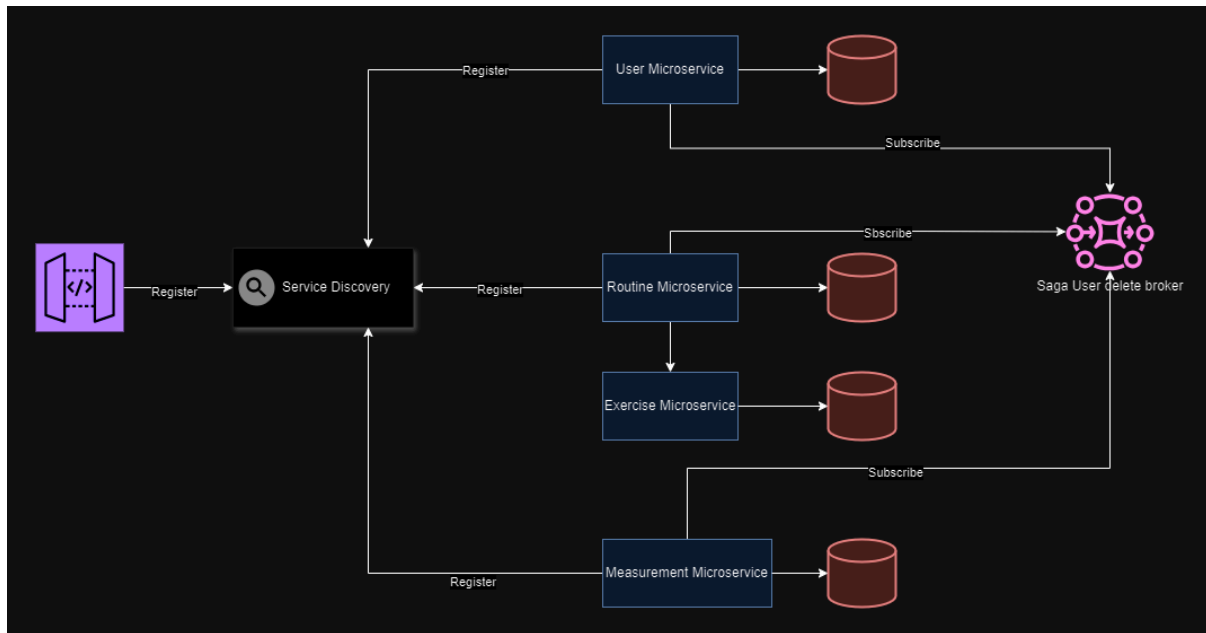


- Measurements Management Feature:
 - Users can add body metrics.



Components:

- Api Gateway
 - Receive all requests and direct them to the corresponding microservice
 - Authenticate Requests via Firebase
 - Support https
- Discovery Service
 - Locate all microservices
 - Loadbalance
- User Microservice
 - Create users
 - Delete users and create events form data deletion
- Routine Microservice
 - Create routine
 - Delete routine
 - Modify existing routines
 - Listen for user deletion events
- Measurements Microservice
 - Create measurements
 - Delete Measurements
 - Listen for user deletion events
- Exercise Microservice
 - Internal microservice
 - Only used to serve exercises for the routine service from db
- Rabbitmq
 - Used to send user deletion events and possible fail events for saga pattern



-All microservices will register to the discovery services
-Api gateway will send requests based on discovery service
-User, Routine and Measurement Microservices will subscribe to a message broker in order to delete all user data when required. Due to it being a distributed transaction that needs to update tables across multiple databases Saga pattern was introduced.

1. User will delete the user and send a routine deletion event
2. Routine will delete all users' routines. In case of success it will send a measurement delete event. In case of failure it will send a User Delete Rollback event.
3. Measurement will delete all users measurements. In case of failure it will send a Routine Delete Rollback event.