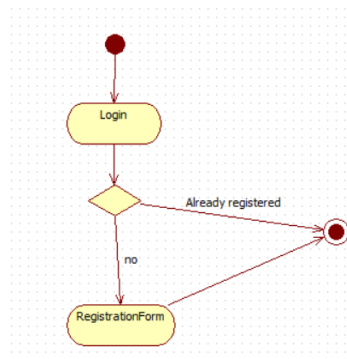
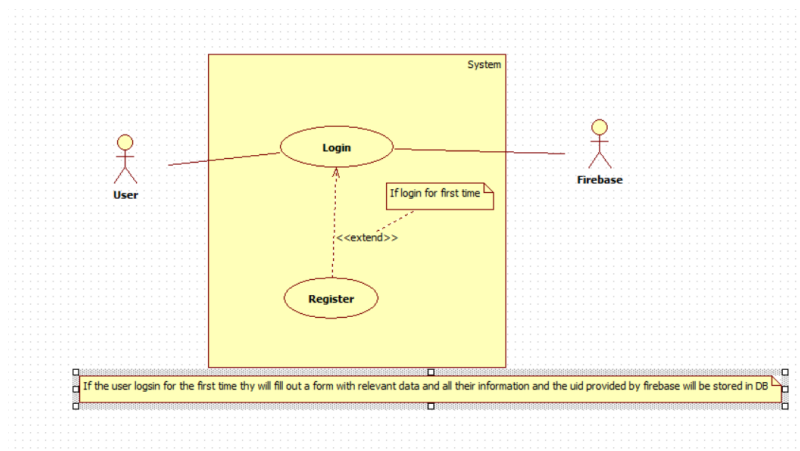


# Social Fitness

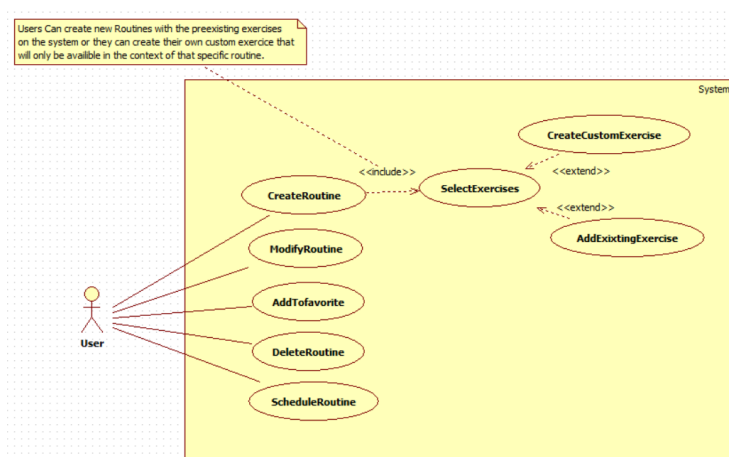
First iteration:

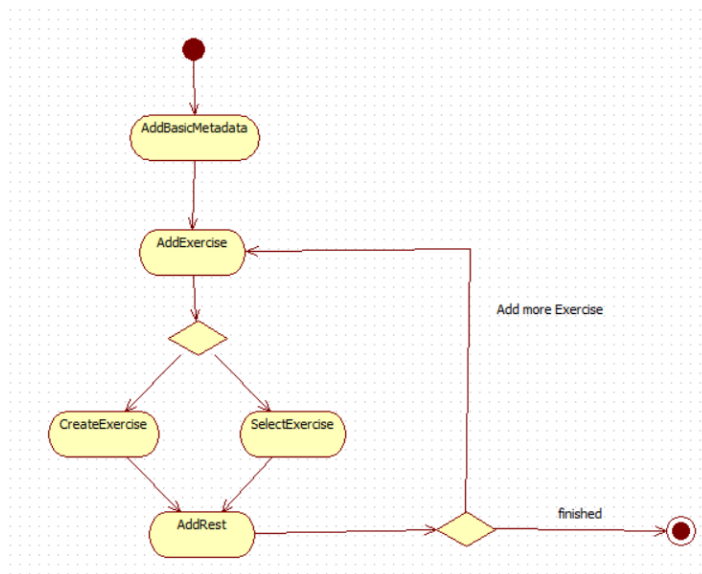
Features:

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

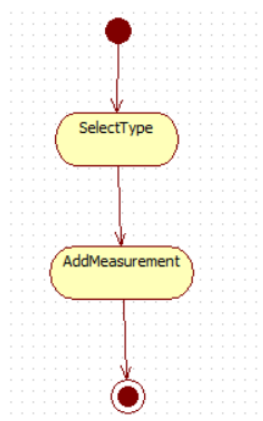
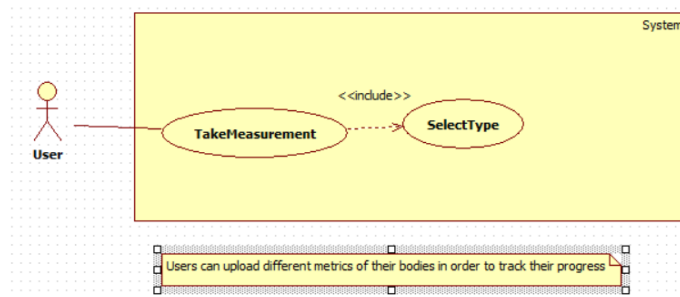


- Routine Management Feature:
  - Users must be able to create new routines based on preexisting exercises.
  - Users can modify the routines that they have created.



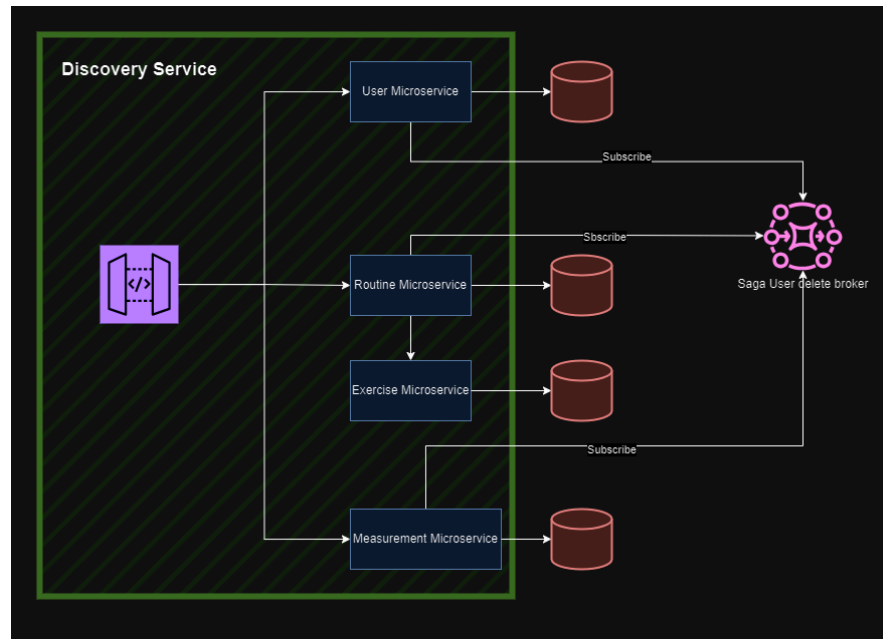


- Measurements Management Feature:  
-Users can add body metrics.



## 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.