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# Software Engineering II Project

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Data4Help

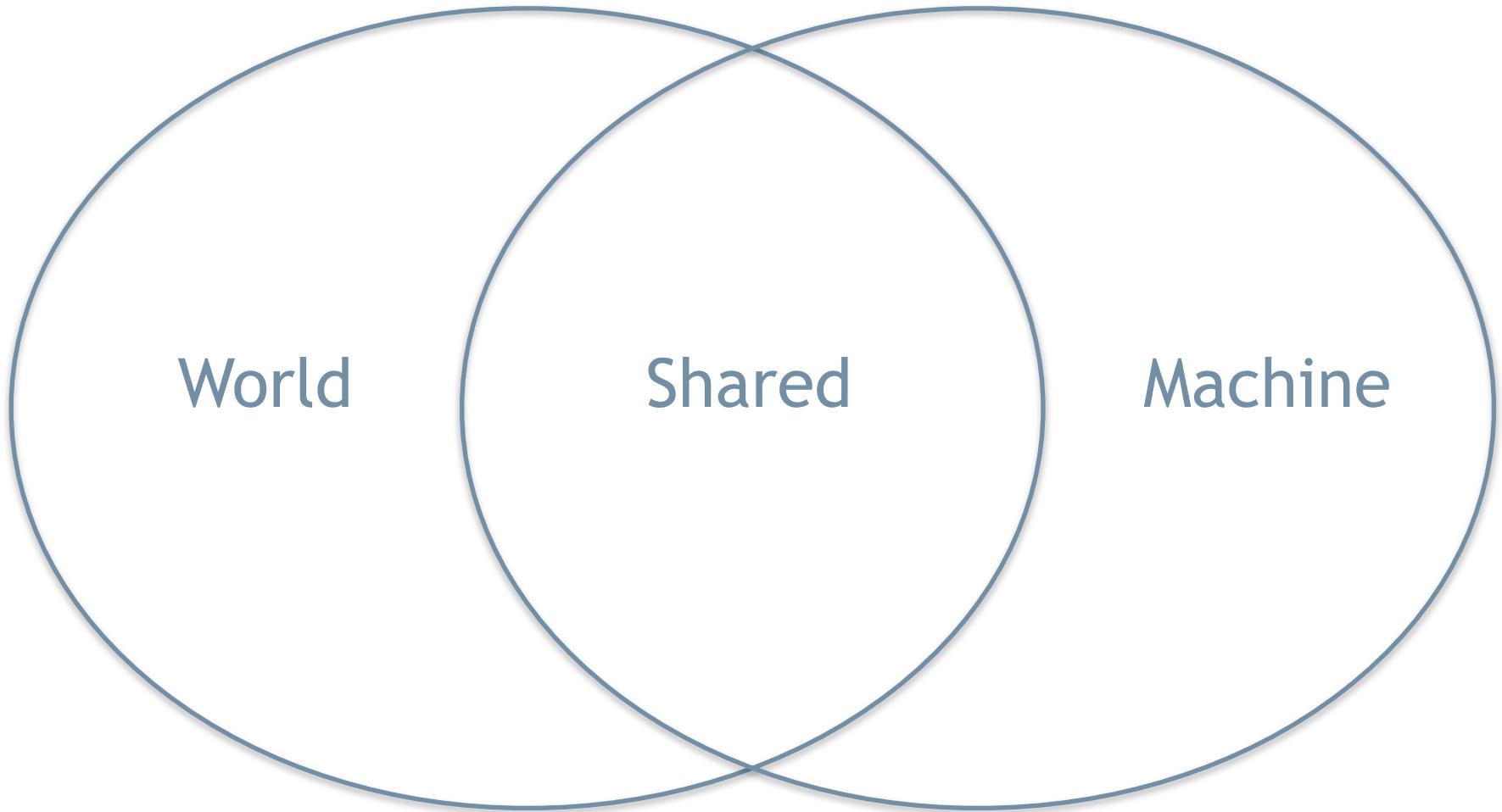


AutomatedSOS

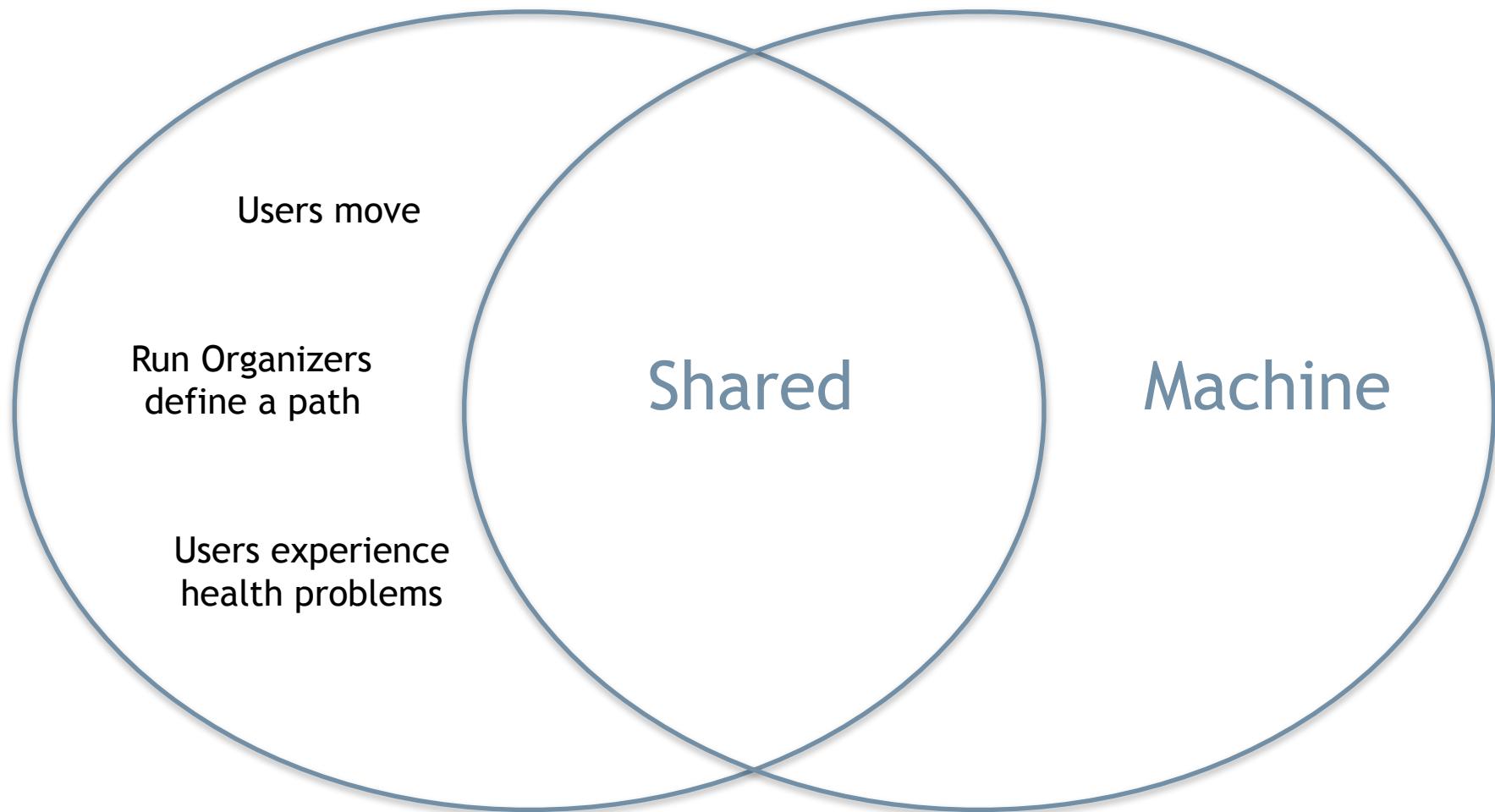


Track4Run

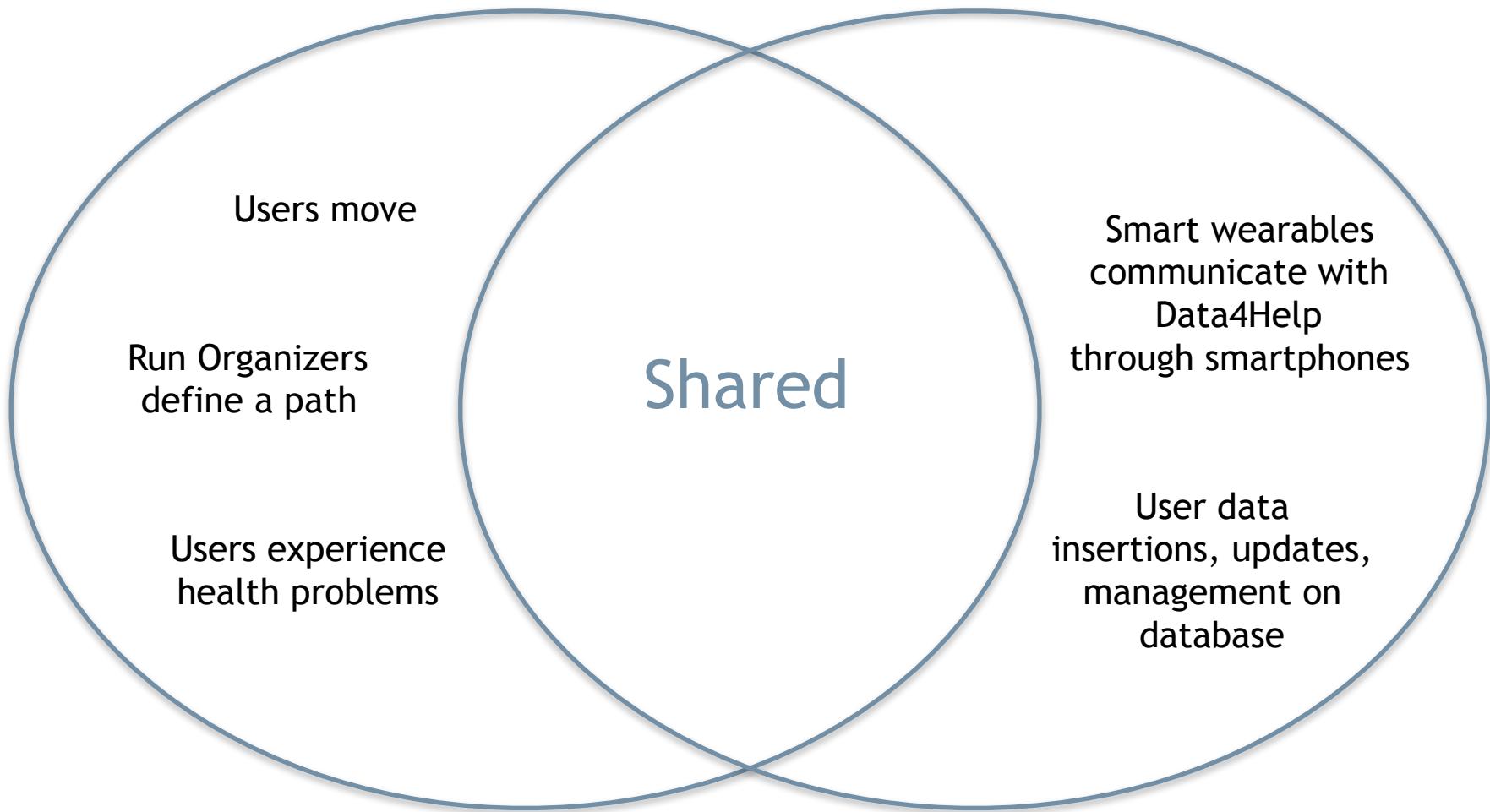
# World and Machine Phenomena



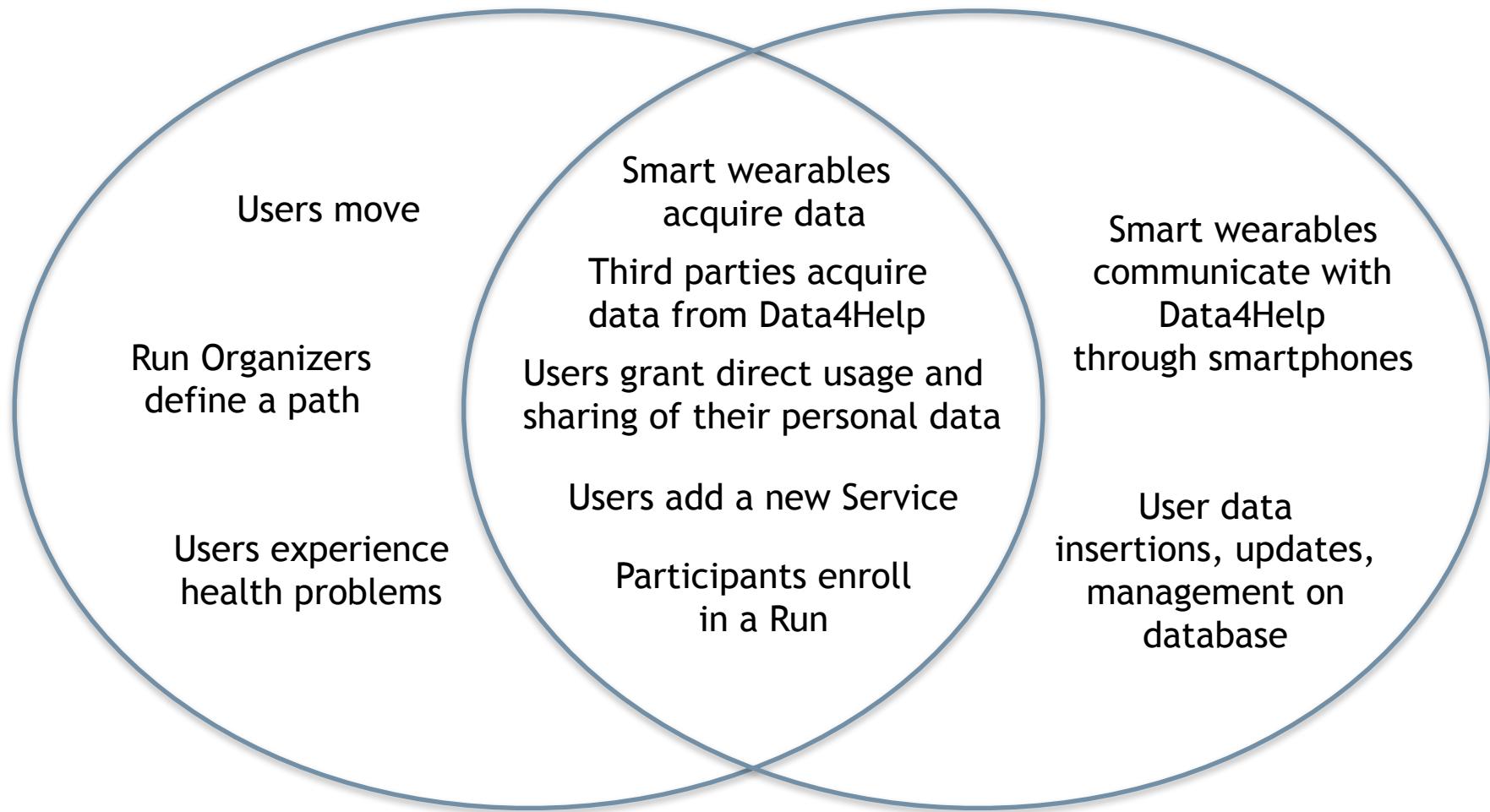
# World and Machine Phenomena



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# Data4Help Goals

- Collect User data through Smart Wearables.
- Send specific User data to Third parties only if User consent was given after Third party access request.
- Send anonymized requested Group Data to Third parties if the group it refers to is made up of 1000 or more Users.
- Send User data and Group Data to subscribed authorized Third parties as soon as they are produced.
- Allow Users to manage their subscription to Services and to Data4Help.

# AutomatedSOS Goals

- Analyse User data to check whether or not a User is a User in need.
- Send an ambulance to the last position of a User in need.

# Track4Run Goals

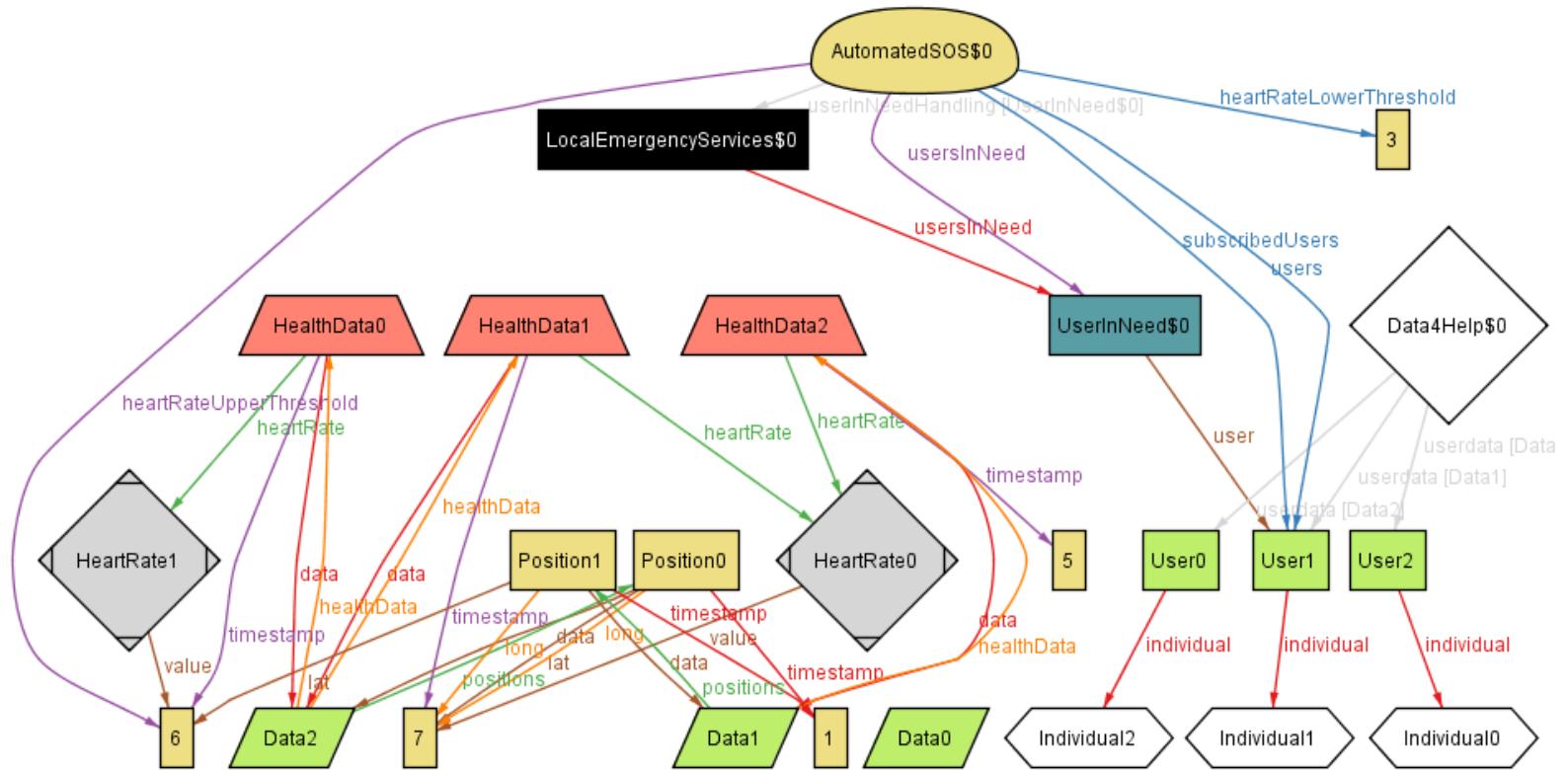
- Allow Organizers to create a Run.
- Allow Users to enroll in a Run as Participants.
- Allow Spectators to watch a Run.

# Main Requirements

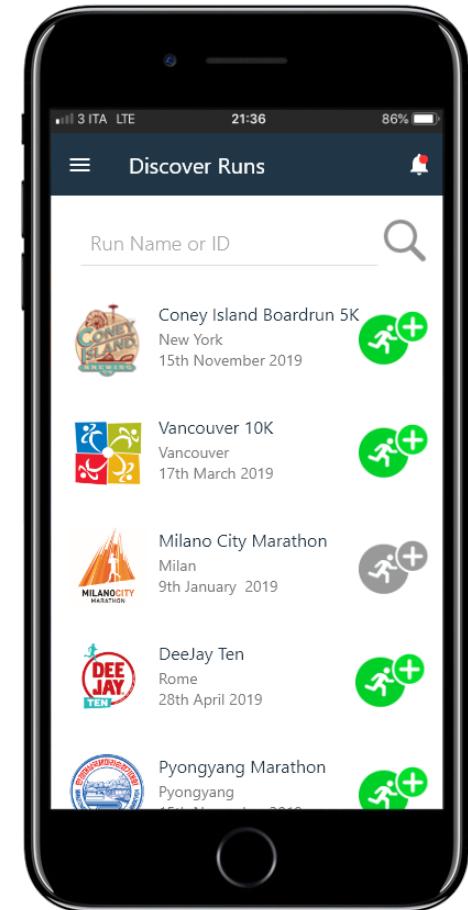
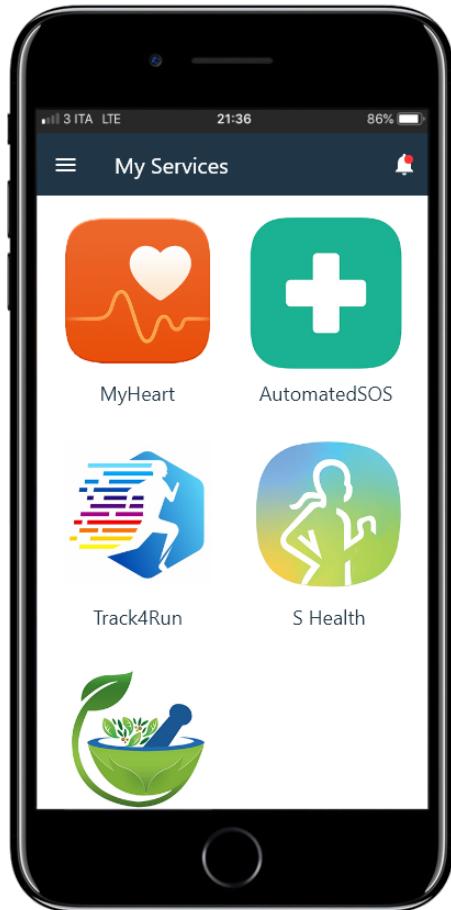
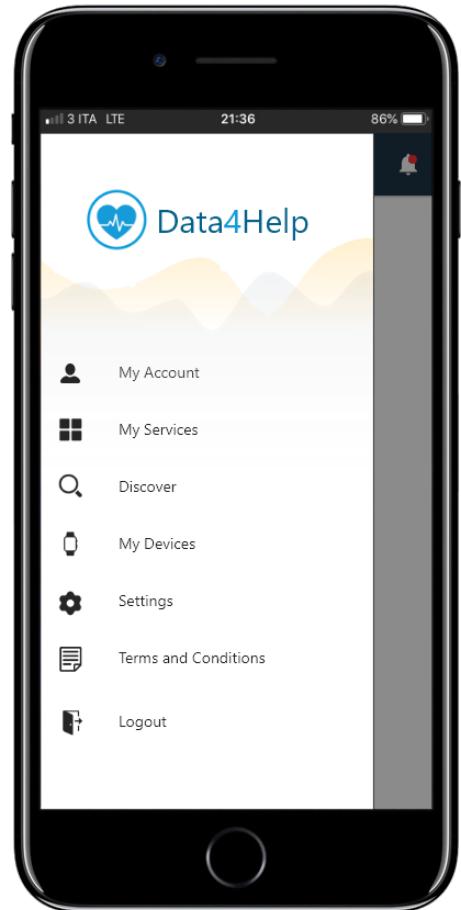
Ricordarsi di citare alcune domain assumptions

- Receive and store User data in Data4Help Database.
- Receive User consent approval or denial with respect to Third party data access requests.
- Send specific User data and Group data to the requesting Third party.
- Allow Users to add a Service.
- Call local emergency services providing necessary User data of User in need.
- Allow Organizers to create a Run, defining: name, path, date, maximum number of Participants and enrollment closure date.

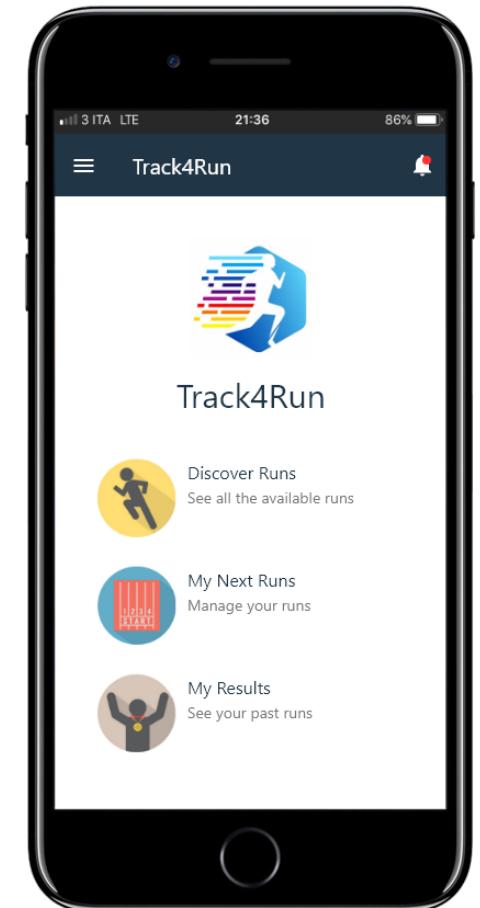
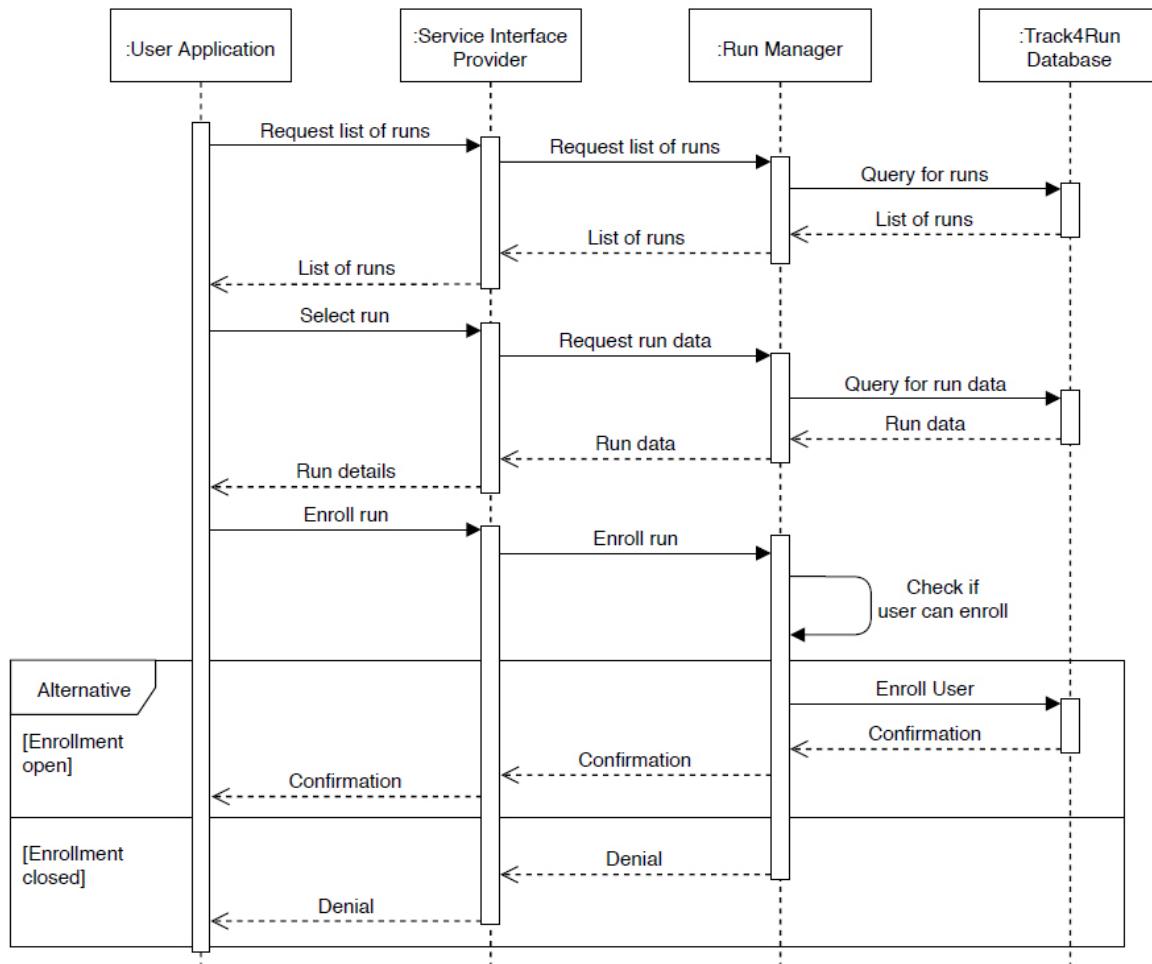
# Formal Modelling through Alloy



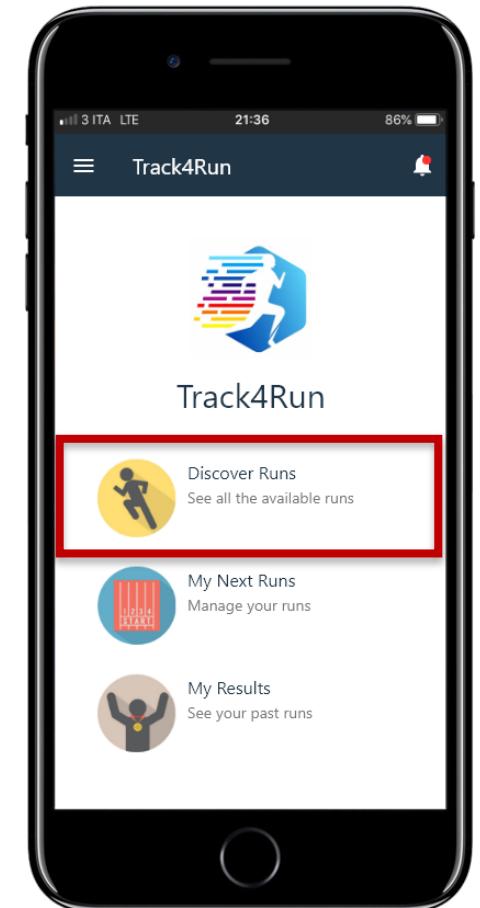
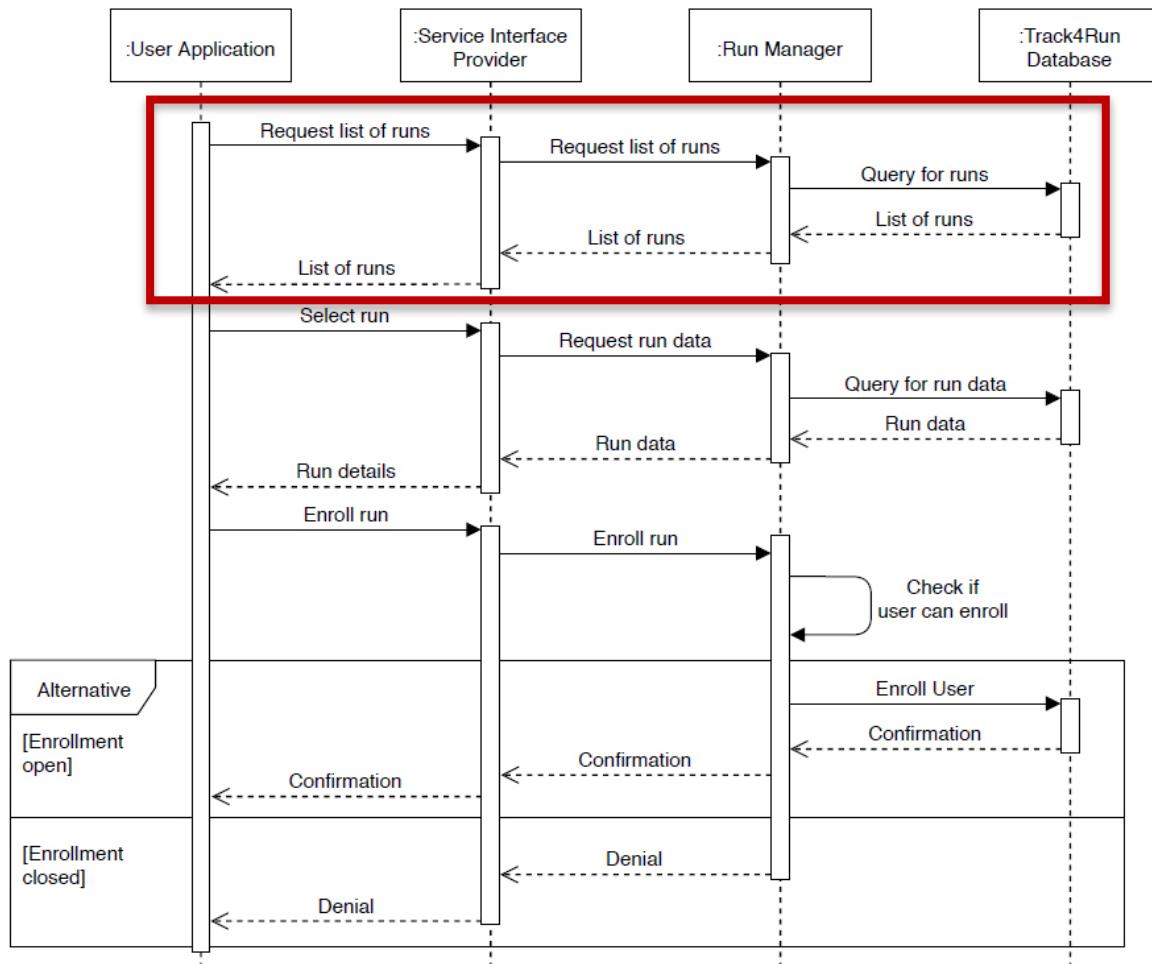
# A Meaningful Use Case



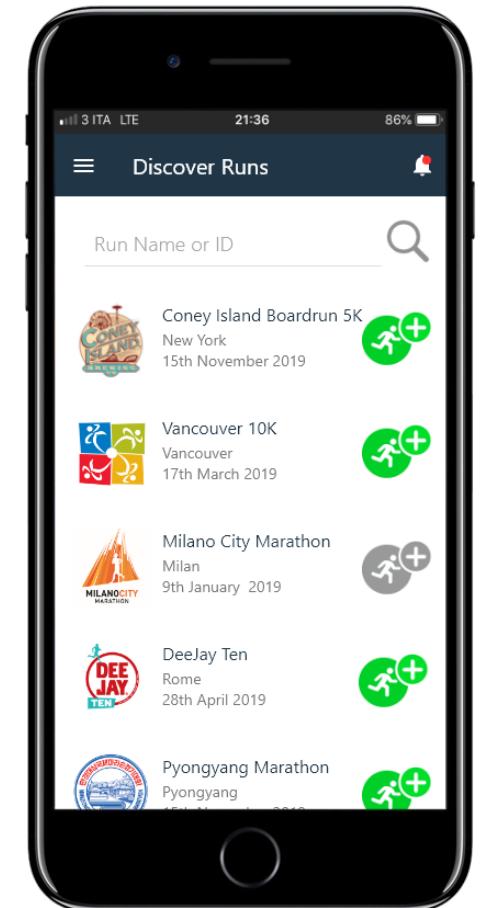
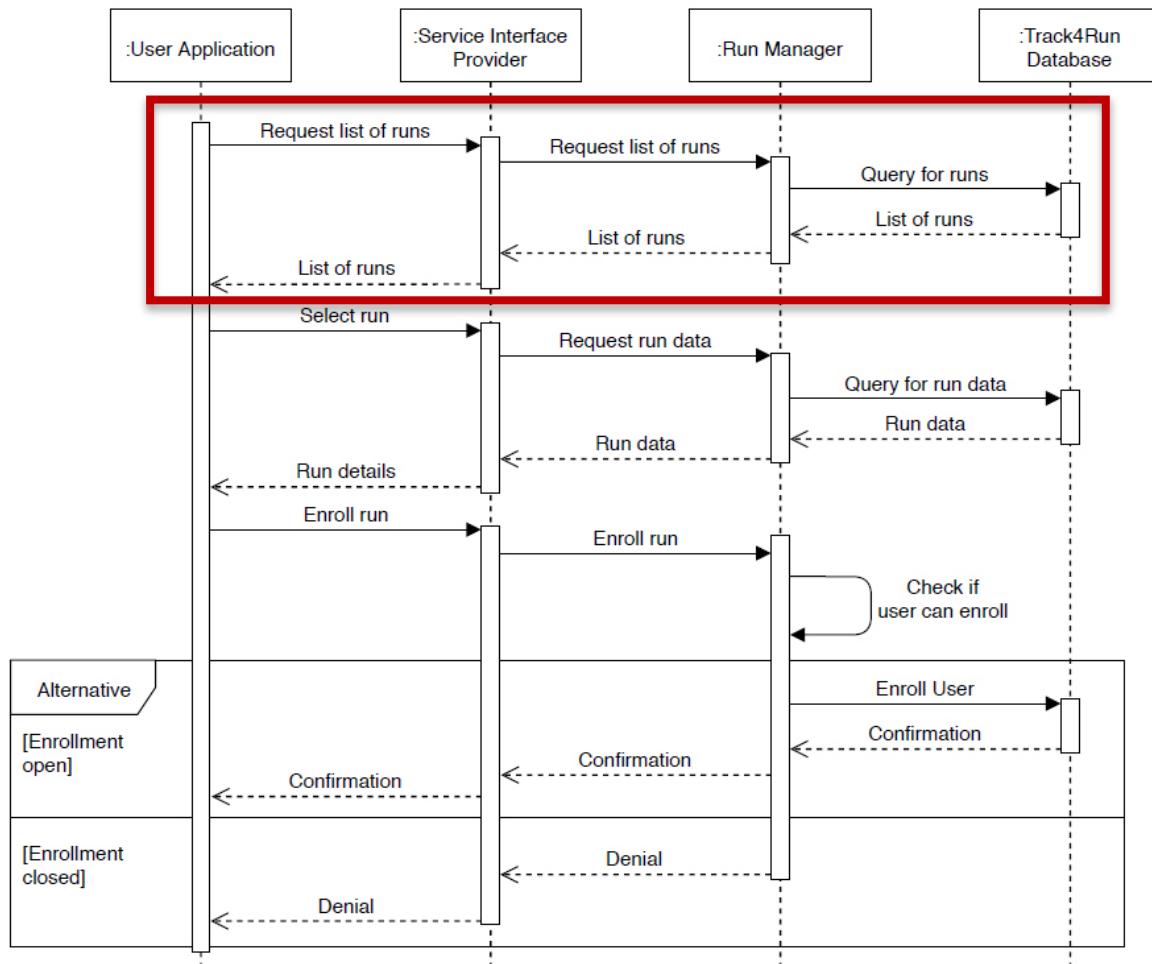
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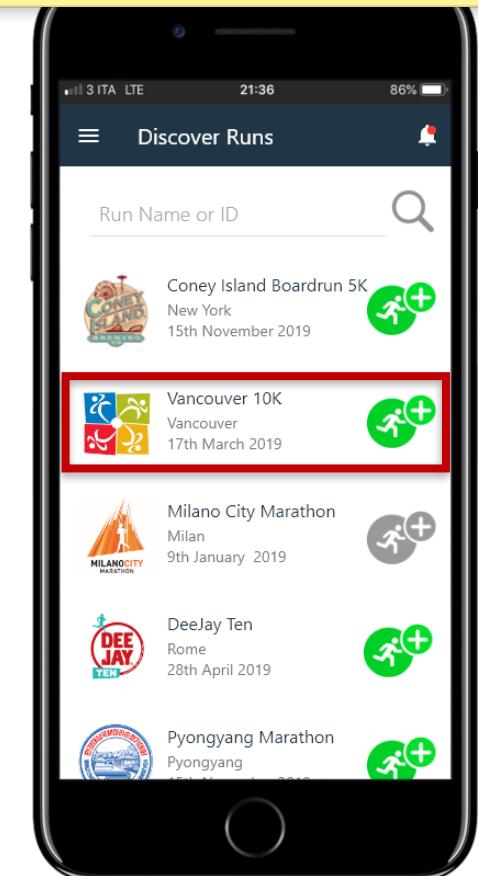
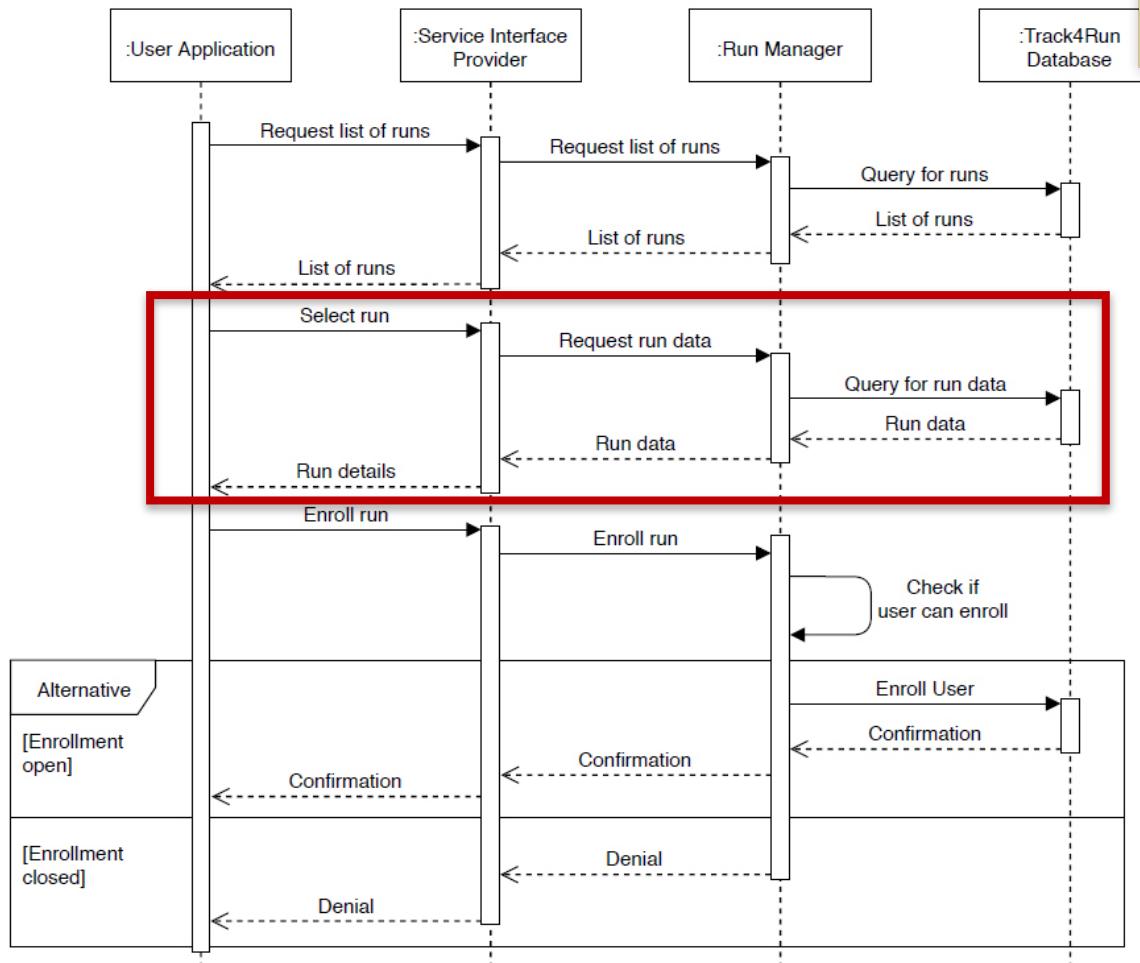


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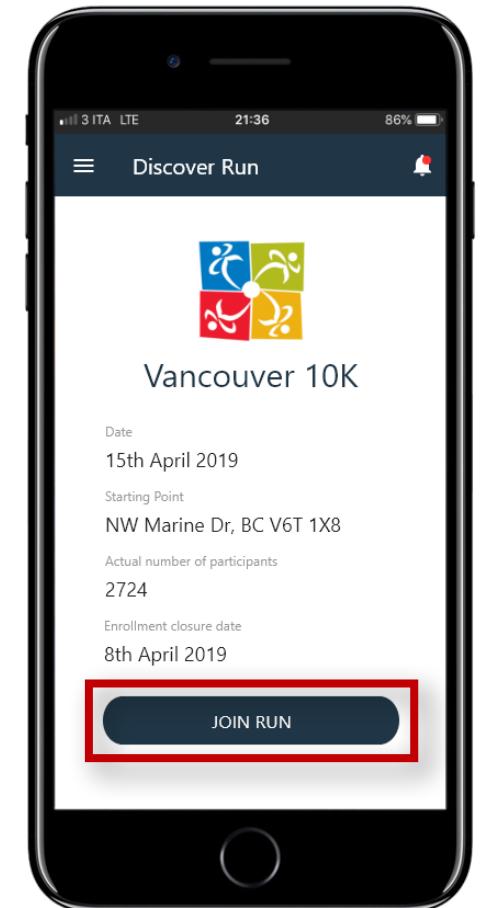
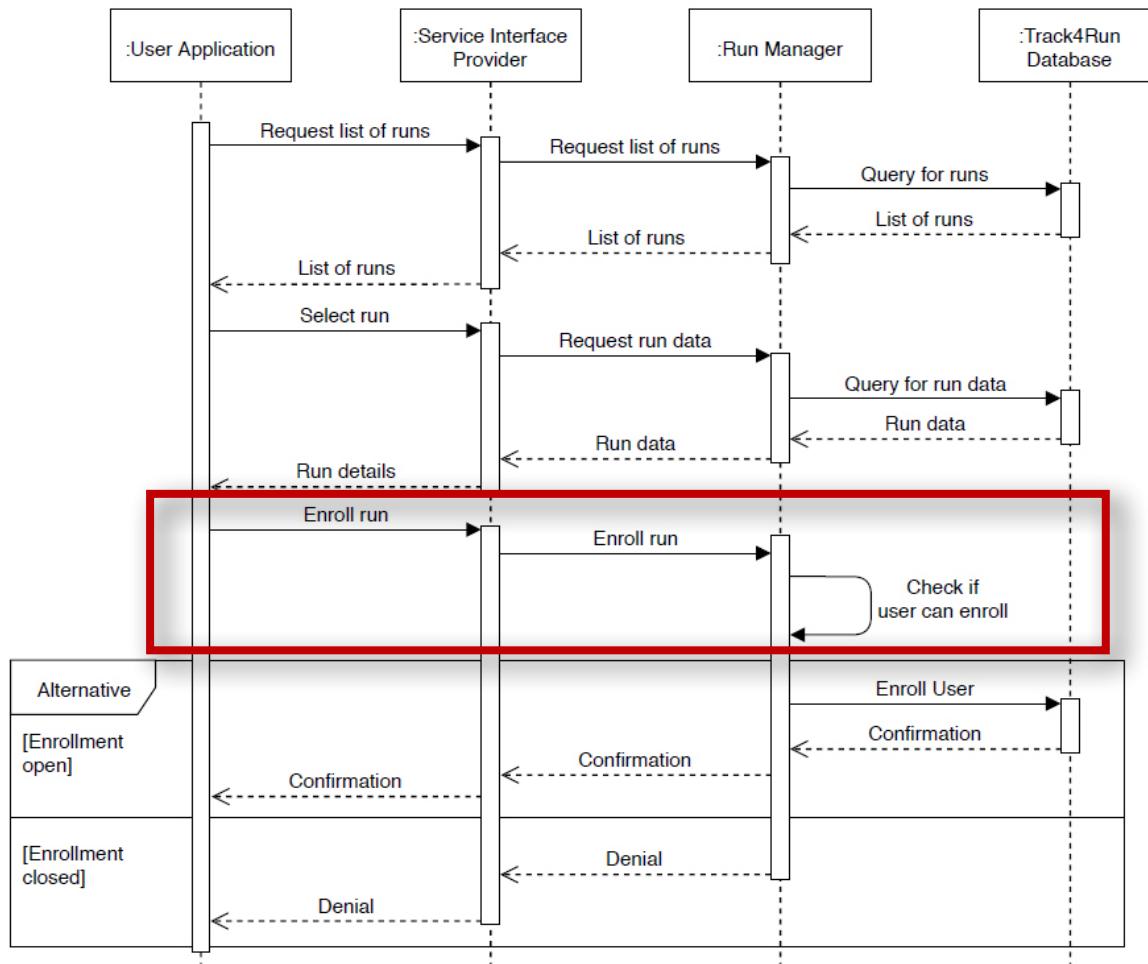


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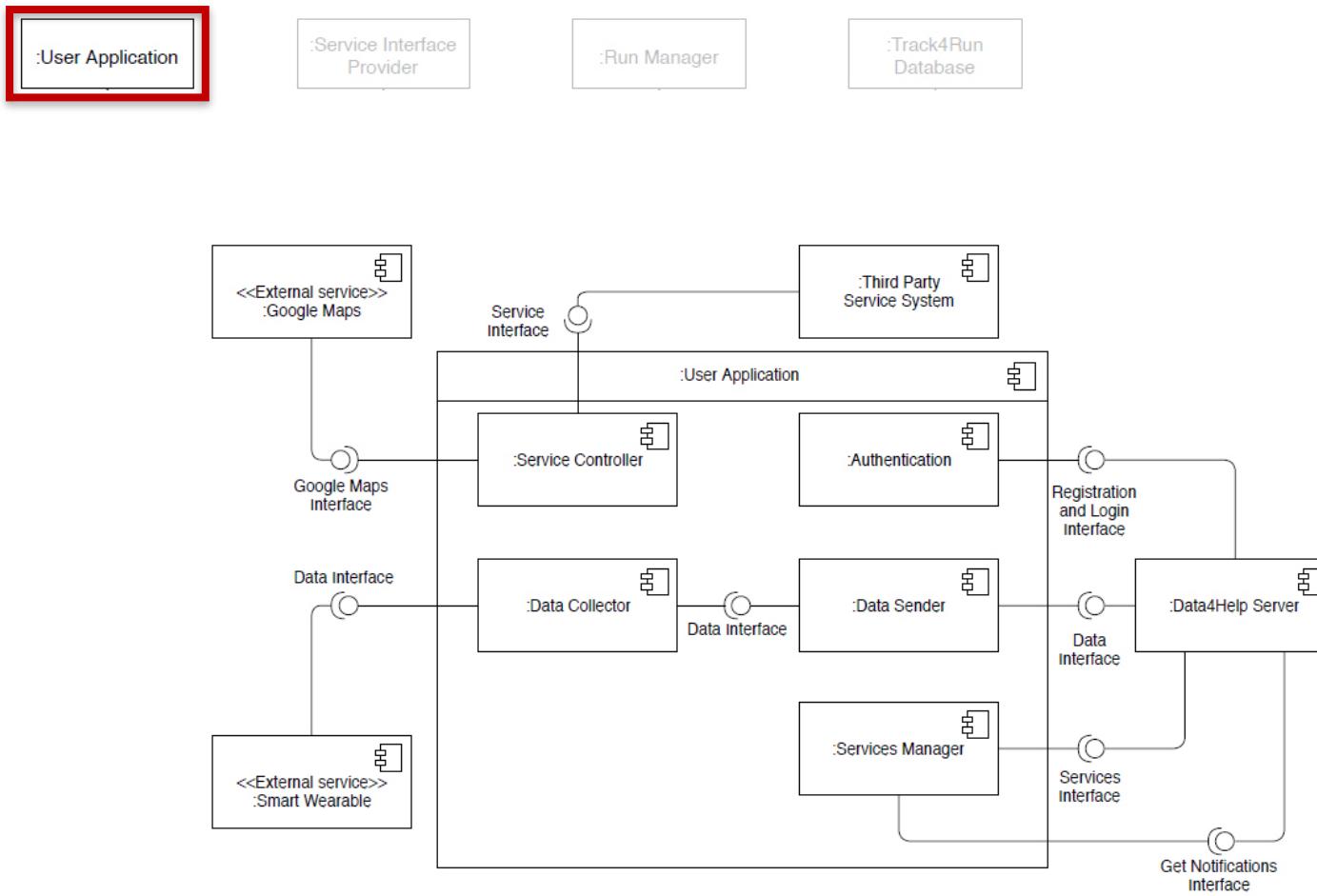
- tap su run e riceve dettagli, e si enolla eventualmente
- Il "uscita di emergenza" sulla dx indica se ti puoi iscrivere o meno



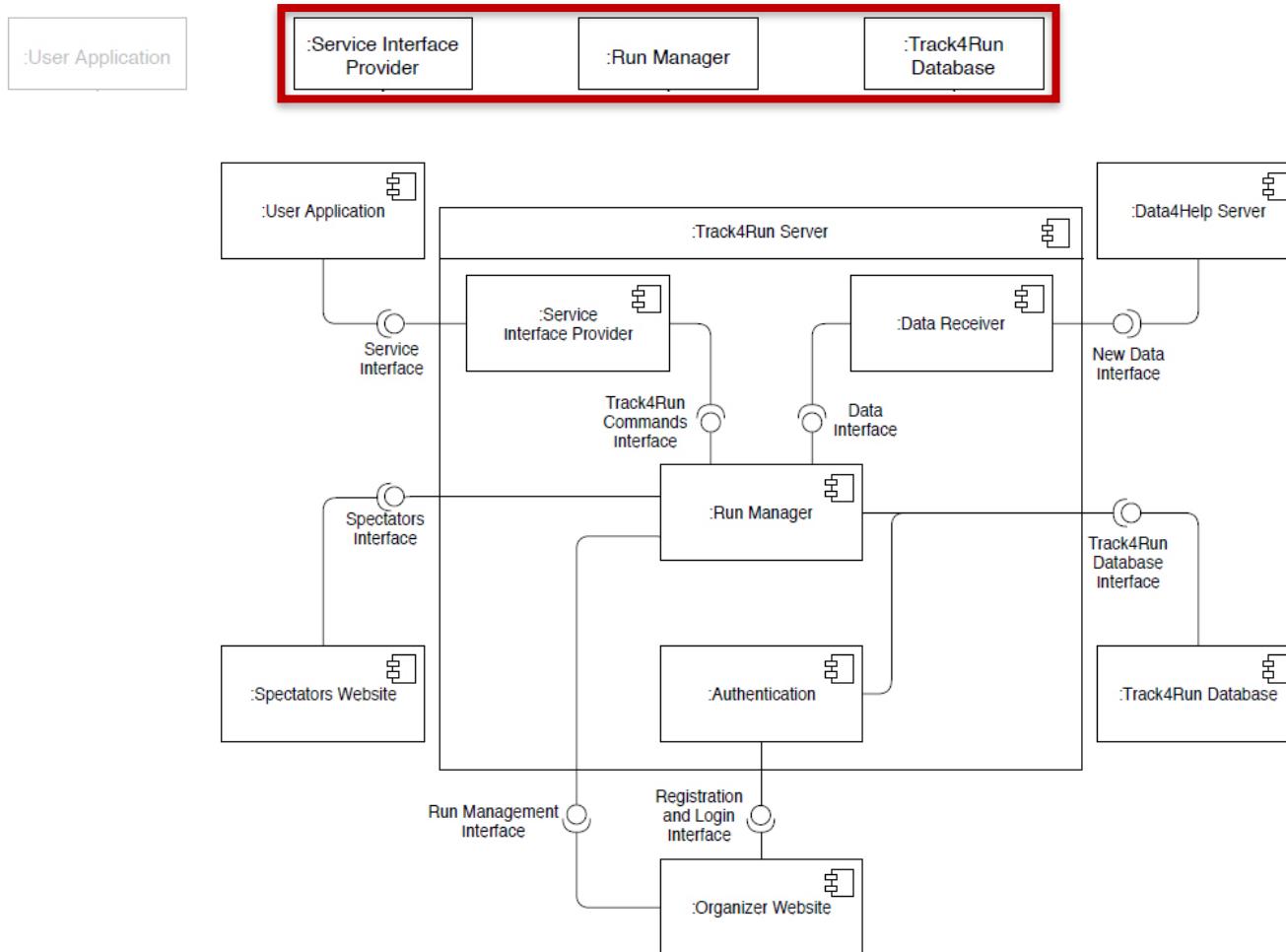
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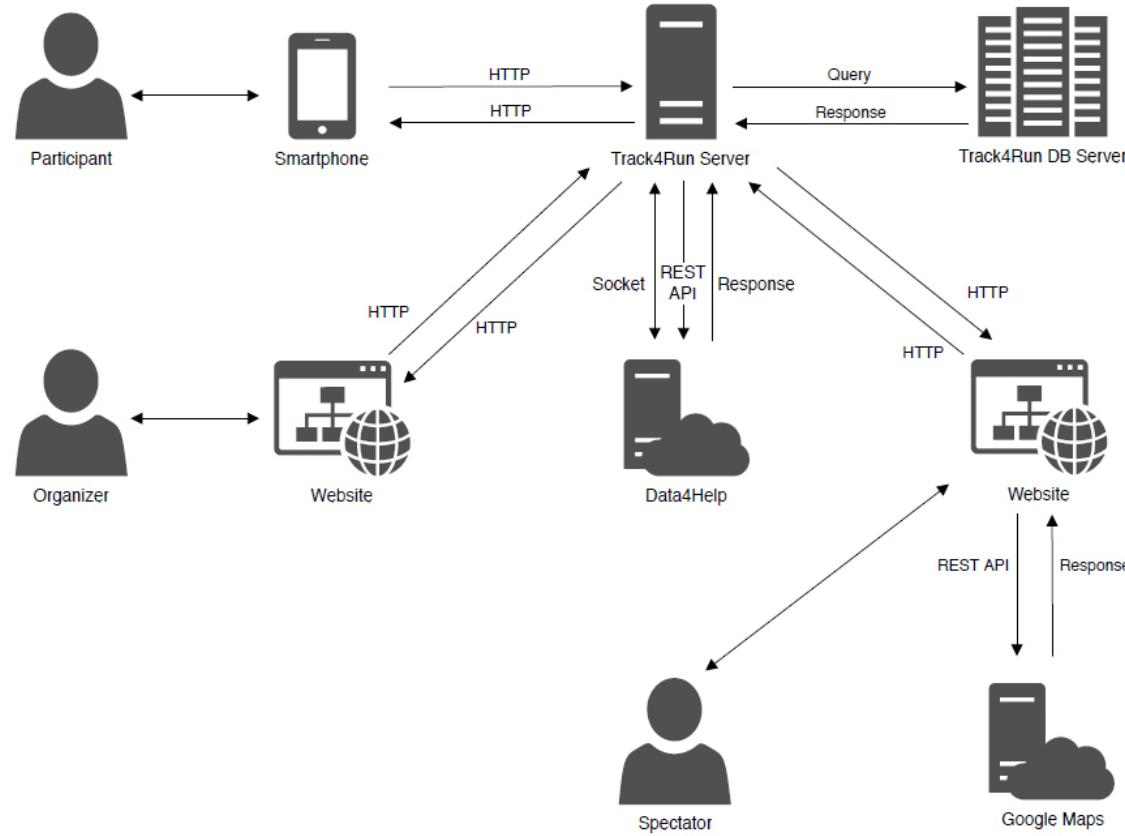
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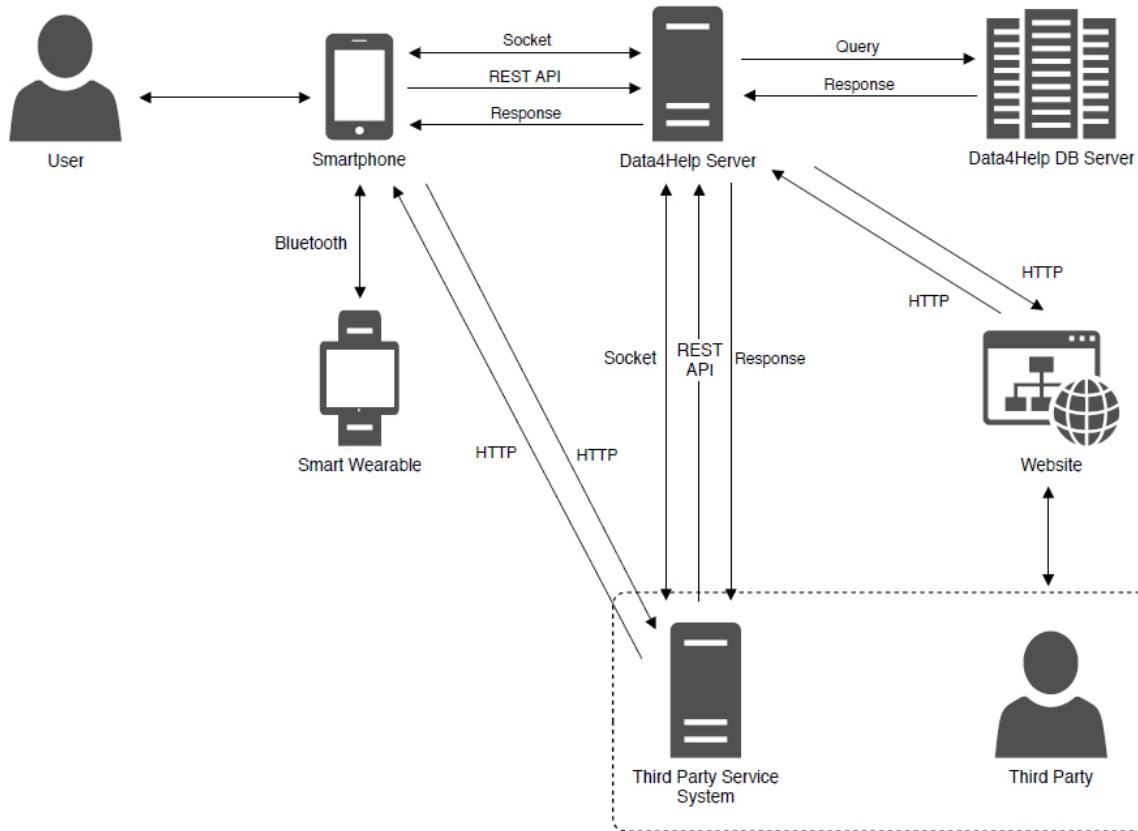
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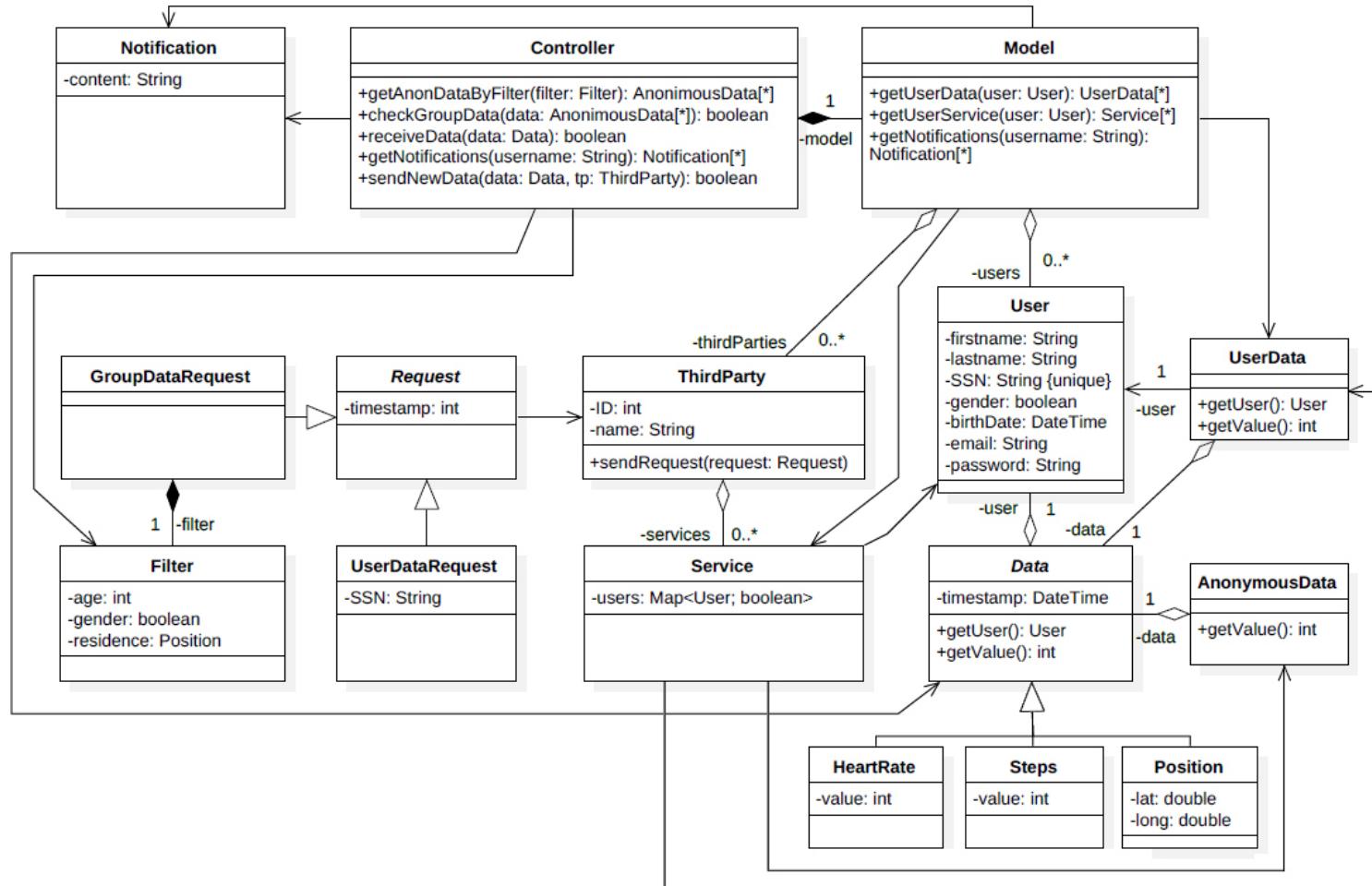
# Overview



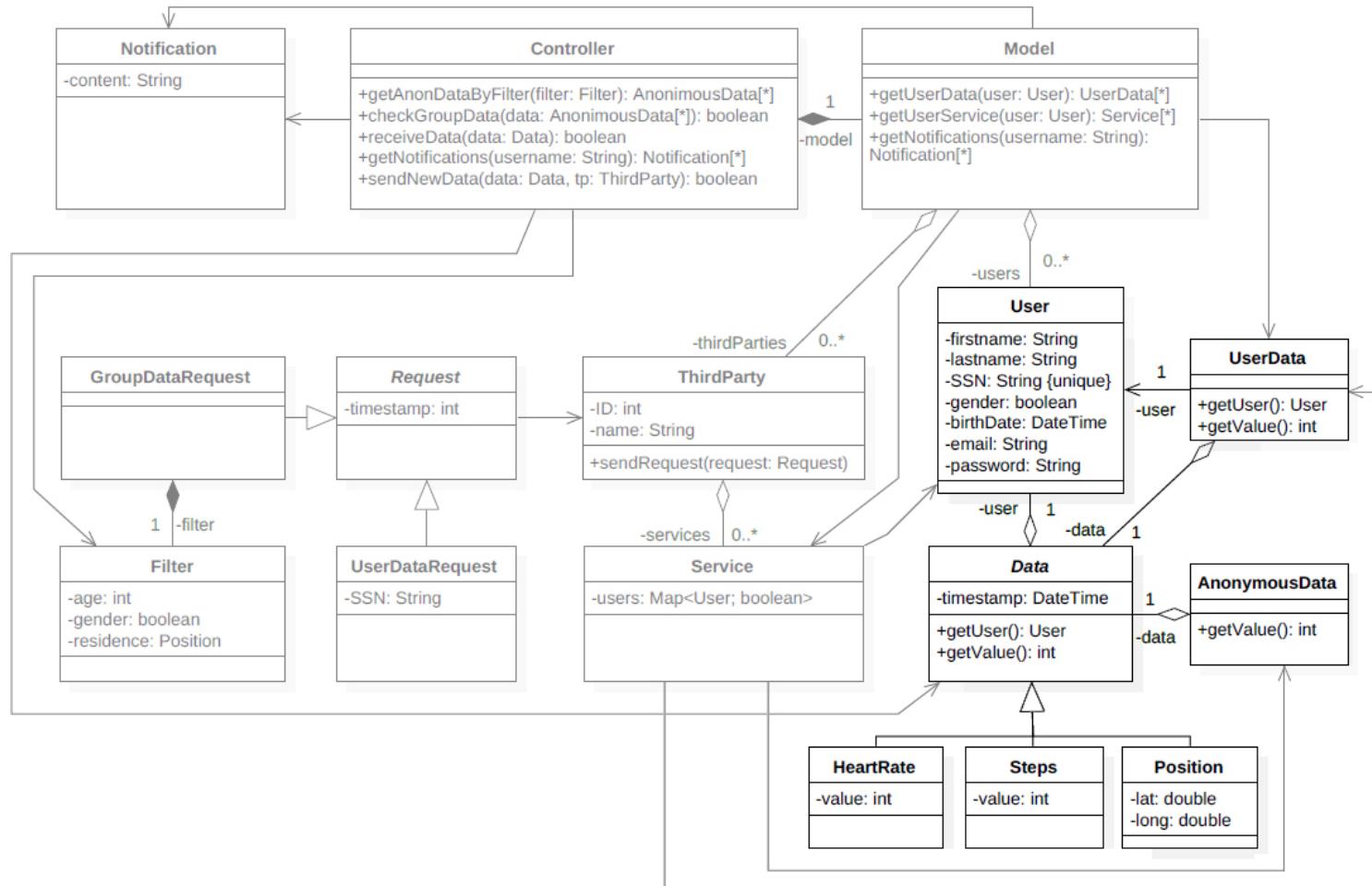
# Overview



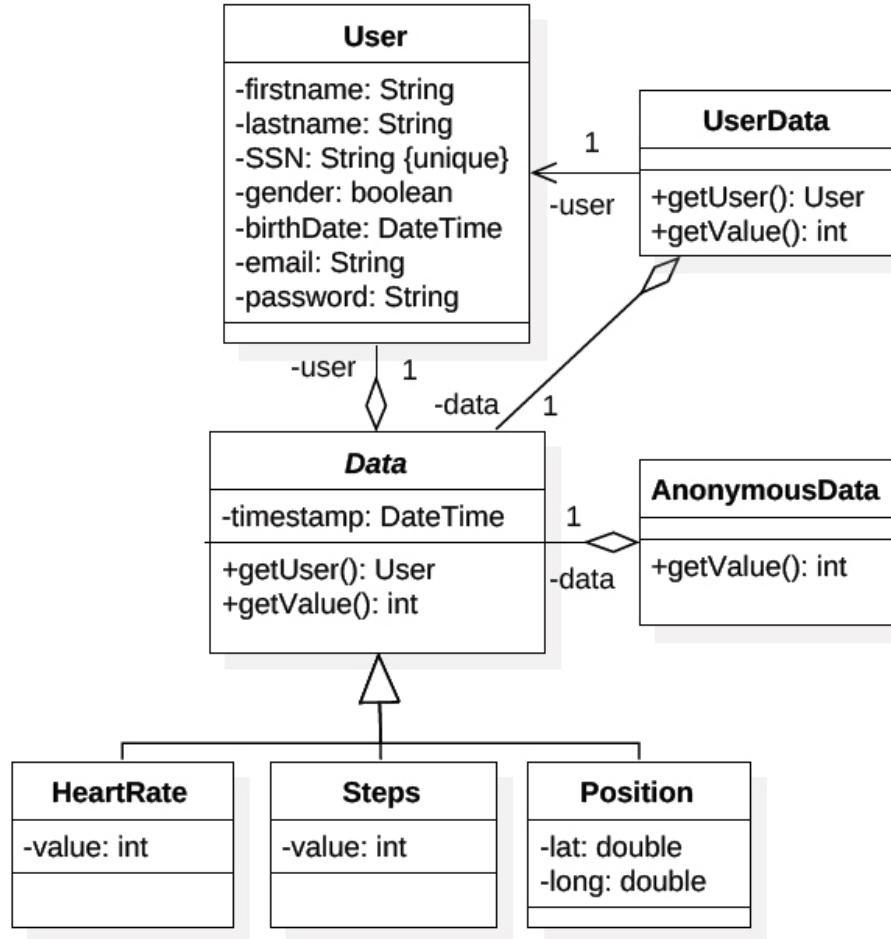
# Data4Help Class Diagram



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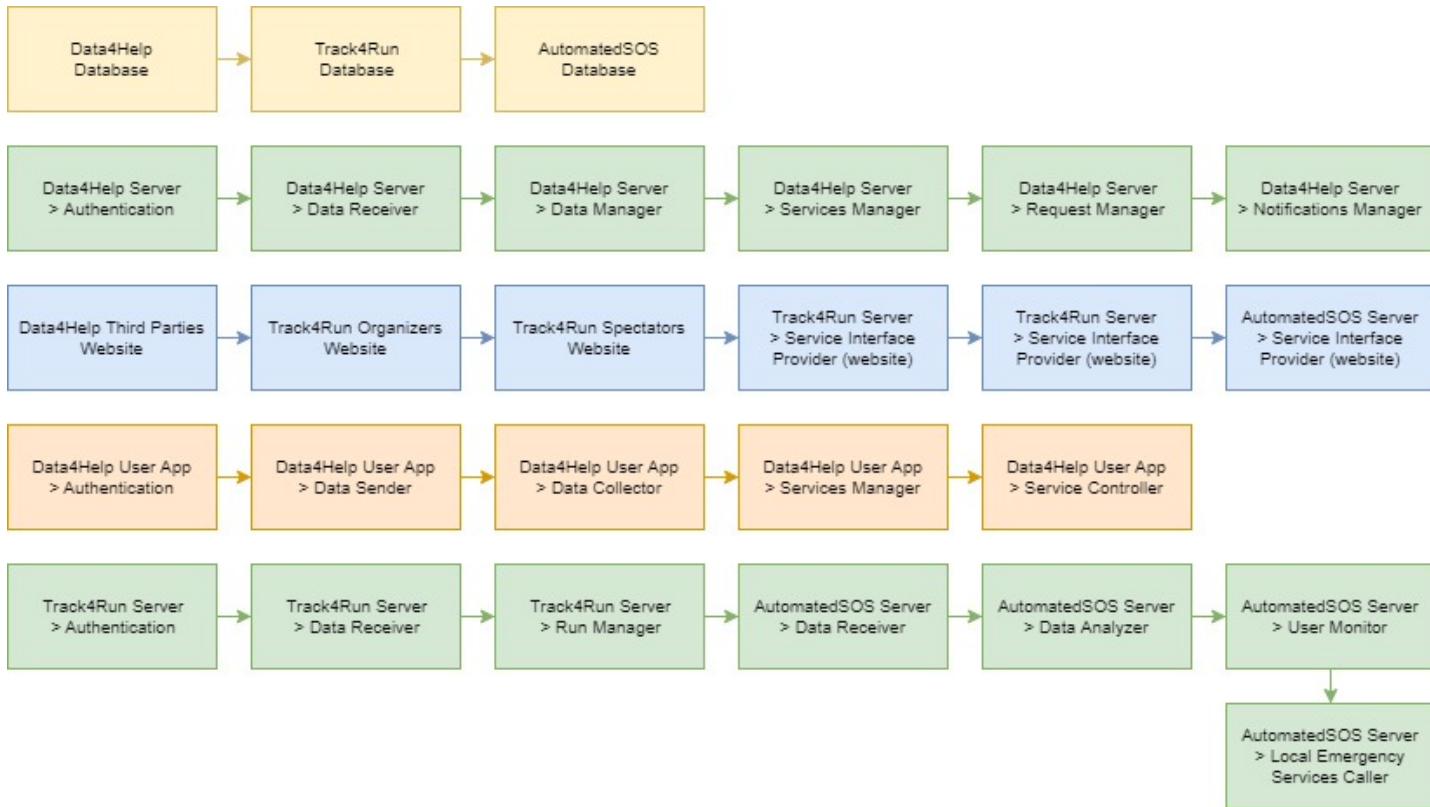
# Data4Help Class Diagram



# Architectural Styles and Patterns

- Three tier architecture
- Communication between components
- Data exchange
- Notifications system
- Third party services
- Defensive database design

# Implementation Plan and Unit Testing

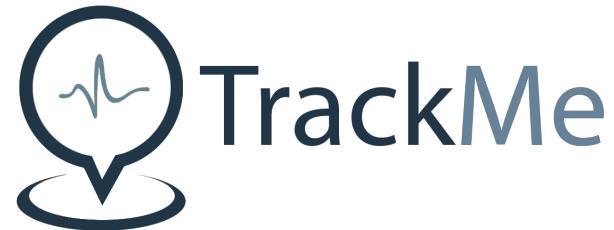


# Integration Plan and Testing





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