



**POLITECNICO**  
MILANO 1863

# Software Engineering II Project

Jacopo Pio Gargano, Cristian Giannetti, Federico Haag



Data4Help



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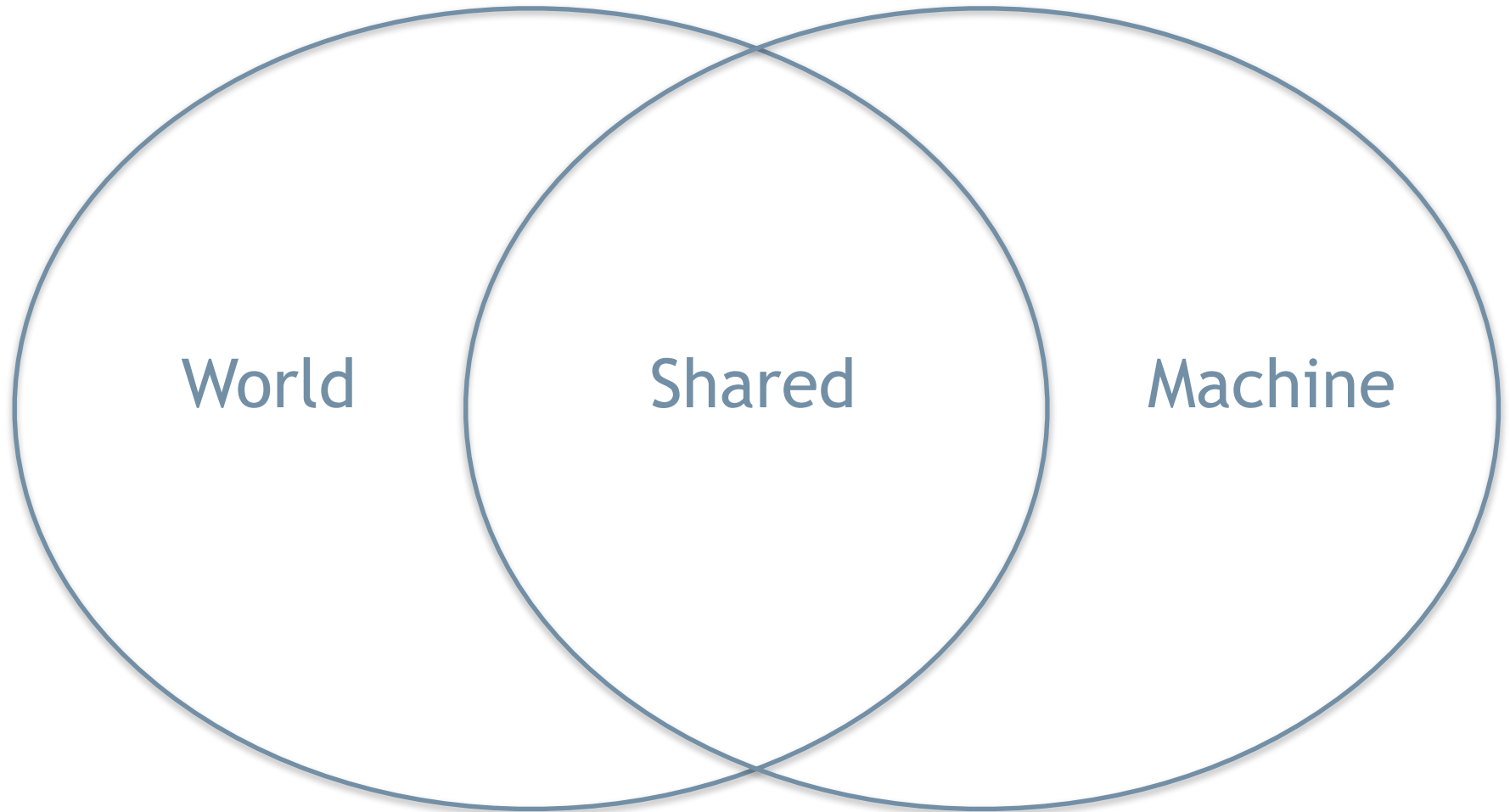


AutomatedSOS

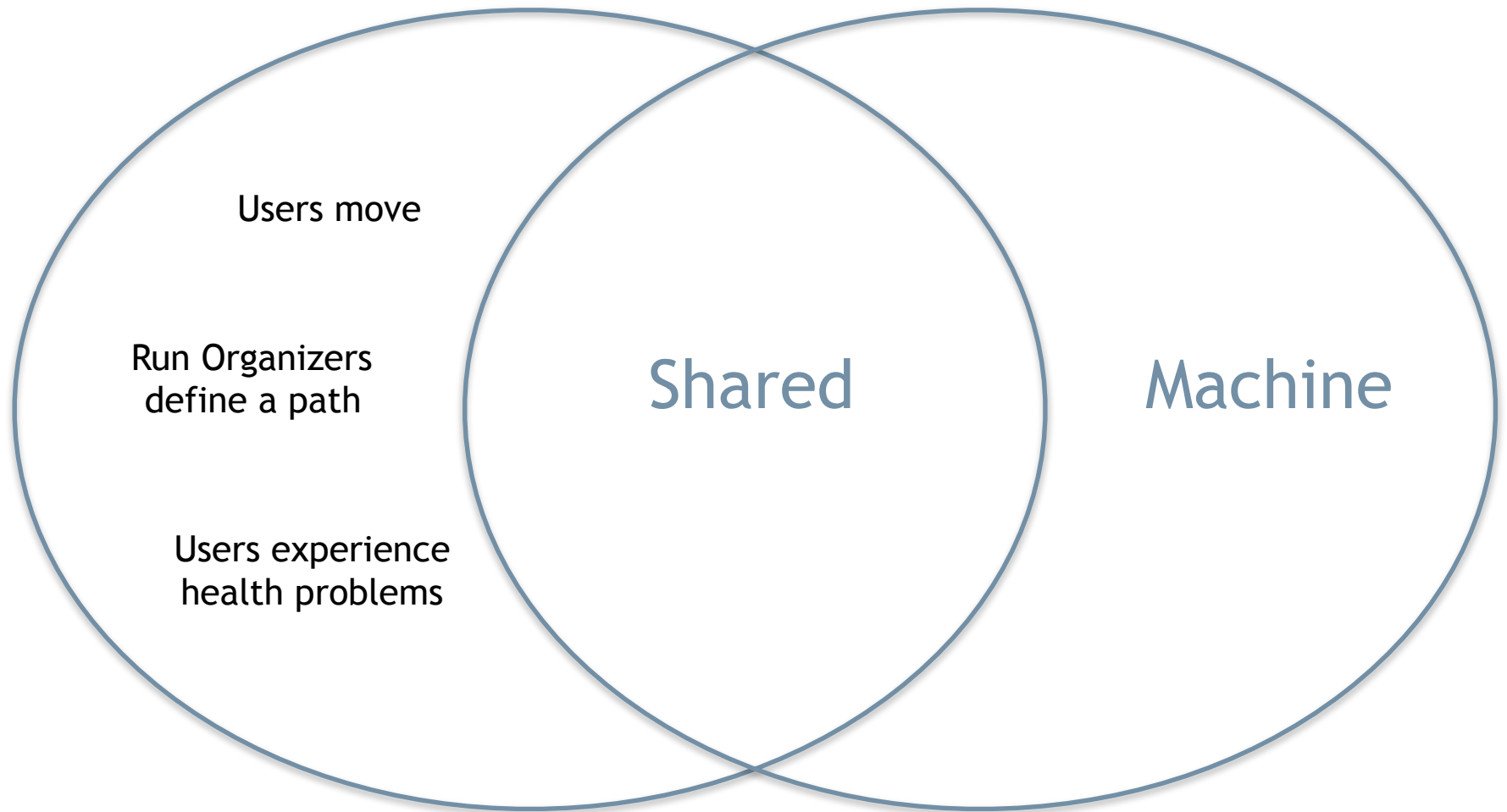


Track4Run

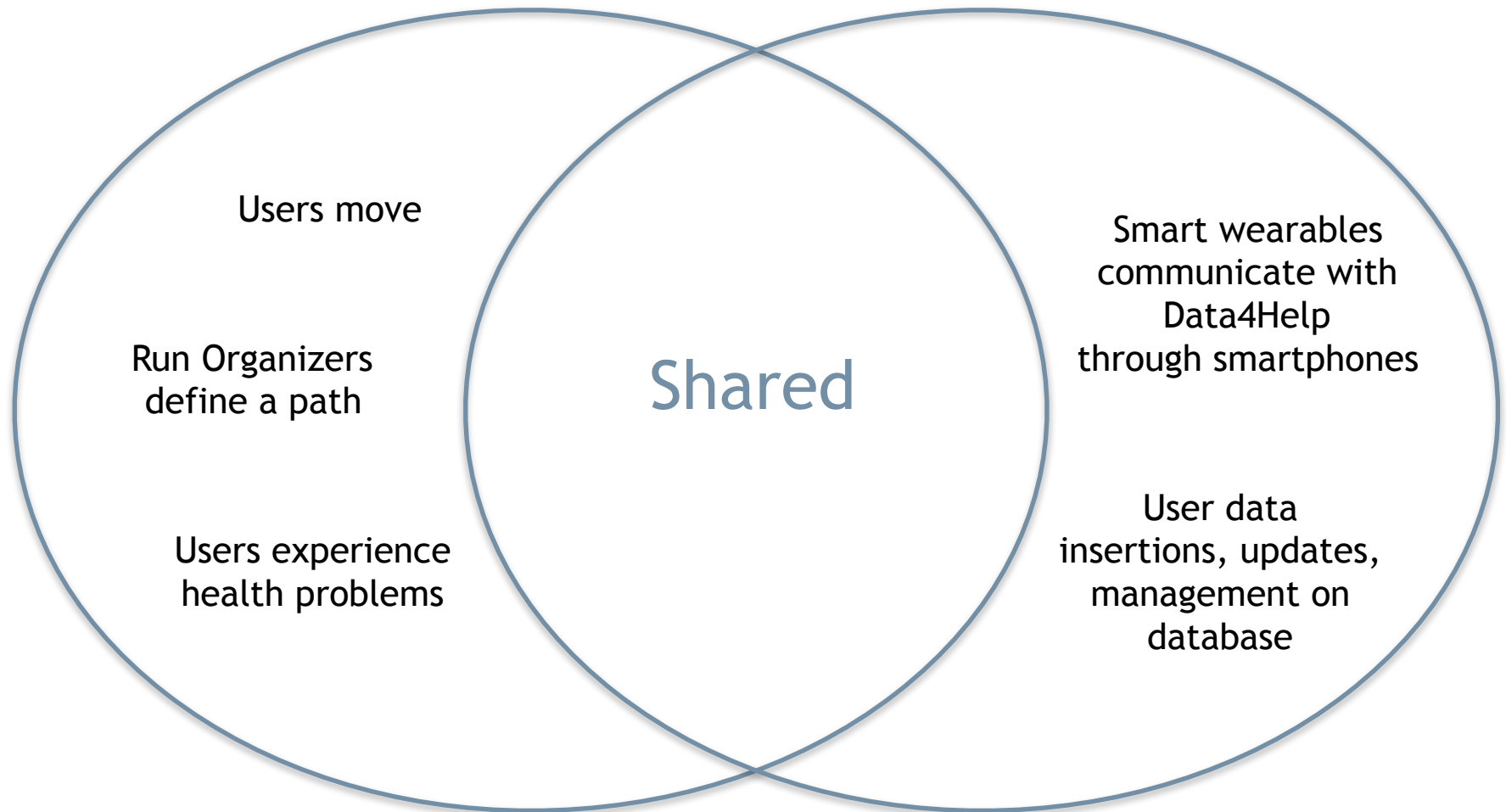
# World and Machine Phenomena



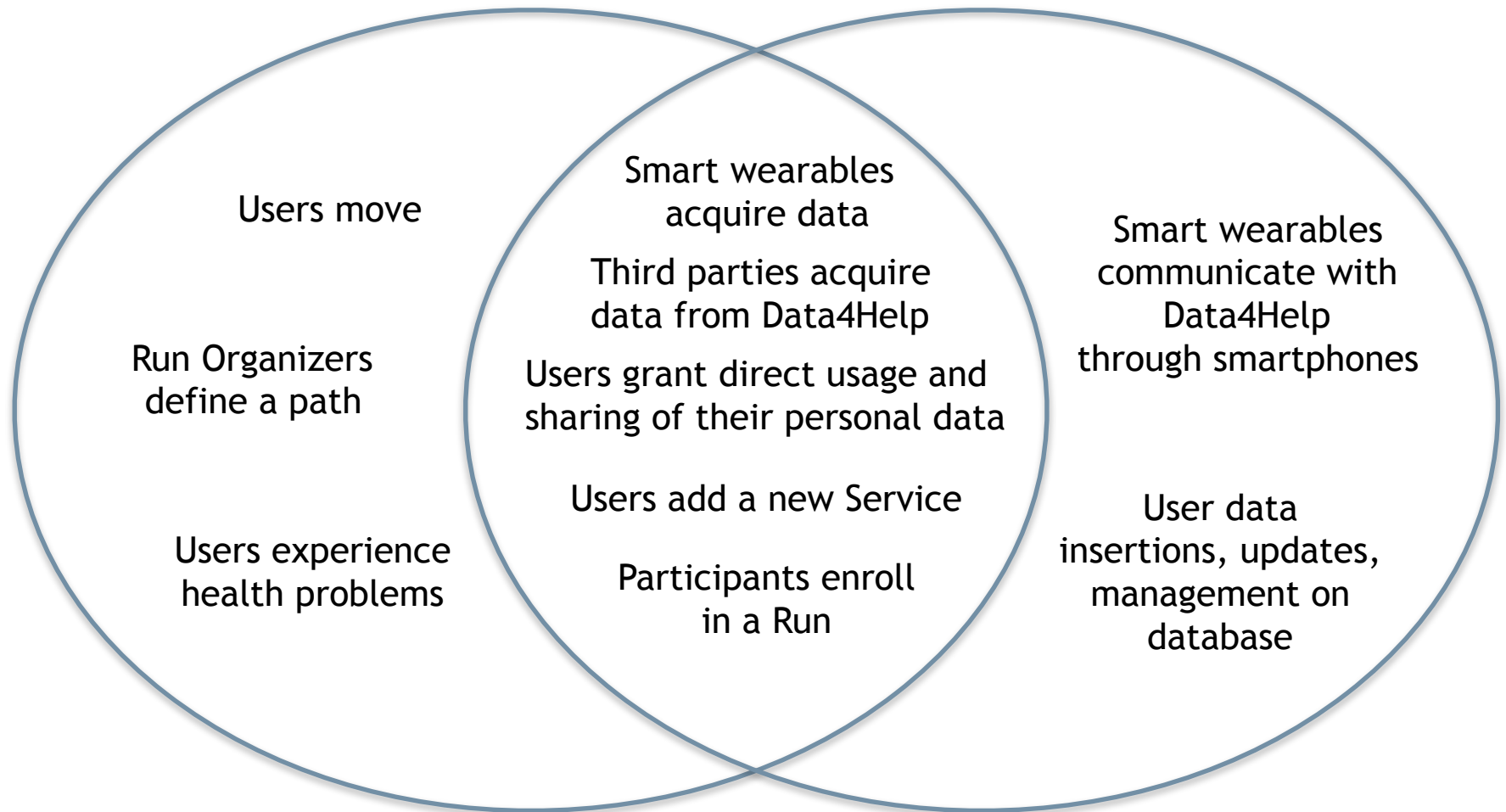
# World and Machine Phenomena



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- 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 so Services and to Data4Help.



- 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

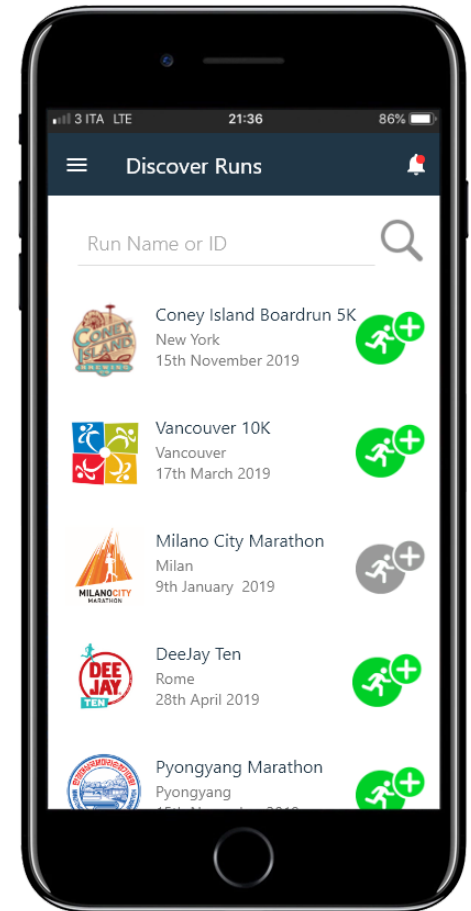
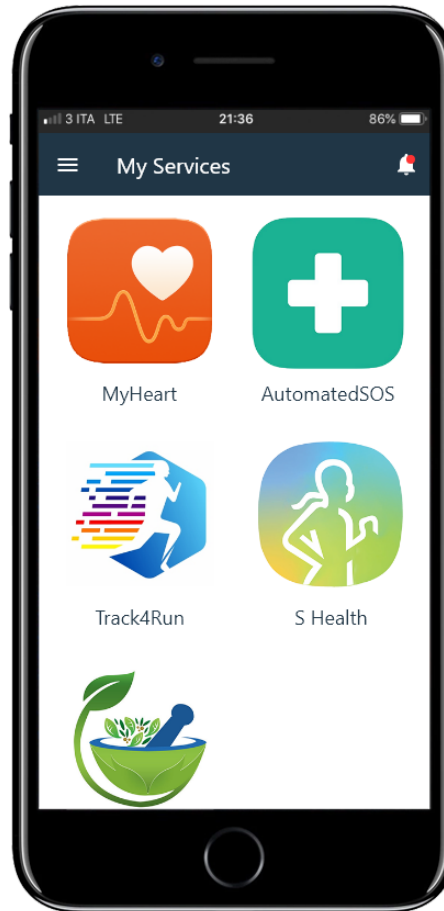
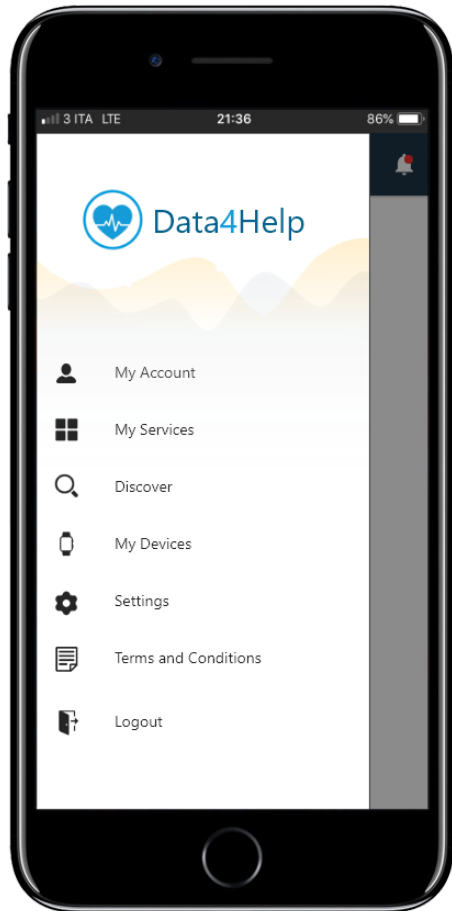
- Allow Organizers to create a Run.
- Allow Users to enroll in a Run as Participants.
- Allow Spectators to watch a Run.

# Main Requirements

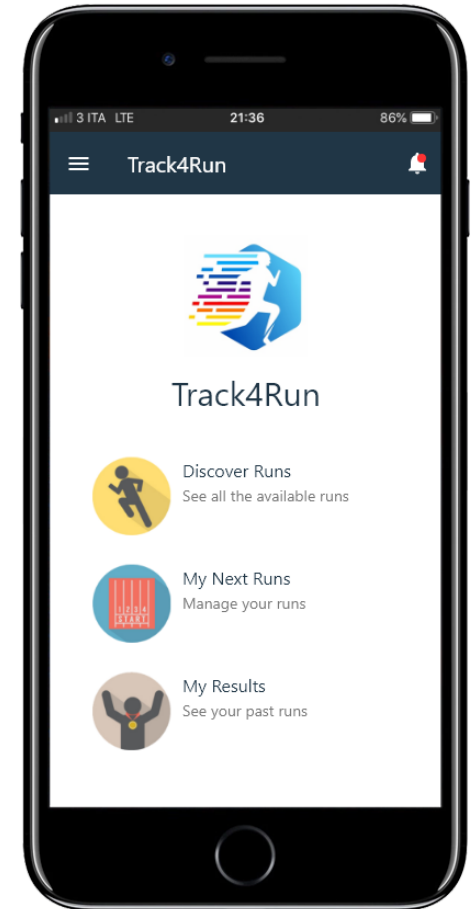
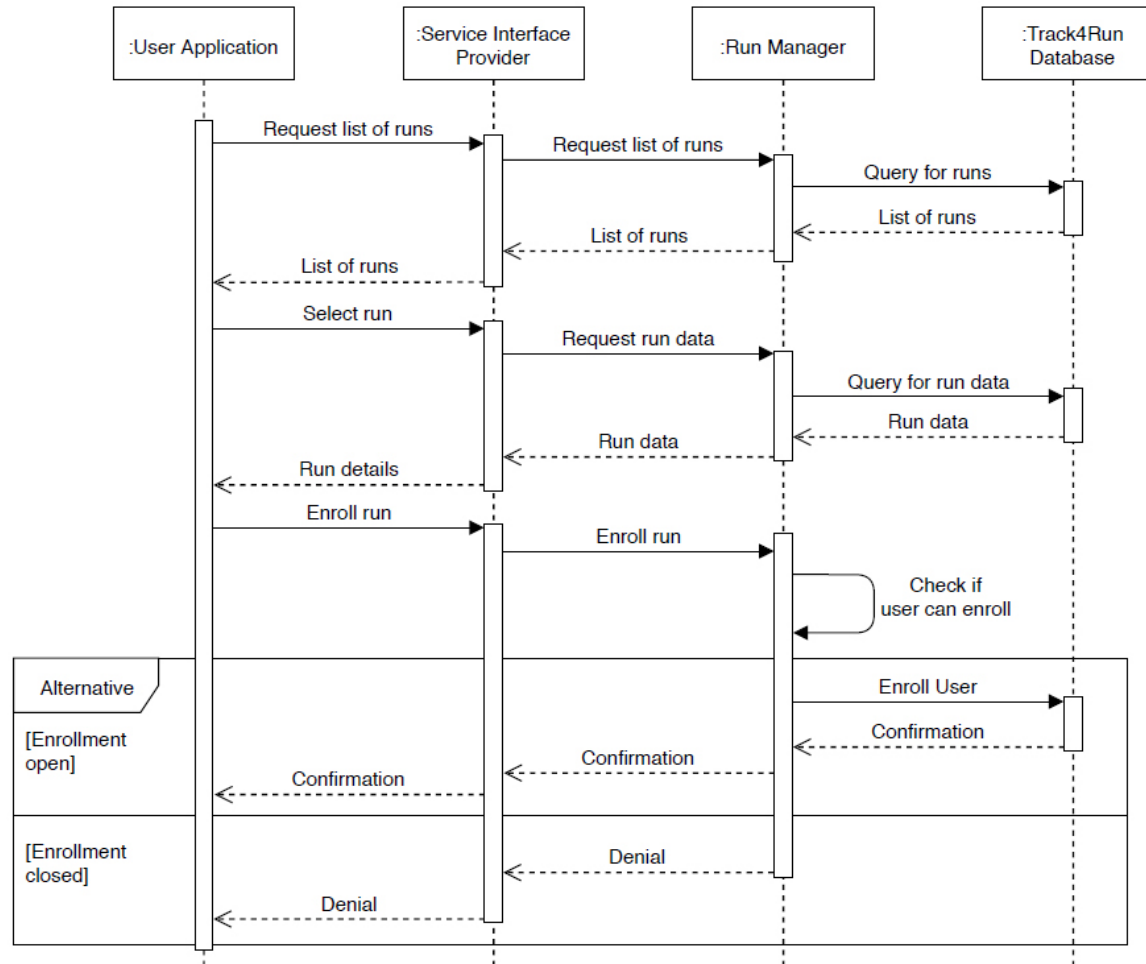
- Receive and store User data in Data4Help Database.
- Receive User consent approval or denial with respect to Third party data access requests.
- Send specific User data and Group data to the requesting Third party.
- Allow Users to add a Service.
- Call local emergency services providing necessary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



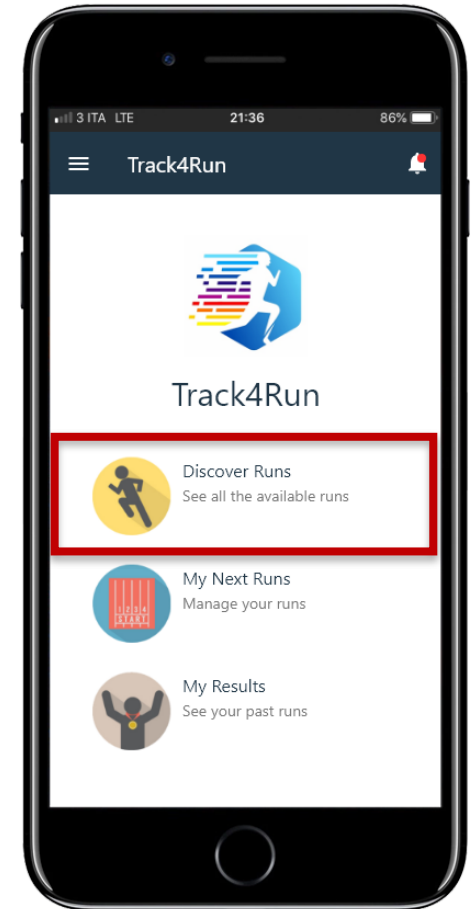
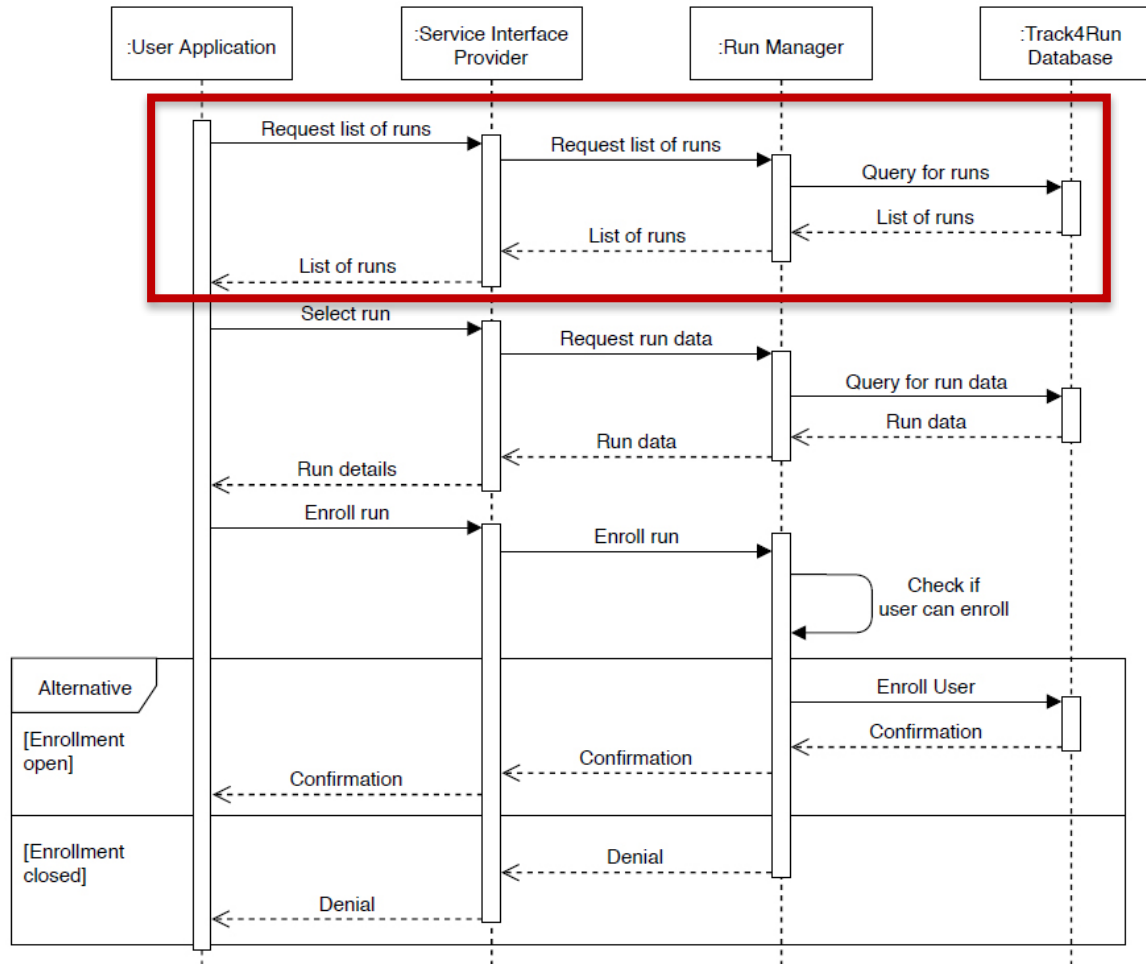
# A Meaningful Use Case



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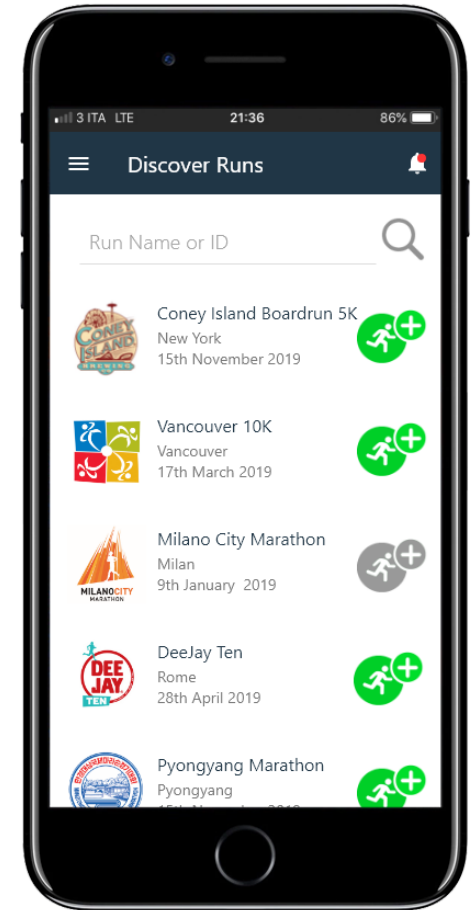
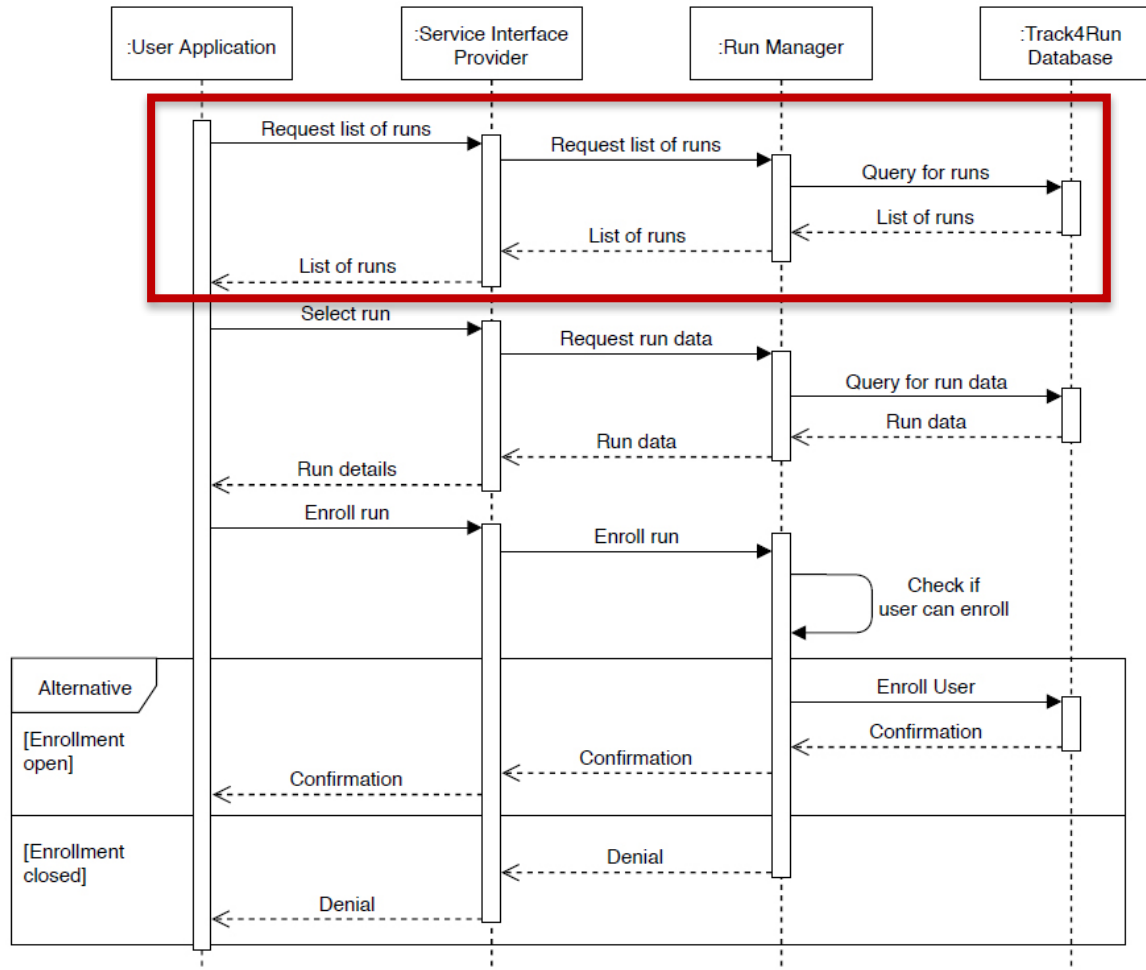


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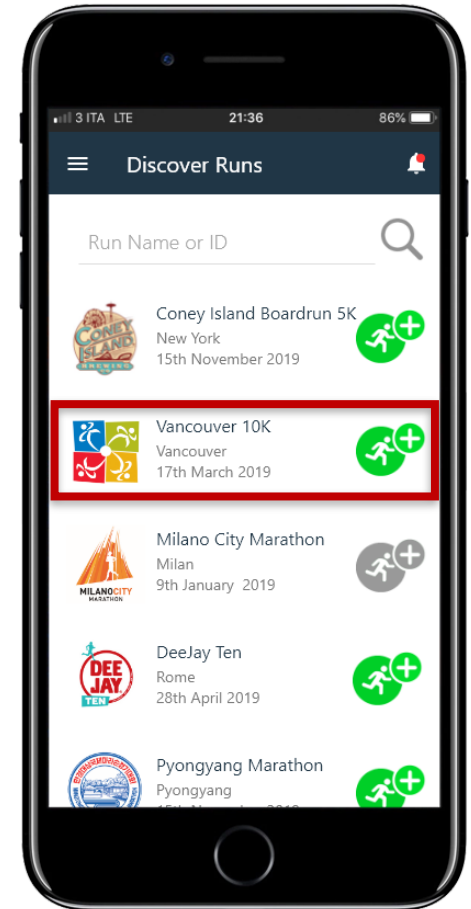
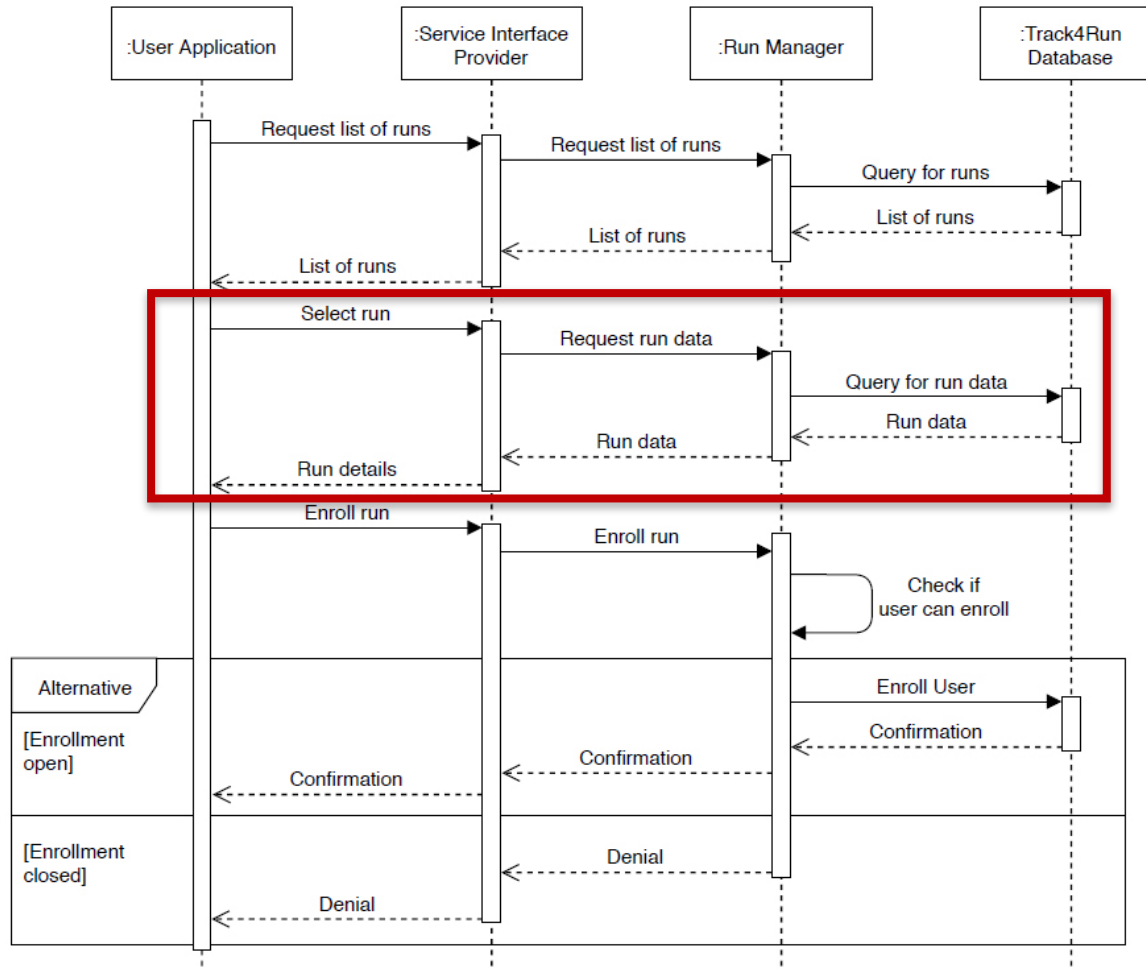




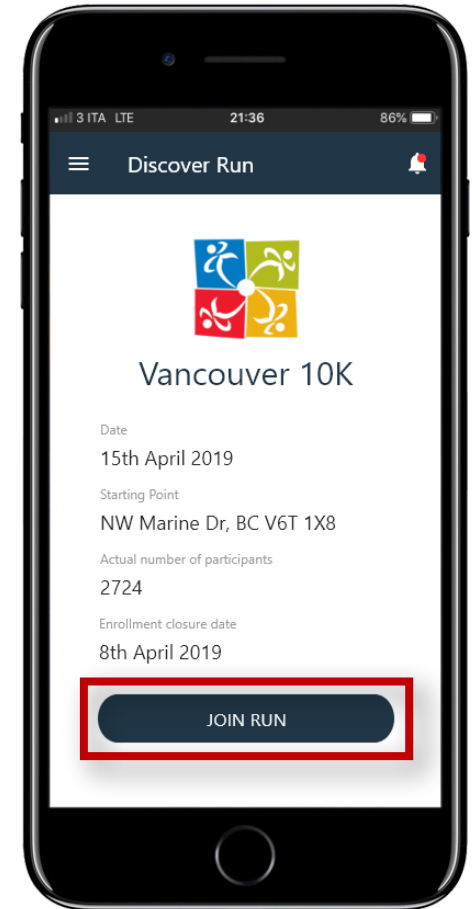
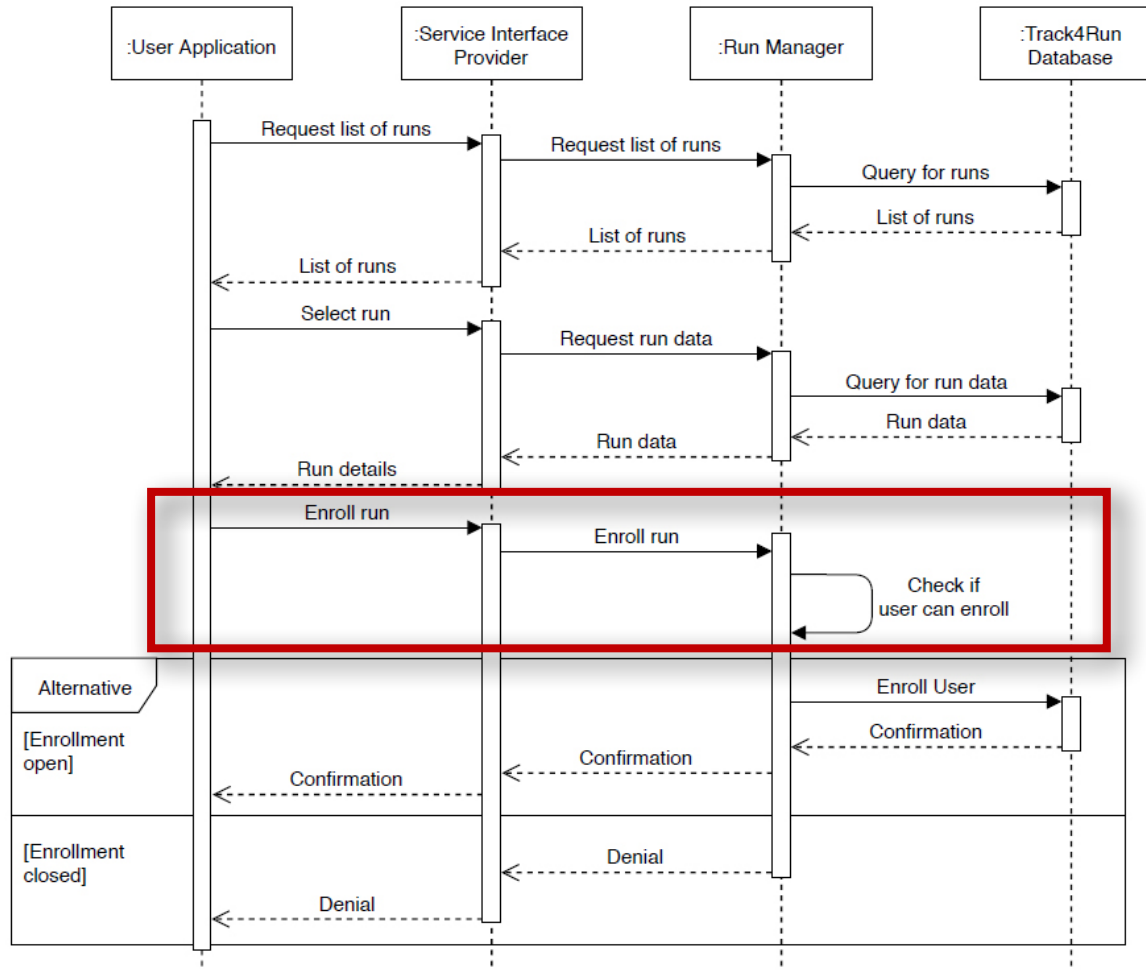
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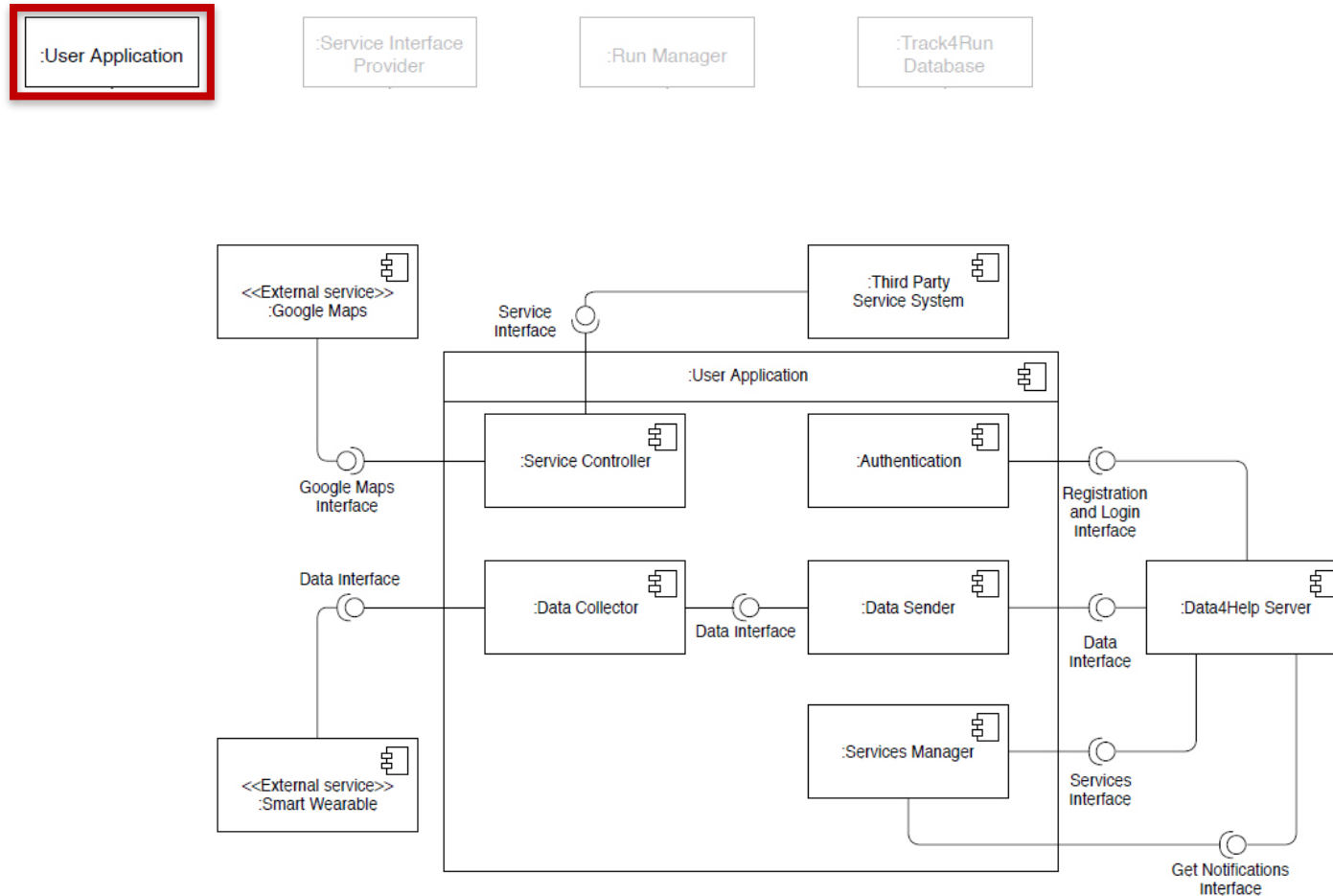
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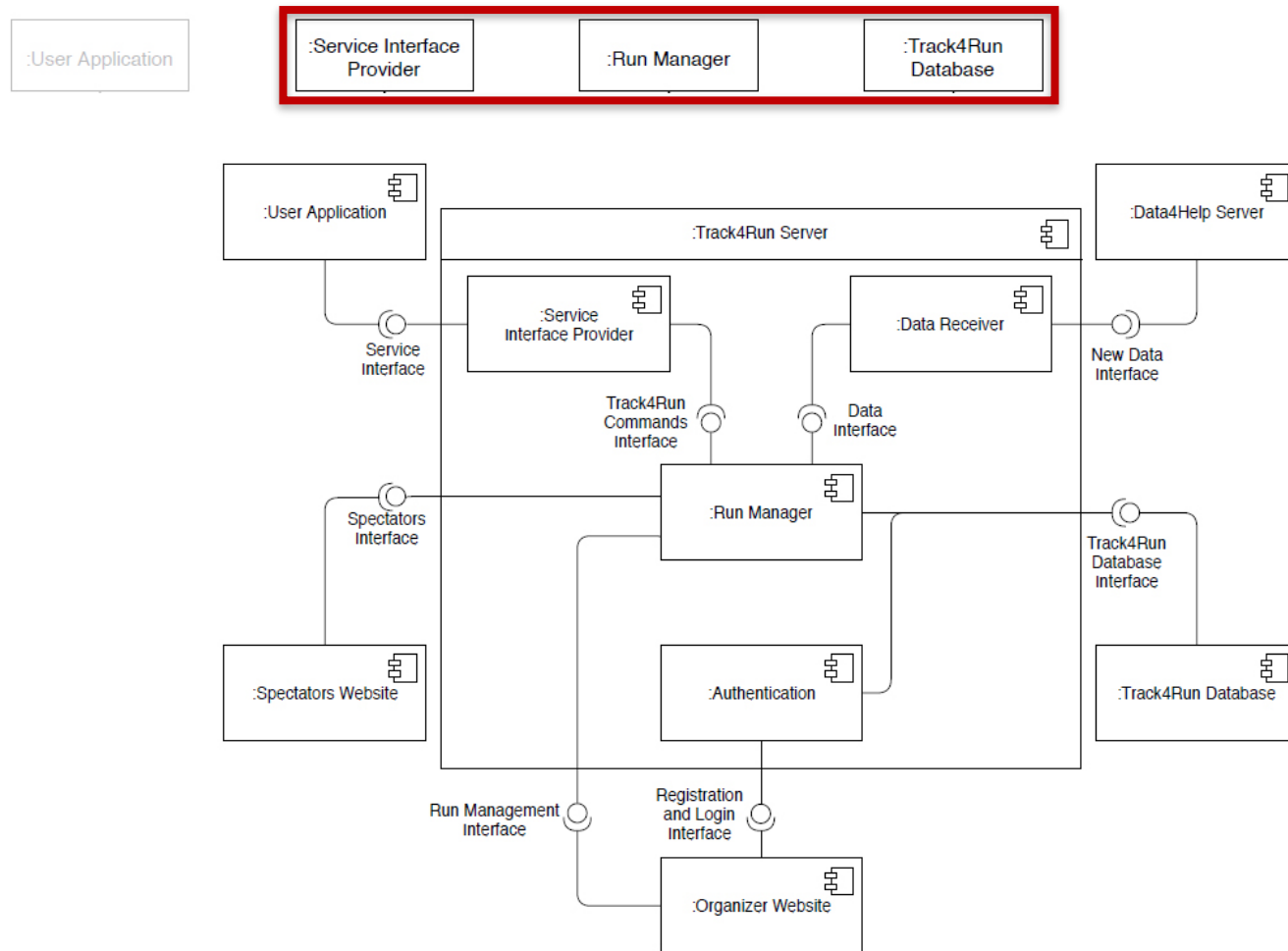
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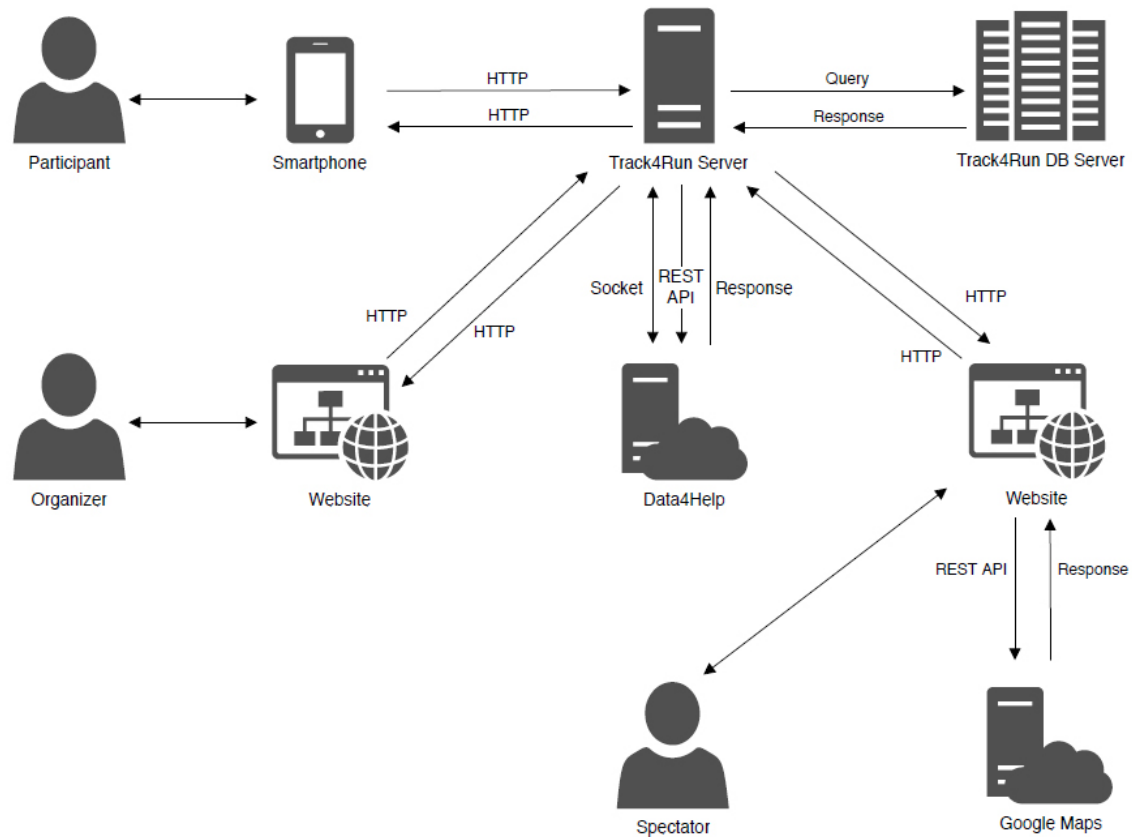
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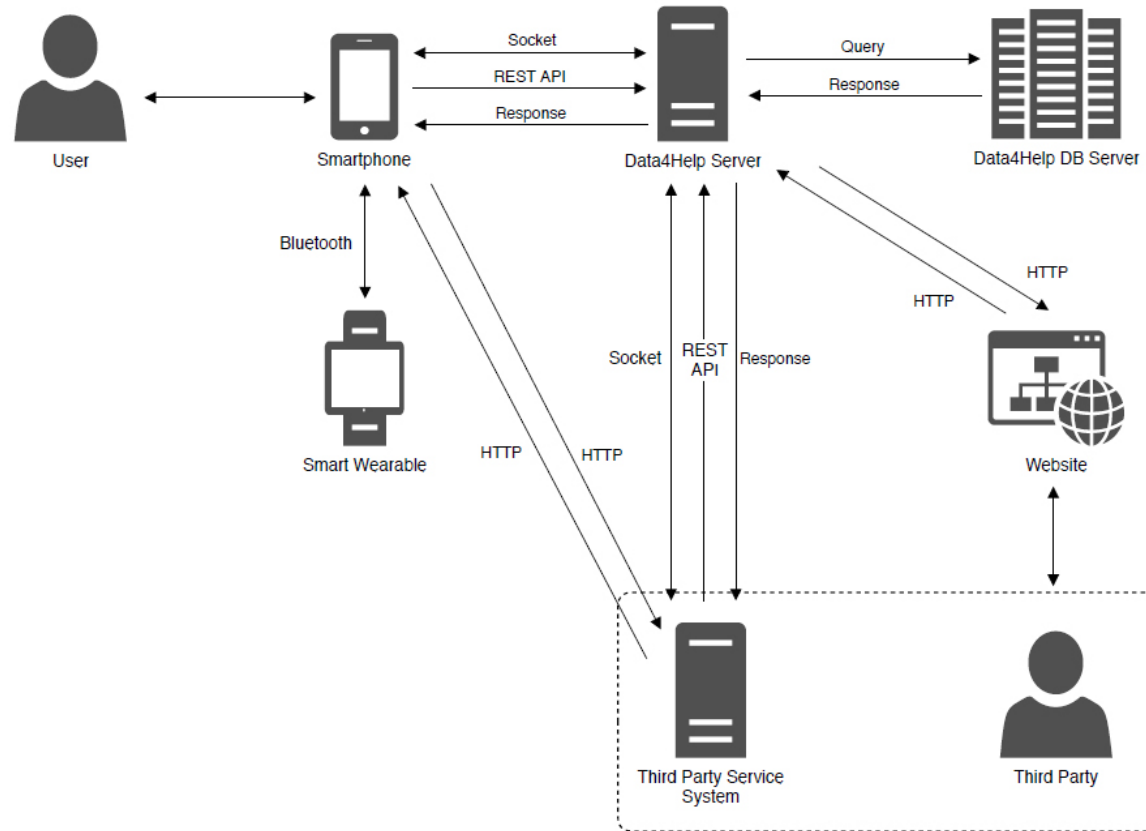
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# Overview

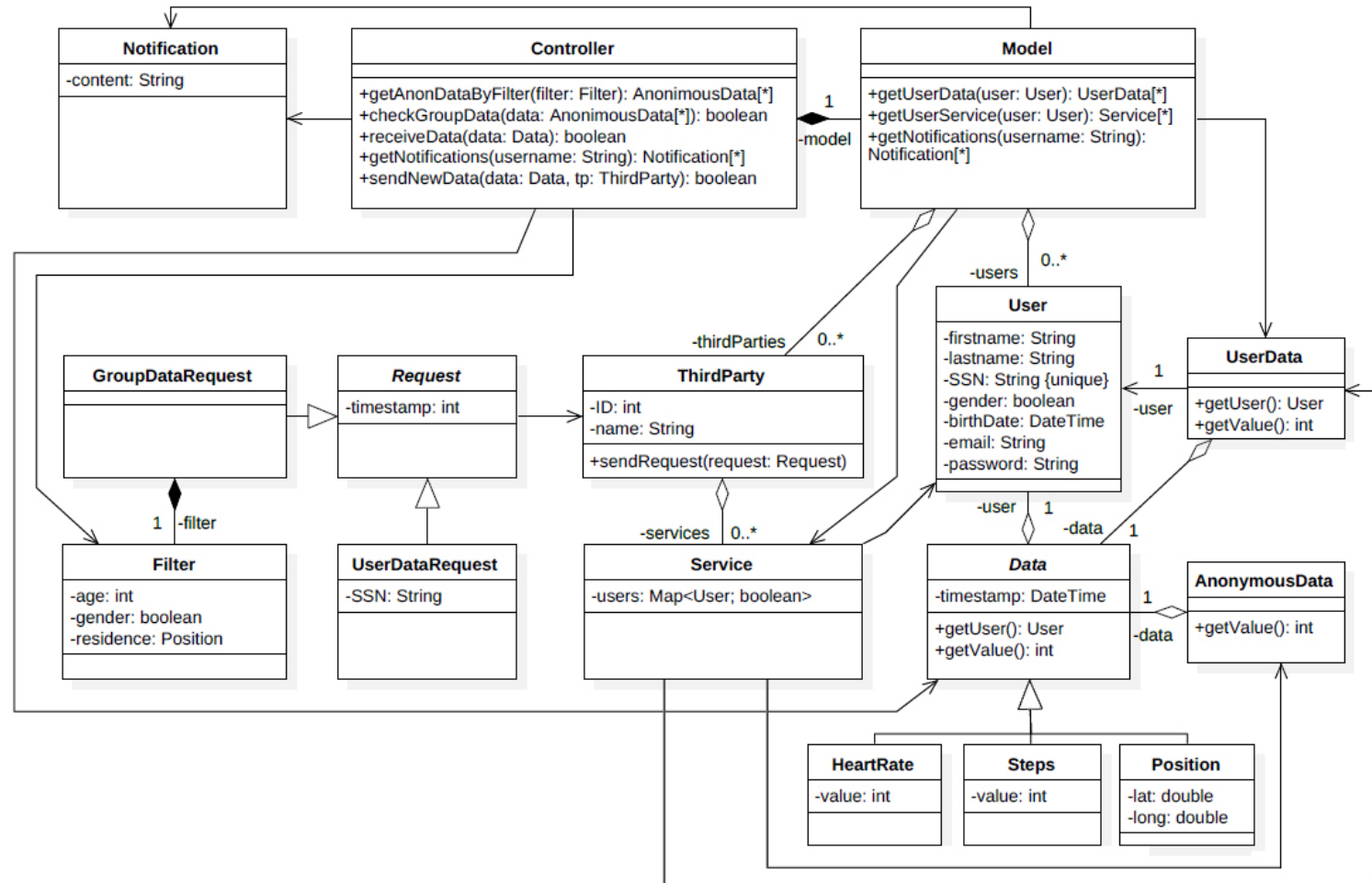


# Overview

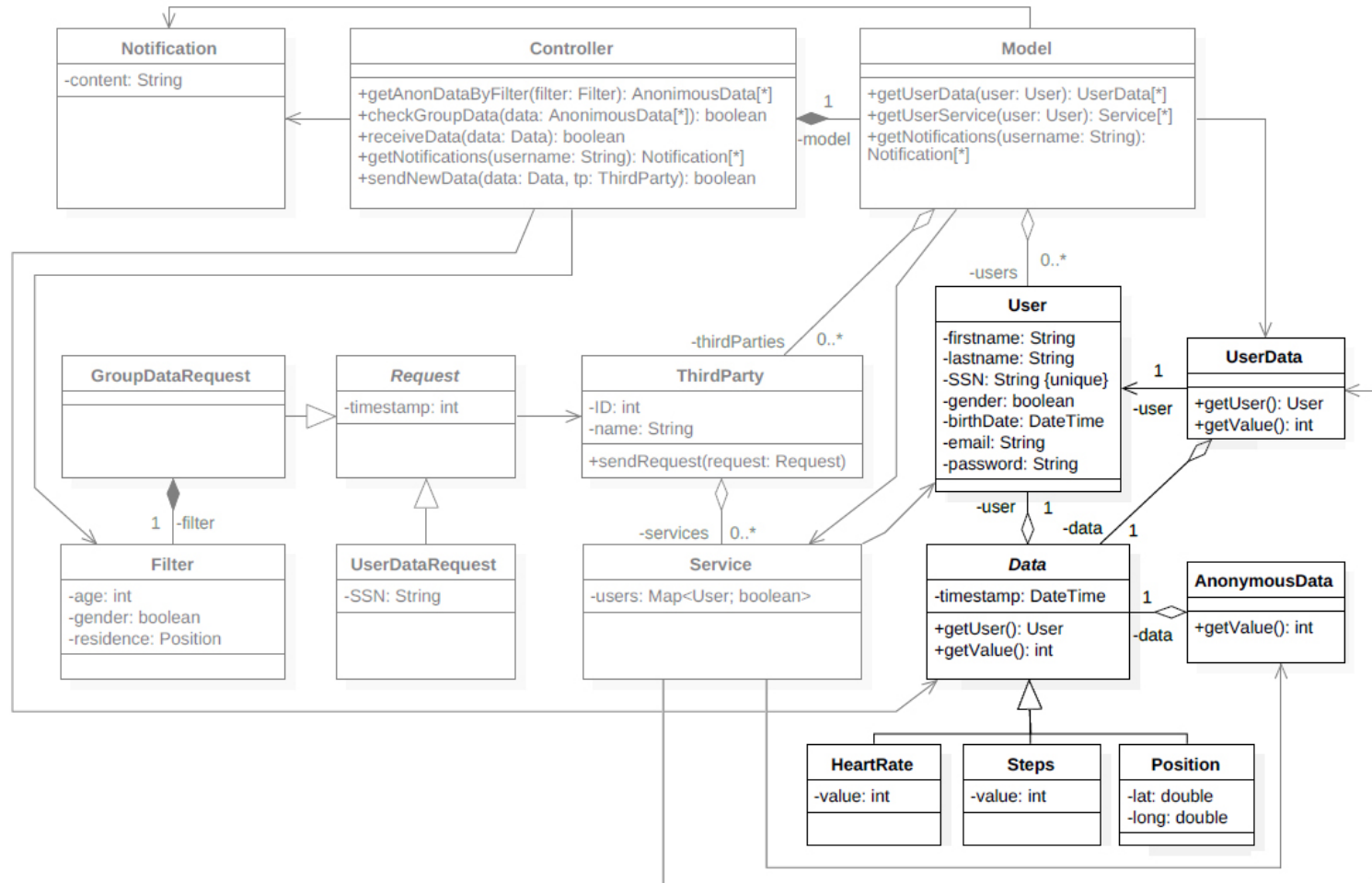




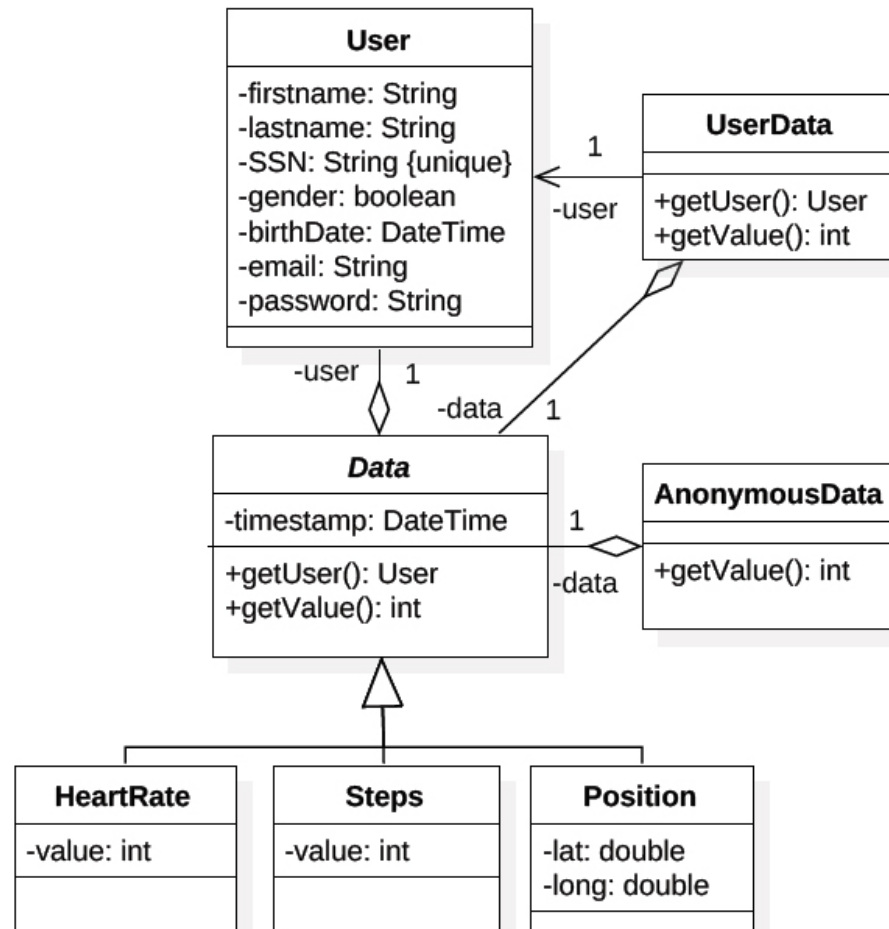
# Data4Help Class Diagram



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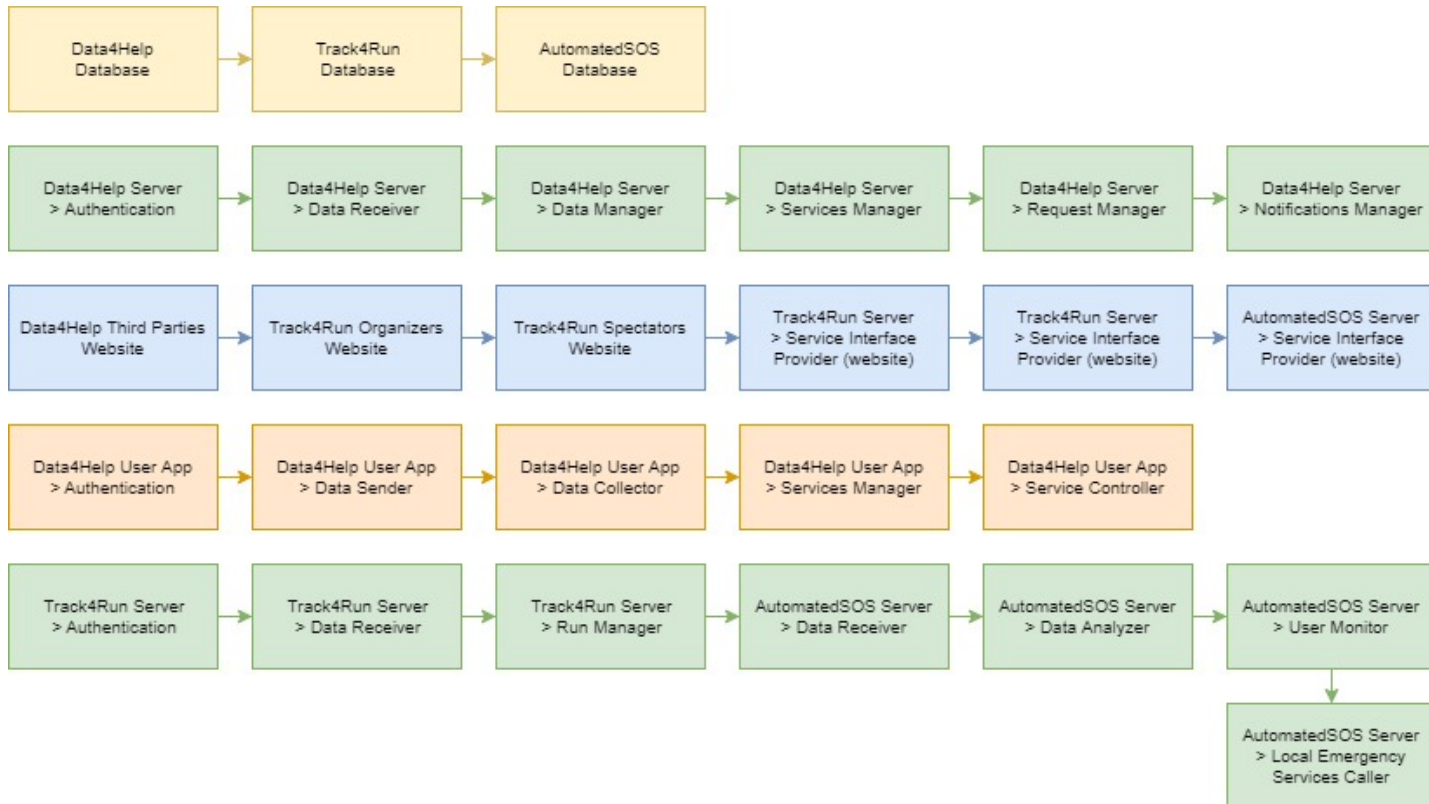
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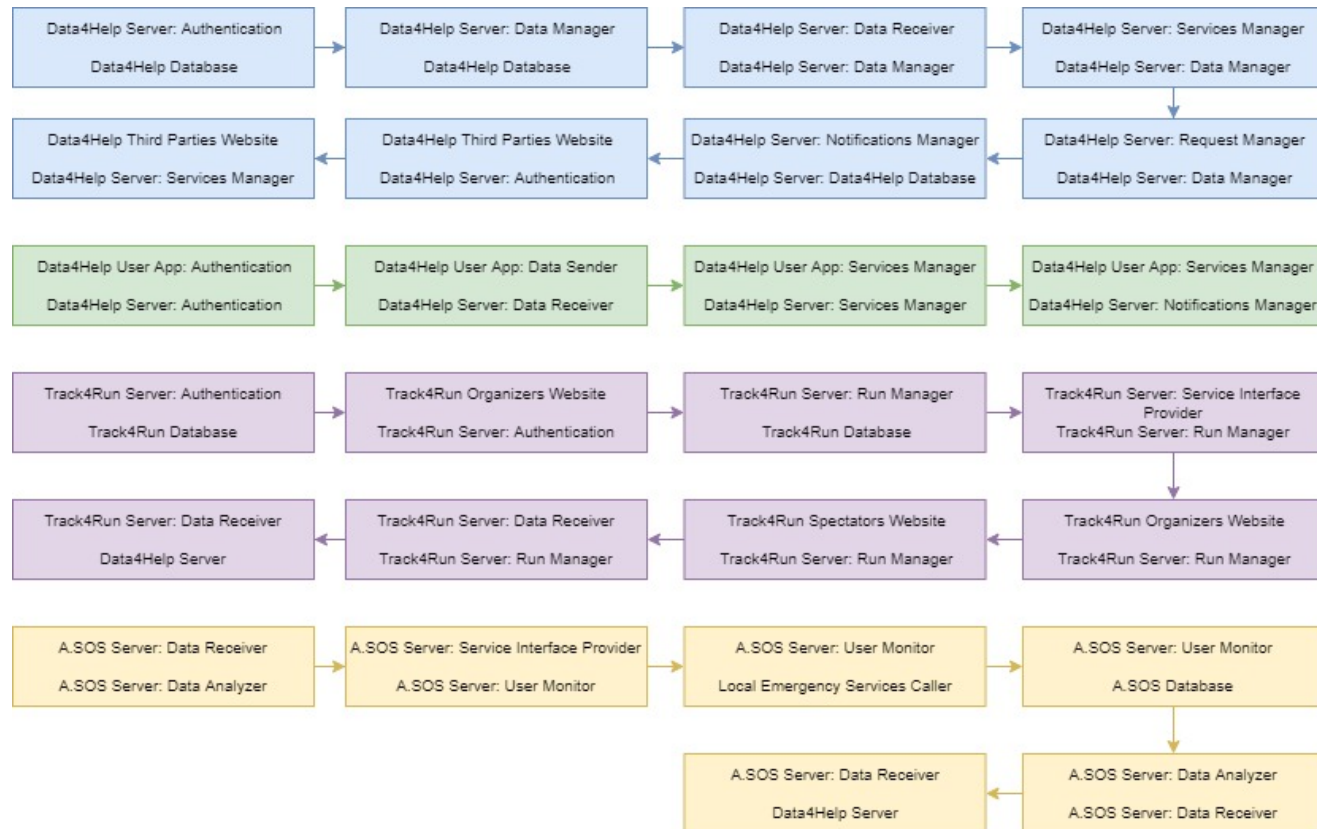
# Architectural Styles and Patterns

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

# Implementation Plan and Unit Testing

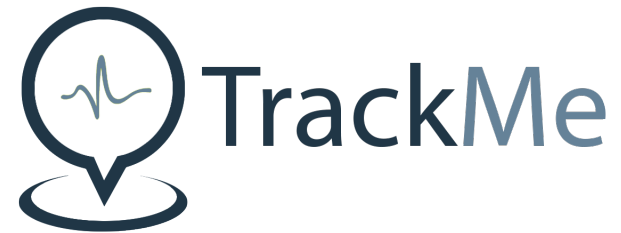


# Integration Plan and Testing





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