**Scenarios**

1. Join a run as a runner
2. Join a run as a spectator
3. SOS launched
4. Individual request
5. Anonymous request

**Scenario 1 -** Join a run as a runner

Mario is a sporty student who hears about a run organized by PoliMi Sport and would like to join it. PoliMi Sport is an association registered to TrackMe as a third party with the aim of guaranteeing the good health status of the enrolled students and proposing them new races every week. The unique way to join the run is to send the request to PoliMi Sport through the TrackMe app, so that Mario decides to download it and sign up. After that, he logs in with his credentials and looks for the run he is interested in. Once found, he asks to join that as a runner and at the same time accepts the treatment of his health status and location data by PoliMi Sport, the third party who organized the race. The system checks if the number of participants is not exceeded and if Mario has not already joined an overlapping run, then notifies Mario with a positive or negative result.

**Scenario 2 -** Join a run as a spectator

Luca is a professor who is fond of running and after a lecture hears his students talking about a run organized by the student union Poli4Run. It is an association registered to TrackMe as a third party with the aim of guaranteeing the good health status of the enrolled students and proposing them new races every week. He is very interested in the race joined by their students and he would like to go and see them competing, so Luca asks them for information and decides to follow their instructions. At first he downloads the TrackMe app and then he signs up. After that, he logs in with his credentials and looks for the run he is interested in. Once found, he asks to join that as a spectator. The system checks if the number of spectators is not exceeded and if Luca has not already joined an overlapping run, then notifies Luca with a positive or negative result.

**Scenario 3** - SOS launched

Antonella is an old woman who had heart disease in the past so she would like to be daily monitored to avoid problems. Her young nephew tells her about the TrackMe app, through which she could fulfil her needs. Delighted by this kind of solution, she decides to buy a smartwatch and download the app. Then she signs up to the TrackMe app and checks to have the AutomatedSOS service correctly activated. One day, after having climbed the stairs, the app retrieves the data from her smartwatch and evaluates them as exceeding the danger thresholds, so that within 5 seconds the SOS is received by the medical facility that sends an ambulance to the position detected by the woman’s wearable device.

**Scenario 4** –Individual request with a positive result

The Green Hospital wants to monitor the health status of one of its patient, Paolo, who recently recovered from an important disease. The hospital knows the mobile application TrackMe and it already has a valid account on the app. The doctor who is taking care of Paolo asks him to download the application, to link a smart device able to measure the health parameter needed by the doctor to monitor his health status and to register to the service. The doctor, using the account of the hospital, sends a request to Paolo (known by his SSN) for the treatment of his data. Paolo accepts the request and the hospital is allowed to receive the data produced by Paolo’s device.

**Scenario 5** – Anonymous request with a negative result

The association WalkMore wants to promote walking among young people who have a too sedentary life. As a first step to reach its goal WalkMore decides to use the new amazing app Data4Help to monitor the distance that a group of target young people runs every day. WalkMore registers to Data4Help and forwards a request to access the anonymized data of people between 18 and 23 living in the municipality of Milan. Unfortunately, due to the recent release of the application, there is not enough data in order to guarantee the privacy of the selected target and the request is frozen until enough data are collected.