**Definitions, Acronyms, Abbreviations**

**Definitions**

* TrackMe: is an application which serves to third parties to monitor the location and health status of individuals.
* Data4help: is a service to access to the data of some specific individuals and to access to anonymized data of groups of individuals to the third parties.
* AutomatedSOS: is a service which provides monitor the health status of the subscribed customers and controls some parameters by comparing with a certain threshold.
* Track4Run: is a service for organizers to define the path for the run, for participants to enroll to the run, and for spectators to see on a map the position of all runners during the run.
* Individual: the person who wants to benefit from the service by sharing their profile, health, location and chronic disease data.
  + Profile data: profile data is information that identifies the person. It contains name, surname, SSN, e-mail, phone number, address, gender, birth date, nationality, weight and heigh.
  + Health data: data measured by sensors such as pulse, pressure in the environment and acceleration is in this group of data.
  + Location data: location data is received through the GPS sensor.
  + Chronic disease: is disease that persists over a long period of time.
* Organizer: is a person who arrange runs and define paths
* Smart device: the device that should be present on the individual for the necessary measurements. This device must be connected to the internet while on the individual.
* Smart phone: the electronic device that contains our application that must be kept in connection with the smart device.
* Bluetooth (Wi-Fi): The person's smart device is connected to a smartphone via bluetooth.
* Runner: An individual user who registered to run as an athlete.
* Ambulance: The vehicle to be sent by the hospital to the person's location when the measured values fall below a certain threshold.
* Hospital: An institution or a third party in which persons agree to share their information and health status. It is also obliged to send an ambulance to the position of individuals when necessary.
* Active: The status of hospitals when they serve.
* Deactive: The status of hospitals when they do not serve.
* Spectator: People coming to watch the run, audience.
* QR Code: Before the start of the run, code that is read into the system by spectators at the entrance, to be able to follow the runners on the map.
* Sensors

1. Pulse meter: A sensor that takes the pulse accurately.
2. Accelerometer: A sensor in mobile phones are used to detect the orientation of the phone.
3. Gyroscope: A sensor that adds an additional dimension to the information supplied by the accelerometer by tracking rotation or twist.
4. Barometer: A sensor is used in meteorology to measure atmospheric pressure and forecast short term changes in the weather. Atmospheric pressure also varies with elevation, a barometer can also be used as a basic altimeter.
5. GPS: A sensor that ensures that the person's position is correctly received.

* Pre-confirmed list:A list that contains the name of the third parties that an individual allows to share his/her data without giving additional approval. The list is used for speeding up the process of data sharing approval between TrackMe and individuals. Because, every time an individual data is requested by a third party, TrackMe should ask the permission of individual for data transmission. With this list, TrackMe first checks the list of the individual and if it finds the name of the third party, then system shares individuals data directly, however, if the third party is not on the list, then TrackMe asks to individual whether he/she wants to share his/her data with this third party. Each individual has their own unique pre-confirmed lists and they are able to manage their lists to remove and add new third parties.
* Indirect approval request:When a third party makes an individual data request, before asking directly to the individual for his/her approval, system first looks at the pre-confirmed list of the individual to see whether the individual has already white listed that third party. This process is called as “indirect approval request”. The reason under this process is to speed up the process of data request and not to annoy individuals constantly each time his/her data is requested by a third party.
* Direct approval request:If the system makes an indirect approval request and cannot find the name of the third party under the confirmed list of individual, then it directly asks the individual whether he/she wants to share his/her data which is currently being requested by the third party. And this procedure is called as “direct approval request”.
* Anonymity constraint:This is the constraint which must be satisfied when an anonymous data is requested. This constraint provides an additional layer for the proof of the anonymity of data. More specifically, it defines a threshold for the minimum number of records that should be included in the data in order to make it anonymous and available for sharing. For example, if the number of records of the result of an anonymous data request is less than 1000, then the resultant data will not be shared with the third party.

References:

* <https://www.gsmarena.com/glossary.php3?term=sensors> (for definition of accelerometer)
* <https://medium.com/@aurelie.lebec/triggering-an-event-on-phone-movement-react-native-and-expo-32e55a4e184c> (definition of gyroscope)
* <https://en.wikipedia.org/wiki/Barometer> (definition of barometer)
* <http://www.idph.state.il.us/idhp/idhp_ChronicDisease.htm> (definition of chronic disease)