

Heart Rate Scenario – an application watching your heart health

„Health is not simply the absence of sickness.“

Solutions

Technologies:
Android , Java, REST, JavaScript



Challenge

The need for healthcare applications arose from social phenomena like ageing, increased number of obese people and major sensitivity towards disabled and diabetic people and eco-friendly products. This results into challenging specifications for personalised solutions for Sport and Work wearables.

The Heart Rate Scenario application is for people who want to improve their lifestyle; one means is by measuring biometric data. Particularly, the app addresses patients suffering from heart conditions or having supported specific medical procedures (stents, by-passes) who still want to have an active life and practice sports.

Solution: Heart Rate Monitoring App

Heart Rate Scenario is one of a series of applications developed for integration with wearable devices. Ropardo built the application from the ground following the IoT concepts.

It embodies three devices: a sensor t-shirt, the Android smartphone, and a web application. The sensor in the t-shirt takes information from the body and communicates it to the smartphone application that reads it for the user and the web application (portal). During physical activities the smartphone application monitors and stores data, evaluating the received heart rate values.

How does wearable tech work? When the value of Heart Rate (sent by sensor) is below the minimum or above maximum thresholds set inside profile then an alert message is displayed on the user's Smartphone and a SMS alert is sent to the Emergency Contact List. If a fall is detected then an alert message is displayed on the user's Smartphone and a SMS alert is sent to the Emergency Contact List.

About Ropardo

ROPARDO is one of the leading IT companies in Romania, operating offshore, nearshore and on site. We specialize in custom software development, implementation of complex software solutions, maintenance of software/IT systems, and full Oracle EBS and SAP consultancy for worldwide customers operating in a wide range of industries.

Innovation, Quality, On-time Delivery have been our constant objectives. The innovation in our services and products is a direct result of our permanent involvement in European co-funded Research & Development projects.

Further info at: www.ropardo.ro

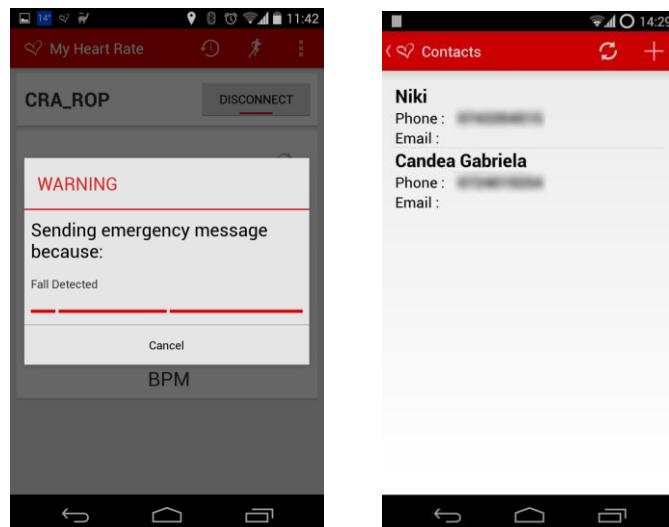
Ropardo MyHealth

Ropardo is constantly engaged in research and innovation projects, being selected as the expert with the necessary skills and resources to implement innovative solutions in the public sector and various industries.

eHealth has become an area of expertise for Ropardo after having successfully developed a series of web and mobile applications to serve health purposes in various life areas: work, physical activities, fun.

Further info at:

<http://ropardo.ro/applied-research/>



SOFTWARE CONSULTING	Requirements management System analysis
SOFTWARE DEVELOPMENT	Architecture design Implementation Software test Project Management
SOFTWARE SERVICES	User training Software Maintenance Performance Tuning
TESTING/ QUALITY	Functional testing Unit testing
STANDARDIZED ITMS SERVICES	Change/Problem/ Incident/Release Management

LEVEL of SERVICES

Outsourcing to Ropardo

- Quality custom software development
- End -user satisfaction
- Short time to market
- Quantifiable value
- Guaranteed performance level
- Reduced and controlled costs
- Managed risks
- Good value-for-money
- Flexibility

All-in-one

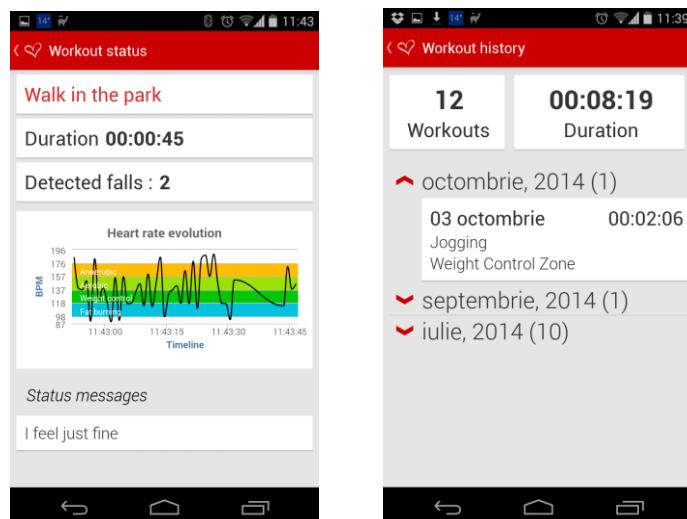
User-friendly. There are only three steps to start using the application:

1. Start the app and log-in
2. Set the emergency message delay
3. Choose a workout

Status messages. During the workout, the user has the possibility to write and save status messages. These messages will be saved on the Portal, for history purposes.

Looks after your heart. When the value of the Heart Rate is below or above the minimum or maximum threshold, or a fall was detected, a message appears on the screen. Yet in case of an error (sensor broken or detached) there is enough time to cancel the sending message.

Saves vital data. A synchronization service is responsible with uploading all workout related data whenever an Internet connection is present. Data generated on the smartphone and/or messages introduced by the user are automatically saved on the portal. Further on they can be accessed and extracted any time for analysis by a specialist if the patient chooses to.



An archive at hand. History of workouts can be checked at all times on the smartphone.

Further usability

The Heart Rate Scenario application has already been tested on elder persons.

The Heart Rate application (and wearable technology in general) can be successfully used in clinics for heart health monitoring, assisted living, gyms.



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