Software Engineering 2

TrackMe

Implementation and **T**esting **D**ocument

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1 Introduction

1.1 Purpose and Scope

1.2 Definitions, Acronyms, Abbreviations

1.2.1 Definitions

- **Framework**: is an abstraction in which software providing generic functionality can be selectively changed by additional user-written code.
- **Individual**:
- **Third party**:
- **User**:

1.2.2 Acronyms

DBMS	Data Base Management System
HTTP	Hyper Text Transfer Protocol
HTTPS	Hyper Text Transfer Protocol Secure
API	Application Program Interface
REST	REpresentational State Transfer
MVC	Model View Controller
JSON	JavaScript Object Notation

1.3 Reference Documents

- Design document
- RASD document
- Project assignment

1.4 Overview

The rest of the document is organized in this way:

- **Implemented requirements:** explains which functional requirements outlined in the RASD are accomplished, and how they are performed.
- **Adopted frameworks:** provides reasons about the implementation decisions taken in order to develop the application.

- **Source code structure:** explains and motivates how the source code is structured both in the front end and in the back end.
- **Testing:** provides the main testing cases applied to the the application

2 Implemented requirements

In this section we describe the implemented functionalities with reference to the requirements outlined in the RASD document.
The requirement with their reference number green are the ones available in the current implementation, the others are in red.

2.1 Third Party Registration

- [R.15] Two different users cannot have the same username.
- [R.16] The system must allow the third party to register to the application, by specifying its VAT registration number and a password.

Database

The database stores the User information and credentials inside the table denominated 'users'.
Passwords are stored as salted hashes for security purposes.

Back-end

Front-end

The homepage of the client application for a Guest contains a registration section showing a form to fill with registration information. The client application validates the information, performs the request to the server and shows the response.

2.2 Individual Registration

- [R.12] The individual must provide their personal data to the application during the registration process, SSN (or fiscal code) included.
- [R.13] The system must allow the individual to register to the application by selecting a username and a password.
- [R.15] Two different users cannot have the same username.

Database

The database stores the User information and credentials inside the table denominated 'users'.
Passwords are stored as salted hashes for security purposes.

Back-end

Front-end

The homepage of the client application for a Guest contains a registration section showing a form to fill with registration information. The client application validates the information, performs the request to the server and shows the response.

2.3 Third Party Login

- [R.17] The system must allow the third party to log in to the application by providing the combination of a VAT registration number and a password that match an account.

Database

Back-end

Front-end

The homepage of the application contains (if the User is not logged in) a login form. The client application validates the information, performs the request to the server and shows the response.

2.4 Individual Login

- [R.14] The system must allow the individual to log in to the application by providing the combination of a username and a password that matches an account.

Database

Back-end

Front-end

The homepage of the application contains (if the User is not logged in) a login form. The client application validates the information, performs the request to the server and shows the response.

2.5 Individual Data Manager

Database

Back-end

Front-end

2.6 Individual Notifications

Database

Back-end

Front-end

2.7 Individual Settings Management

- [R.32] The system must allow the individual to change his/her password.

Database

Back-end

Front-end

2.8 Individual SOS Call

Front-end

2.9 Third Party Notifications

Database

Back-end

Front-end

2.10 Third Party Settings Management

- [R.33] The system must allow the Third party to change its password.

Database

Back-end

Front-end

2.11 Third Party Individual Request

Database

Back-end

Front-end

2.12 Third Party Anonymous Request

Database

Back-end

Front-end

3 Adopted Frameworks

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4 Source Code Structure

4.1 Back End

4.2 Front End

5 Testing

6 Installation Instructions