

# Requirements Document

Medical ID

version 7.0

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Team: Medical ID

Team website: <https://medid.herokuapp.com/>

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# Introduction

The Medical ID is a service available on the web which enables the users to enter personal information that can be useful for medical staff in case of an accident or emergency. This kind of information involves among other things name, age, blood type, insurance details and emergency contacts. If the user chooses to create an account, the service should provide the user with a credit card sized document, containing the most crucial pieces of information along with a QR-code to scan for accessing the full version of the medical data. If the user does not want to register himself, he is able to print a document containing the details he enters, without the website storing this information.

Since this information is of sensitive nature, it should be accessible only to people holding the Medical ID-card and the user itself. The goal of the product is to increase the personal safety and aid medical staff in cases of (severe) accidents.



Image 1: Prototype of the Medical ID-card

## Medical ID

Matt

Generated on 21-03-2017



Name	Matt
Nationality	English
Blood type	A-
Allergies	None
Insurance	ABC co.
Insurance No.	123456789

Image 2: Prototype of the Medical ID-document

## **Target Users**

The site is primarily targeted at those who often go away on vacation to foreign countries. If they have a serious accident abroad, and they or their family members are unable to give their vital information to doctors, it can make treating them extremely difficult, made worse if the injuries are potentially life-threatening. With this, it means hospital staff, or passers-by who find them can easily and quickly find their medical information.

Of course, it is just as useful for everybody going about their daily business. It's impossible to tell when you might have a medical emergency, so having this card/document on your person at all times can potentially save your life if something were to happen to you.

## **Major Features**

1. Entering website, choice between logging in to a personal profile or continuing in a guest session
2. Create personal account on website
3. Access personal profile via personal account
4. Enter information to personal account on website
5. Enter information to website as a guest user
6. Generate Medical ID-document based on profile (personal profile or guest session)
7. Generate Medical ID-card based on profile (personal profile or guest session)
8. Edit information stored to a personal profile
9. Display information based on scanned Medical ID-card
10. Display information based on code from Medical ID-card
11. Download created Medical ID-document and Medical ID-card
12. Customize options of information to add to profile
13. Deleting account
14. The pages of the website contains explanatory fields
15. Have a live representation when entering fields for the Medical ID-card or document.
16. Secure encryption of data on the server
17. Password recovery

## **Critical**

5. Enter information to website as a guest user
  - Without needing to log into the site, a user will be able to access a portion of the site to create a document with inputted information instantly. This information will not be stored on the system, and if the user leaves the site and re-enters, they will need to re-enter the information. They will also not be able to have a personal profile for people to access.

6. Generate Medical ID-document based on profile (personal profile or guest session)
  - A user should be able to generate and download a (pdf) document containing the information they have entered about themselves (name, date of birth, nationality, address) and their medical details (blood-type, allergies, medicines, insurance). The user should be able to select what data they have entered should be in the document.
7. Generate Medical ID-card based on profile (personal profile or guest session)
  - A user should be able to generate and download a card-sized (pdf) document containing information they have entered about themselves (e.g.: name, date of birth, nationality, address etc.) and their medical details (e.g.: blood-type, allergies, medicines, insurance, one or more emergency contacts etc.). If the user is logged in with an account, only the crucial information is put on the frontside of the card, but there will be a QR-code as well as code/link to their full online profile on the backside of the card.

If the user is using a guest session, all information will be put on the card; there will not be a QR-code or any other type of code on the backside of the card, as the user does not have a profile to direct to.
11. Download created Medical ID-document and Medical ID-card
  - The generated documents should be downloadable and in the case of the Medical ID-card, after printed be easily cut, folded and pasted together.
16. Secure encryption of data on the server
  - The data should be encrypted, such that no one (not even the site admin) can view the data in the database. It should only become available to the user when they login to the site.

## Important

1. Entering website, choice between logging in to a personal profile or continuing in a guest session
  - When entering the website in a modern and up-to-date browser, the guest will have at least two possibilities: A big button to use the guest session version of the Medical-ID program that functions offline, or proceed to log-in or sign-up for a personal account. There should be a disclaimer that if the user decides to use the guest session their information WILL NOT be stored.
2. Create personal account on website
  - The user will be able to sign-up for the Medical-ID website as conveniently as possible, at least choosing a username and password. There should be a message explaining the advantages of signing up for a personal account as well as a disclaimer that their information WILL be stored, but WILL NOT be used in other ways than displaying their profile (and that their information will not be passed on to other parties).
3. Access personal profile via personal account
  - The user will be able to log in and have access to his/her personal profile.
4. Enter information to personal account on website

- The user will be able to access a personal account on the website and enter and store their information into the system. This information can be re-accessed when the user is logged in.
8. Edit information stored to a personal profile
    - Once logged in, the user will be able to edit the data on his/her personal profile (add new information, remove existing information, modify existing information).
  9. Display information based on scanned Medical ID-card
    - This means that there is a QR code on the backside of the medical ID-card, which when scanned gives the link to the profile online where there is extra information about the person.
  10. Display information based on code from Medical ID-card
    - In case the person does not know how to scan a QR code, or a QR code scanner is not available. Then there is an option of typing in the profile number and a code that is unique to the medical ID on the website to get access to the profile of the corresponding person.
  12. Customize options of information to add to profile
    - The user should be able to add custom fields for additional information they would like to add to their database. There should be an option of changing the order of the fields. Preferably this should be done using drag-and-drop.
  13. Deleting account
    - A registered user has the possibility of deleting his own personal account upon which all data stored to this account also will be deleted from the database.
  14. The pages of the website contains explanatory fields
    - The user is guided through the pages of the website with fields containing recommendations and information about the functionality of the application and steps to be undertaken.
  17. Password recovery
    - A registered user can request to send an email to the email address they have registered their account with to reset their password and create a new one.

## Useful

15. Have a live representation when entering fields for the Medical ID-card or document.
  - When the user is entering information he/she has a clear indication of what will and won't be on his/her card and document.

## Won't Do

- Possibility of logging in via third-party services such as Google/Facebook
  - This feature involves the possibility of linking your profile to and logging in via a popular third party service, such as a Google or Facebook account, in order to not have to create an account especially for the Medical ID website. In practice

this could e.g. mean a hyperlink on the start page of the website, offering the login options “Using your Medical ID account or quickly via your Google account”.

- Make an app-version of Medical ID.
- Deploying the website before having enough functionality (points 1-14 in Major Features section) and necessary security implementations (primarily points 1-3 in Non-functional Requirements).
- For now we will not focus on scalability, but rather on functionality and security.

## **Non-functional Requirements**

### **1. Security:**

#### 1.1 Secure connection (https):

Due to the private nature of the information stored to a Medical ID profile, the connection between client and server should be secured via https connection.

#### 1.2 Secure storage of user data:

The information stored to a Medical ID profile is inherently of sensitive nature and the application should store this information securely. The information of an individual user should be accessible only by the user, and people in possession of the user’s Medical ID card. System administrators should *not* be able to access the database and view the information.

#### 1.3 Backup:

The information in the database should be recoverable in case of data loss such that the product does not become unusable in case of a server crash.

### **2. Availability:**

#### 2.1 Should function on the following browsers:

Chrome 55+, Firefox 50+, IE11, Edge, and Safari 10.

### **3. Usability:**

#### 3.1 Response time:

The response time of the application should be sufficiently quick to serve the needs of stakeholders in case of a situation where the Medical ID profile data needs to be accessed rapidly. This might primarily be linked to the connection of the server.

#### 3.2 Document/Card creation time:

The documents should be created within a reasonable amount of time (say 1-5

seconds). The client is not in a situation in which the document should be created rapidly (like when accessing the profile), so the priority should go to the server connection.

4. **Responsiveness:**

4.1 Responsive on mobile devices:

The application (website) should work properly on mobile devices. The layout of the website and the document/card creator should scale with the device.

5. **User-friendliness:**

5.1 Disclaimer:

The application should be clear to the user about what will be saved and when.

5.2 Simplicity:

The document interface should be simple to understand and easy to use.

6. **Scalability:** (opt/SE2)

6.1 Database:

For the minimum viable product the focus will not be on the scalability of the database. When actually launching the website the database should be able to store information of a vast amount of users.

7. **Adaptability:** (opt/SE2)

7.1 Language:

Adapting the language to the language of the user, i.e. being able to write the information in your document in another language, as long as it is roman script.

## To-do List

Req #	Description	Done?
1.	Entering website, choice between logging in to a personal profile or continuing in a guest session	✓
2.	Create personal account on website	✓
3.	Access personal profile via personal account	✓
4.	Enter information to personal account on website	✓
5.	Enter information to website as a guest user	✓
6.	Generate Medical ID-document based on profile (personal profile or guest session)	✓
7.	Generate Medical ID-card based on profile (personal profile or guest session)	✓
8.	Edit information stored to a personal profile	✓
9.	Display information based on scanned Medical ID-card	✓
10.	Display information based on code from Medical ID-card	✓
11.	Download created Medical ID-document and Medical ID-card	✓
12.	Customize options of information to add to profile	✓
13.	Deleting account	✓
14.	The pages of the website contains explanatory fields	✓
15.	Have a live representation when entering fields for the Medical ID-card or document.	✓
16.	Secure encryption of data on the server	✓
17.	Password recovery	✓



# Definitions

Keywords and possibly ambiguous terms and are defined below.

**Medical ID-document:** The full PDF version of all the information entered to the profile.

**Medical ID-card:** The credit card sized summary document containing the most relevant information for medical emergencies.

**Personal profile:** The account registered in the database containing all information entered by the user

**Guest session:** User does not log in. Receives a temporary profile. Information is not persistently stored, but the user can download the Medical ID-document or Medical ID-card.

## Change Log

Who	When	Which section	What
All	21-02-17	All	Decide on what the Major Features are and divide them over the different urgencies. Define the definitions.
All	21-02-17- 27-02-17	Major Features, Non-functional Reqs	Specify (explain, elaborate) requirement points 1-12 of Major Features, and 1-2 of Non-functional Requirements.
Sofie	07-03-17	Introduction, Definitions, Non-functional Reqs, Won't do	Introducing the Introduction section and including Image 1. Adding explanation to Definitions section. Adding non-functional requirements 5-6. Adding warning about deploying website too early.
Elisa	07-03-17	Major Features, Non-functional Reqs	Altering the specifications of the requirement points 1,2,6,7,10. Add requirement point 15, put it under Useful, and specify it. Adding features which we will not do (Won't Do). Adding non-functional requirement 3, altering non-functional requirement 2.
Matt & Peter	21-03-17	Introduction Critical Reqs Non-functional Reqs	Added image of document prototype. Moved encryption from non-functional requirements to critical requirements.
Elisa	10-04-17	Cover Change log	Added website to cover. Moved Change Log to back of document.

		Non-functional Reqs	Categorized already existing NFRs, added NFRs: 3.2, 4.1, 5.1, 5.2, 6.1, 7.2.
Sofie	12-04-17	Non-functional Reqs	Minor modifications.
Elisa	14-05-17	Functional Reqs	Added requirement point 17, put it under Important, and specify it. Altered specification of requirement point 12. Altered NFR 1.2. Added section 'To-do List'.
Matt	29-05-17	Target Users Major features	Added target users section Fixed typo in major features
Elisa	08-06-17	Target Users	Minor modifications.
Peter	12-16-17	NFR, useful features	Minor modifications