PMS Requirements Specification

CEN302 – Software Engineering

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1. Executive Summary

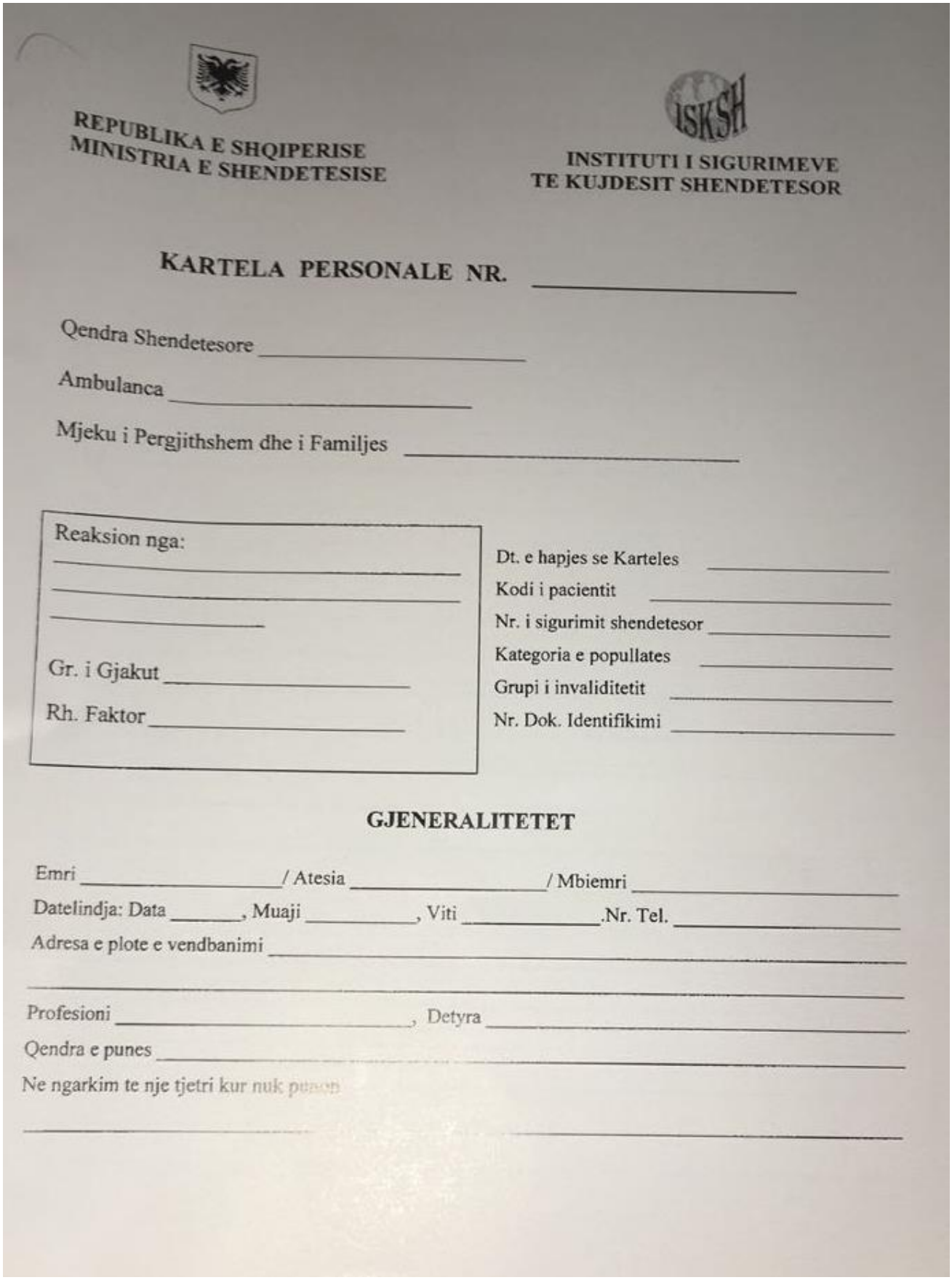
1.1 Project Overview

Nowadays, technology is developing really fast and it is being implemented in many areas of our lives. One of the main fields that is trying to incorporate technology, is the health field. A detailed and accurate anamnesis of the patient's health conditions is often the key to curing and healing him. However, keeping this detailed information for every patient and then analyzing this handwritten information whenever it is needed is usually a difficult and slow process.

Technology in this field has been developing continuously. Today, we can check our health parameters with just the help of a smartphone (glucometer – to measure glucose level in blood, otoscope – ear examination instrument, sphygmometer – to measure blood pressure, Doppler ultrasound machine – for blood vessel control etc.). There have also been developed some watches, smart devices, which helps you to measure the pulse, oxygen in blood, breathing etc. These watches contain software that allows them to communicate in real-time with devices that periodically measure some parameters that cause strokes and warns the patient before it happens.

What we described earlier is a huge revolution of technology in health field; however the massive use of these technologies has not yet been implemented. Today, it is doctor's responsibility to examine and keep track of patient's detailed records. In developed countries, health centers have their own computerized systems that store and process information quickly and correctly. This removes administrative obligation from doctors and nurses, who are currently dealing with, here in Albania. It would also help to improve the performance of this existing medical system.

In Albanian polyclinics, the patient's information is stored in hardcopy files. These files are eternal and are physically transferred when the patient changes his polyclinic. Below is an example of the actual file format that stores the information for a patient.



REPUBLIKA E SHQIPERISE
MINISTRIA E SHENDETESISE

ISKSH

INSTITUTI I SIGURIMEVE
TE KUJDESIT SHENDETESOR

KARTELA PERSONALE NR. _____

Qendra Shendetesore _____

Ambulanca _____

Mjeku i Pergjithshem dhe i Familjes _____

Reaksion nga:
_____
_____
_____

Gr. i Gjakut _____

Rh. Faktor _____

Dt. e hapjes se Karteles _____
Kodi i pacientit _____
Nr. i sigurimit shendetesor _____
Kategoria e popullates _____
Grupi i invaliditetit _____
Nr. Dok. Identifikimi _____

GJENERALITETET

Emri _____/ Atesia _____/ Mbiemri _____

Datelindja: Data _____, Muaji _____, Viti _____.Nr. Tel. _____

Adresa e plote e vendbanimi _____

_____

Profesioni _____, Detyra _____

Qendra e punes _____

Ne ngarkim te nje tjetri kur nuk punon

_____ _____

Figure 1 The Patient Information File Format Page 1

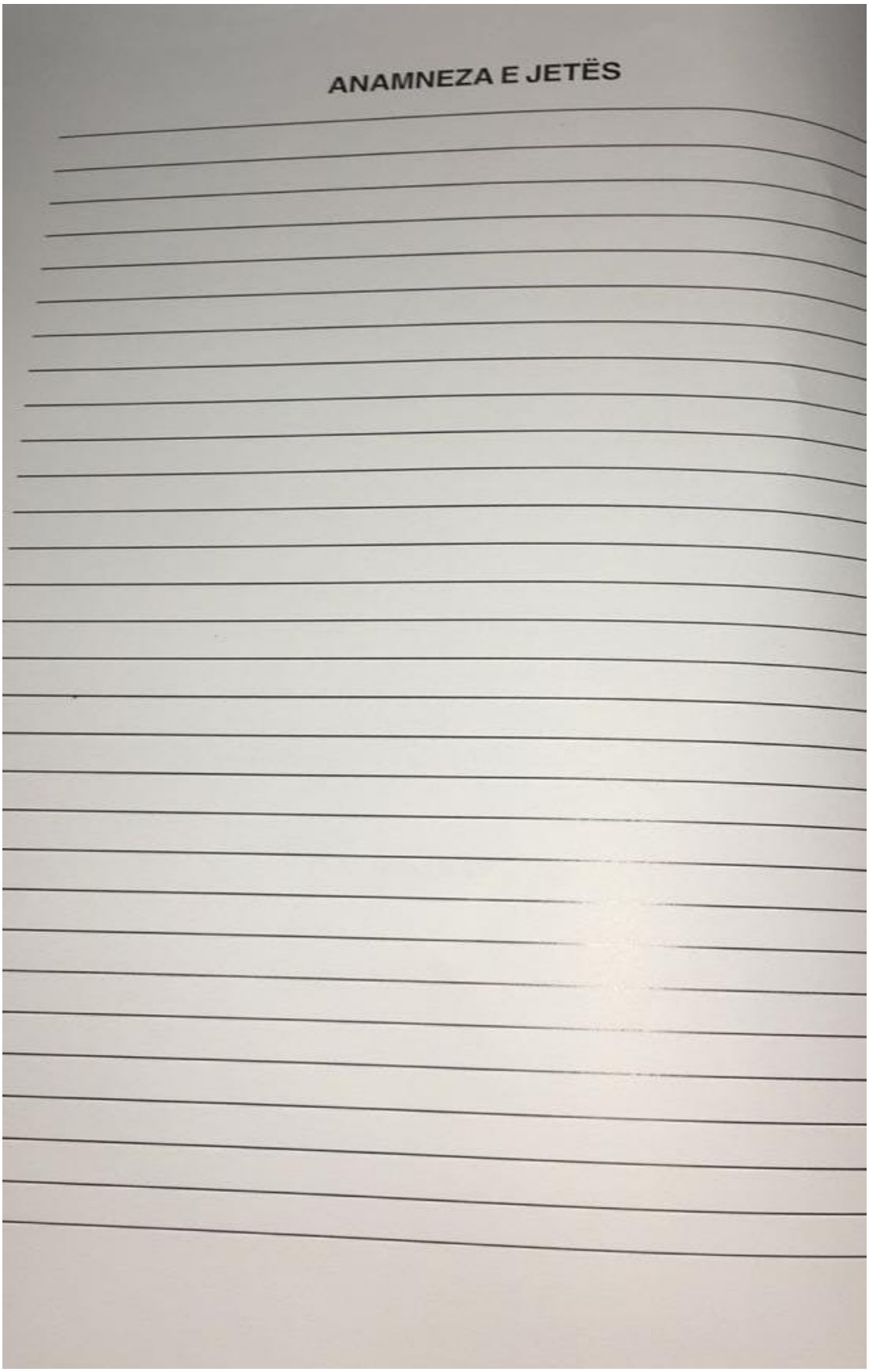
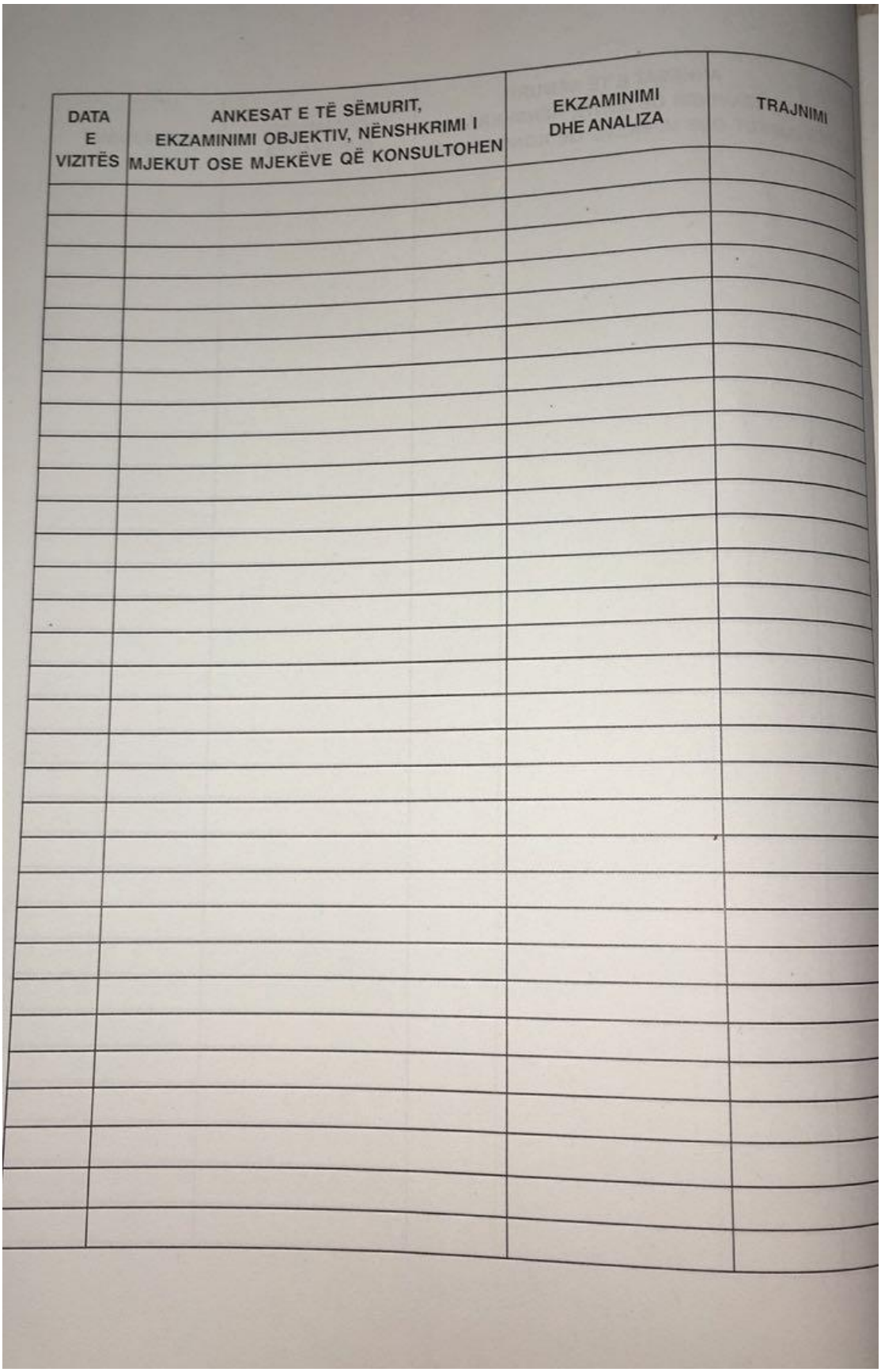


Figure 2 The Patient Information File Format Page 2



DATA E VIZITËS	ANKESAT E TË SËMURIT, EKZAMINIMI OBJEKTIV, NËNSHKRIMI I MJEKUT OSE MJEKËVE QË KONSULTOHEN	EKZAMINIMI DHE ANALIZA	TRAJNIMI

Figure 3 The Patient Information File Format Page 3

1.2 Purpose and Scope of this Specification

The software's purpose is to facilitate the operations of a polyclinic in Albania by providing a web application that will make the documentation of the patient's records easier, by digitalizing them and removing the hardcopy files.

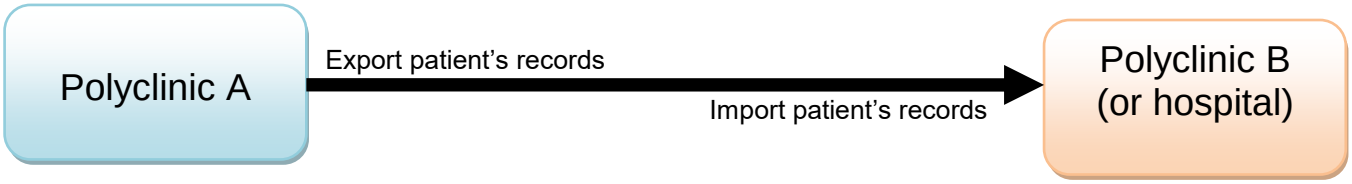
The web application should offer to the patient the possibility to access at any time his electronic medical files. It should make the process of medical examination easier for the doctor and it should also offer a solution for the administrative procedures, such as: adding a new patient, removing a patient, changing a patient's record etc. This should be done by the receptionist or an authorized nurse. The system should be transparent in order to avoid malicious operations, but at the same time it should be trustworthy because it is tightly connected with the patient's life and his private information.

This documentation is written for all the users of the software. It will give detailed information about how it works and its facilities.

2. Product/Service Description

2.1 Product Context

Our software is directly related to the "Polyclinic Nr.9, Tiranë". It is conceived to be an independent system that will be available to three major genres of users that fall into one of these categories: doctors, patients or receptionists (or nurse). There is only one specific case where this system has to corporate with other polyclinics or hospitals. When a patient is moving from one polyclinic to another, it should be able to export a file with patient's records and send it to the other polyclinic, which can easily import that information. The same thing happens when the patient goes to a hospital.



2.2 User Characteristics

There are three types of users that will interact with the system:

1. Patient:
    - Can look at the map of polyclinics in Tirana
    - Can log in his account
    - Can read his personal information
    - Can look at the medical visits created by the doctor
    - Can contact his doctor by sending an email
    - Can change his account password
    - Can log out

2. Doctor:
    - Can look at the map of polyclinics in Tirana
    - Can log in his account
    - Can fill the form for the current examination
    - Can look at the current patient's records.
    - Can change his account password
    - Can log out
3. Receptionist:
    - Can look at the map of polyclinics in Tirana
    - Can log in his account
    - Can add a new patient
    - Can delete an existing patient
    - Can export the files of a patient
    - Can change personal information of a patient
    - Call create a visit and allow the doctor to fill the form for the current examination
    - Can search for a patient
    - Can search for a doctor
    - Can add a new doctor
    - Can delete an existing doctor
    - Can change personal information of a doctor
    - Can change his account password
    - Can log out

2.3 Assumptions

It is assumed that some actions performed behind the scenes are performed regularly according to law.

It is assumed that the profile of the receptionist is created initially by the administrator of the system and nobody else can add, delete or change information of the receptionist. If the receptionist changes, then the administrator of the system has to be contacted.

It is assumed that while adding a new patient or changing his personal information, the receptionist should verify all the needed documents.

It is assumed that while adding a new doctor or changing his personal information, the receptionist should verify all the needed documents.

It is assumed that while filling the form for the current examination, the doctor is the only responsible person of what it is written in that form.

It is assumed that doctors and receptionist will be trained to use this software, in order not to have any misconceptions. As for the users there is no need for training, because their profile is only in read mode.

2.4 Constraints

The project is constrained by the Internet connection. Since it is supposed to be a web application, it is crucial that there is stable Internet connection for the application to function. The internet is needed mainly because the data should be fetched from the database over the Internet. It is also needed for the reCaptcha module and Google Map.

2.5 Dependencies

As we mentioned before, our application is considered to be an independent system. The only dependency is between the doctor and the receptionist. The receptionist should allow the doctor to fill the form for the examination of the current patient otherwise it is not possible to do that.

3. Requirements

3.1 Functional Requirements

The requirement numbering has a scheme – BR_## (BR for Business Requirement).

The following table is a format for requirements.

Req#	Requirement	Comments	Priority	Date	SME Reviewed / Approved
BR_01	The software should have different views for different user levels.	The view for patient, receptionist and doctor will be different.			
BR_02	A reCaptcha should be used for security issues while trying to log in.	To verify that you are not a robot, you should fill the reCaptcha.			
BR_03	The user accounts have to be secured by passwords.	Ethics will be maintained by hashing the passwords before saving them in database.			
BR_04	After the user has taken the password he/she can edit it, but nonetheless he/she can’t edit the username.	Editing usernames is not available since it is decided that the format that will be used will be the same for everybody.			

BR_05	Editing the information of a patient or doctor is only available for the receptionist.	The receptionist is responsible for editing the information of a patient or a doctor.			
BR_06	The receptionist can create, delete or change information for a specific user.	CRUD functionalities possessed by the receptionist.			
BR_07	The information entered by the receptionist while creating or changing information about a specific user should be first validated.	It is important that all the information entered is accurate.			
BR_08	The system should be able to generate a XML file with the patient's record, which will be imported by other polyclinics or hospitals.	When a patient changes his polyclinic, his records should be exported from the actual polyclinic and imported by the new one.			
BR_09	The receptionist can search a patient or a doctor.	When logged in as a receptionist, you can search for an existing patient or doctor.			
BR_10	The receptionist should allow the doctor to create a medical visit record.	The doctor can create a medical visit record only if the receptionist has allowed him to do that.			
BR_11	A patient cannot edit his records.	The profile of a patient is in a read view.			
BR_12	A patient can send an email to his doctor.	The patient may want to contact his doctor, so he should be able to send an email to him.			
BR_13	A patient cannot see the profiles of other doctors of the polyclinic.	A patient has only to do with his family's doctor.			

BR_14	Each user can look at the map of polyclinics in Tirana.	All users should be able to look the map of polyclinics in Tirana.			
BR_15	A doctor can write a medical visit record for the current patient, if he is allowed to do so.	The receptionist should allow the doctor to create a medical visit record.			
BR_16	A doctor can see all the records of the current patient.	The doctor may need to analyze the previous examinations of the patient.			
BR_17	A doctor cannot see the records of each patient that is registered in this polyclinic.	The doctor can see only the records of the current patient.			

Table 1 Functional Requirements

3.2 Non-Functional Requirements

3.2.1 User Interface Requirements

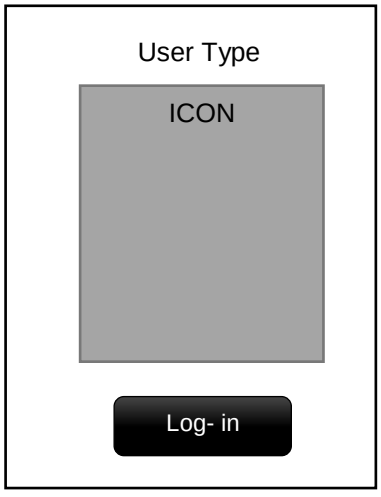
In addition to functions required, describe the characteristics of each interface between the product and its users (e.g., required screen formats/organization, report layouts, menu structures, error and other messages, or function keys).

The User interface could be grouped in 4 main interfaces:

- <u>Log In Interface</u>

  Which will contain:

  - The header bar containing PMS logo, “Polyclinic Nr. 9” and a telephone number
  - Three boxes which the user can choose his/her own user type and log in. Each user can Log in as a Patient, Doctor or Receptionist depending on his/her user type. Each box will contain the User type, an icon and a <Log In> button. As shown on the schema on the right. When the button is pressed the log- in form displays.



  - The log in form which contains fields <Username> and <Password>, a reCaptcha to protect the user and a button <Submit>. When Submit is pressed the information is validated and the respective interface is showed to the user, either Patient / Doctor/ Receptionist or Error Notification indicating a wrong Username or Password.

- <u>Patient Interface</u>

Which will contain:

- The header bar containing PMS logo, “Patient <Name> <Surname>” and a Menu Icon ☰, which when pressed shows all available menus.
- The menu Icon, showing all the menus the user can access after logging in as a patient: Map, Profile, Records, Contact Doctor, Change Password, Log out
- The “**Map**” Menu will show a detailed map of all the polyclinics in Tirana.
- The “**Profile**” Menu will allow the user to see all his personal information.
- The “**Change Password**” Menu will display a simple form which contains fields <Current Password>, <New Password>, <Retype New Password> and a button <Submit>. When Submit button is pressed the system checks if the Current passwords match then checks if the new password is the same in the both fields, validates the password format (for example: only alphanumeric characters at least one number and one uppercase). If all the validations are correct it displays a message that says “Password was changed successfully” otherwise displays a message with the respective error.
- The “**Records**” Menu will show to the user all the medical visits created by the doctor. The information will be displayed showing the most recent information first. Initially the user only sees some of the main details, but by clicking one of the visits, the user will be able to see a more detailed information about that specific visit, including the prescriptions list, detailed diagnosis etc.
- The “**Contact Doctor**” Menu will allow the user to communicate will his/her doctor via e-mail. The page will provide a simple form containing the sender’s name which will be filled automatically from the user’s personal information, as well as the respective doctor to whom the e-mail will be sent, a text field for the message and a sent button to deliver the email. This menu will be similar to the new e-mail menu in well known pages as www.gmail.com , www.yahoo.com etc.
- The “**Log out**” will terminate the current session and will resent the user to the main page.

- Doctor Interface

Which will contain:

- The header bar containing PMS logo, “Patient <Name> <Surname>” and a Menu Icon ☰, which when pressed shows all available menus.
- The menu Icon, showing all the menus the user can access after logging in as a patient: Map, Profile, Examinations, Change Password, Log out
- The “**Map**” Menu will show a detailed map of all the polyclinics in Tirana.
- The “**Profile**” Menu will allow the user to see all his personal information.
- The “**Change Password**” Menu will display a simple form which contains fields <Current Password>, <New Password>, <Retype New Password> and a button <Submit>. When Submit button is pressed the system checks if the Current passwords match then checks if the new password is the same in the

both fields, validates the password format (for example: only alphanumeric characters at least one number and one uppercase). If all the validations are correct it displays a message that says “Password was changed successfully” otherwise displays a message with the respective error.

- The “**Examinations**” Menu will show a list of the pending examinations created by the receptionist. This list will be in a tabular form and the most recent examinations will be listed first. When clicking one of them the doctor will be able to view full information as well as modify it. When the examination is done the doctor could press the ‘End of examination’ button to indicate the examination is over. The doctor can also see the all the patient information, although he cannot edit it.
- The “**Log out**” will terminate the current session and will resent the user to the main page.

- Receptionist Interface

  Which will contain:

  - The header bar containing PMS logo, “Patient <Name> <Surname>” and a Menu Icon ☰, which when pressed shows all available menus.
  - The menu Icon, showing all the menus the user can access after logging in as a patient: Map, Profile, Examinations, Change Password, Log out
  - The “**Map**” Menu will show a detailed map of all the polyclinics in Tirana.
  - The “**Profile**” Menu will allow the user to see all his personal information.
  - The “**Change Password**” Menu will display a simple form which contains fields <Current Password>, <New Password>, <Retype New Password> and a button <Submit>. When Submit button is pressed the system checks if the Current passwords match then checks if the new password is the same in the both fields, validates the password format (for example: only alphanumeric characters at least one number and one uppercase). If all the validations are correct it displays a message that says “Password was changed successfully” otherwise displays a message with the respective error.
  - The “**Patient’s List”** Menu where the receptions could see a full list of the patients.
  - The “**Doctor’s List”** Menu where the receptions could see a full list of all doctors who currently work on the polyclinic.
  - The “**Add a Patient”** Menu allows the receptionist to create a new user, type patient. He / she will be responsible for filling all the obligatory fields with valid information provided by the patient.
  - The “**Add a Doctor”** Menu allows the receptionist to create a new user, type doctor. He / she will be responsible for filling all the obligatory fields with valid information.

- The "**Search a Patient**" Menu allows the receptionist to search the list of the patients. This menu will also provide filters to make searching easier and faster.
- The "**Search a Doctor**" Menu allows the receptionist to search the list of the doctors. This menu will also provide filters to make searching easier and faster.
- The "**Create a Visit**" Menu will allow the receptionist to create a new visit and prepare it for the doctor. The visit created here will be displayed to the doctor's "Examinations" page in real time.
- The "**Log out**" will terminate the current session and will resent the user to the main page.

3.2.2 Usability

Learnability

- Receptionists and doctors should be able to master using the system within a few hours.
- The patients will not be needing a specific training since the system will be intuitive

Efficiency

- Each operation will be fast and in real time.
- Once the users have learned the system they will be able to perform each operation within minutes.

Memorability

- The system is intuitive hence, it is not a problem if you 'vaguely remember' how to use it.
- If the users return to the design after a period of not using it they will be able to the re-establish proficiency within the first hour.

Errors

- The error rate is lower than the current error rate.
- Each time sensitive data is entered in the system double check procedure is applied where the user confirms the entered data.
- If an error occurs it can be edited and corrected immediately

Satisfaction

- The system is user-friendly and it is very easy to use.

3.2.3 Performance

3.2.3.1 Capacity

Include measurable capacity requirements (e.g., the number of simultaneous users to be supported, the maximum simultaneous user load, per-user memory requirements, expected application throughput)

This application will be developed to cover all the necessities of one polyclinic. The application will work at the same time for the patient, doctor and receptionist. It will work on real time, so every change made will be reflected immediately to the other users (based on their clearance).

Every user will use the same database, therefore if multiple requests are made to the server the requests will form a query slightly delaying the process. To increase the capacity and to lower the amount of times this happens the user will make the changes storing them in his/her computer then they will be sent to the database. This way even if there is a delay it will allow them to continue their job.

3.2.3.2 Availability

The application will be available 24 hours per day, every day.

The application will be available to everyone who owns a pc connected to the internet, therefore any user can access his data anywhere.

The application will be developed such that it will not be forced to encounter downtime since the data used by the users is very sensitive and time-varying.

Scheduled maintenance on the system shall not affect its functionality. In case of any problem unscheduled maintenance of the application shall not allow the system to be down for more than 1 hour.

3.2.3.3 Latency

There are no specific latency requirements for this application.

3.2.4 Manageability/Maintainability

3.2.4.1 Monitoring

The system will be built to be secure and reliable. Logs will be used to keep track of the system, such that in case of any mal-function it will be easier to detect the problem and to fix it. Periodic reports shall be generated by the system maintenance group. These reports shall be used not only to detect problems but also to find possible ways to improve the system.

3.2.4.2 Maintenance

The system will be developed using MySQL for the database and APACHE server. Therefore, these two platforms will be used to maintain the application.

The application will be developed in modules so it can be easily extended. New modules can be easily added to the application anytime.

In case of system malfunction, a system restart should help. Anyhow every problem is different, so to avoid downtime a backup should be provided. Using logs and text files no information will be lost.

3.2.4.3 Operations

Some of the operations required by the users are:

- The application will be available 24/7, although the busiest time frames shall be 8 AM to 11 AM and from 4 PM to 7 PM. These time frames are based on the flux of the people requesting visits, thus it is not fixed and it varies from day to day.
- The users shall be able to log in and to access their information anytime.
- The information entered to the system shall be secure

- The information entered to the system shall be accessed only by the people who really need access.
- Create, Read, Update and Delete users
- Create, Read, Update and Delete examinations
- Create periodic reports

3.2.5 Security

3.2.5.1 Protection

To protect the system from malicious or accidental access, modification, disclosure, destruction, or misuse we will take the following precautions.

- Encrypt the most sensitive information such as passwords using hashing method to protect privacy.
- We will keep tract of the activity of each user, such that in case of error the user will be held responsible.
- The receptionist is responsible for the personal data authenticity of the user he/she enters; hence the system is not responsible.
- The system will validate passwords, and each data for special characters and other specific conditions before inserting in the database.
- Each patient will see only the information related to him/her.
- Each doctor will only see the data of the patients he/she is currently examinating.

3.2.5.2 Authorization and Authentication

The Authorization and Authentication factors:

- The user authentication will be using username, password and reCaptcha.
- Authorization will be based on the user type. Each user will access only the respective information.
- Using sessions for the currently logged user.
- Using Cookies and PubCookie tool.

3.2.6 Standards Compliance

Our application is a new system developed to digitalize the filing system in polyclinics. Although the system is a new concept it shall be bounded by some existing standards. Despite the view the personal information of the user must have all the fields that are present in the current file format of the polyclinic. The same obligation is valid for the examination page. Moreover the system shall generate all the periodic reports requested by the ministry as well as the polyclinic itself.

3.2.7 Portability

- The system will be web-based; therefore, it will operate the same regardless of the operating system.
- The system will be programmed using universal languages like PHP

3.2.8 Other Non-Functional Requirements

Please provide all necessary non-functional requirements, similar to the requirements explained in the lesson slides or in the textbook.

3.3 Domain Requirements

Everything related to the domain that might be needed in the project shall be mentioned in here. Sometimes the domain Requirements might be thought as part of either functional or non-functional requirements.

4. User Scenarios/Use Cases

Provide a summary of the major functions that the product will perform. Organize the functions to be understandable to the customer or a first time reader. Include use cases and business scenarios, or provide a link to a separate document (or documents). A business scenario:

- Describes a significant business need
- Identifies, documents, and ranks the problem that is driving the scenario
- Describes the business and technical environment that will resolve the problem
- States the desired objectives
- Shows the “Actors” and where they fit in the business model
- Is specific, and measurable, and uses clear metrics for success

In here you may define the written user scenarios tested in the UCED Application given to you.

APPENDIX

Appendix A. Definitions, Acronyms, and Abbreviations

Define all terms, acronyms, and abbreviations used in this document.

Appendix B. References

List all the documents and other materials referenced in this document.

Appendix C. Requirements Traceability Matrix

The following trace matrix examples show one possible use of naming standards for deliverables (FunctionalArea-DocType-NN). The number has no other meaning than to keep the documents unique. For example, the Bargaining Unit Assignment Process Flow would be BUA-PF-01.

For example (1):

Business Requirement	Area	Deliverables	Status
BR_LR_01 The system should validate the relationship between Bargaining Unit/Location and Job Class.---Comments: Business Process = "Assigning a Bargaining Unit to an Appointment" (Priority 1)	BUA	BUA-CD-01 Assign BU Conceptual Design	Accepted
		BUA-PF-01 Derive Bargaining Unit-Process Flow Diagram	Accepted
		BUA-PF-01 Derive Bargaining Unit-Process Flow Diagram	Accepted
BR_LR_09 The system should provide the capability for the Labor Relations Office to maintain the job class/union relationship.---Comments: Business Process = "Maintenance" (Priority 1)	BUA	BUA-CD-01 Assign BU Conceptual Design	Accepted
		BUA-PF-02 BU Assignment Rules Maint Process Flow Diagram	ReadyForReview

For example (2):

BizReqID	Pri	Major Area	DevTstItems DelivID	Deliv Name	Status
BR_LR_01	1	BUA	BUA-CD-01	Assign BU Conceptual Design	Accepted
BR_LR_01	1	BUA	BUA-DS-02	Bargaining Unit Assignment DB Modification Description	Accepted
BR_LR_01	1	BUA	BUA-PF-01	Derive Bargaining Unit-Process Flow Diagram	Accepted
BR_LR_01	1	BUA	BUA-UCD-01	BU Assign LR UseCase Diagram	ReadyForReview
BR_LR_01	1	BUA	BUA-UCT-001	BU Assignment by PC UseCase - Add Appointment and Derive UBU	Reviewed
BR_LR_01	1	BUA	BUA-UCT-002	BU Assignment by PC UseCase - Add Appointment (UBU Not Found)	Reviewed
BR_LR_01	1	BUA	BUA-UCT-006	BU Assignment by PC UseCase - Modify Appointment (Removed UBU)	Reviewed

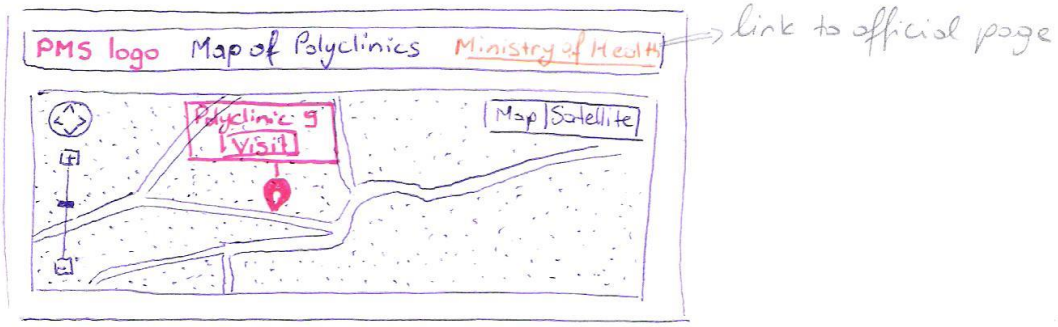
BizReqID	Pri	Major Area	DevTstItems DelivID	Deliv Name	Status
BR_LR_09	1	BUA	BUA-CD-01	Assign BU Conceptual Design	Accepted
BR_LR_09	1	BUA	BUA-DS-02	Bargaining Unit Assignment DB Modification Description	Accepted
BR_LR_09	1	BUA	BUA-PF-02	BU Assignment Rules Maint Process Flow Diagram	Accepted
BR_LR_09	1	BUA	BUA-UCD-03	BU Assign Rules Maint UseCase Diagram	Reviewed
BR_LR_09	1	BUA	BUA-UCT-045	BU Assignment Rules Maint: Successfully Add New Assignment Rule	Reviewed
BR_LR_09	1	BUA	BUA-UCT-051	BU Assignment Rules MaintUseCase: Modify Rule	Reviewed
BR_LR_09	1	BUA	BUA-UCT-053	BU Assignment Rules MaintUseCase - Review Assignment Rules	Reviewed
BR_LR_09	1	BUA	BUA-UCT-057	BU Assignment Rules MaintUseCase: Inactivate Last Rule for a BU	Reviewed
BR_LR_09	1	BUA	BUA-UI-02	BU AssignRules Maint UI Mockups	ReadyForReview
BR_LR_09	1	BUA	BUA-TC-021	BU Assignment Rules Maint TestCase: Add New Rule (Associated Job Class Does Not Exist) - Success	ReadyForReview
BR_LR_09	1	BUA	BUA-TC-027	BU Assignment Rules Maint TestCase: Modify Rule - Success	ReadyForReview
BR_LR_09	1	BUA	BUA-TC-035	BU Assignment Rules Maint TestCase: Add New Rule (Associated Job Class Does Not Exist) - Error Condition	ReadyForReview
BR_LR_09	1	BUA	BUA-TC-049	BU Assignment Rules Maint TestCase: Modify Rule - Error Condition	ReadyForReview

For example (3):

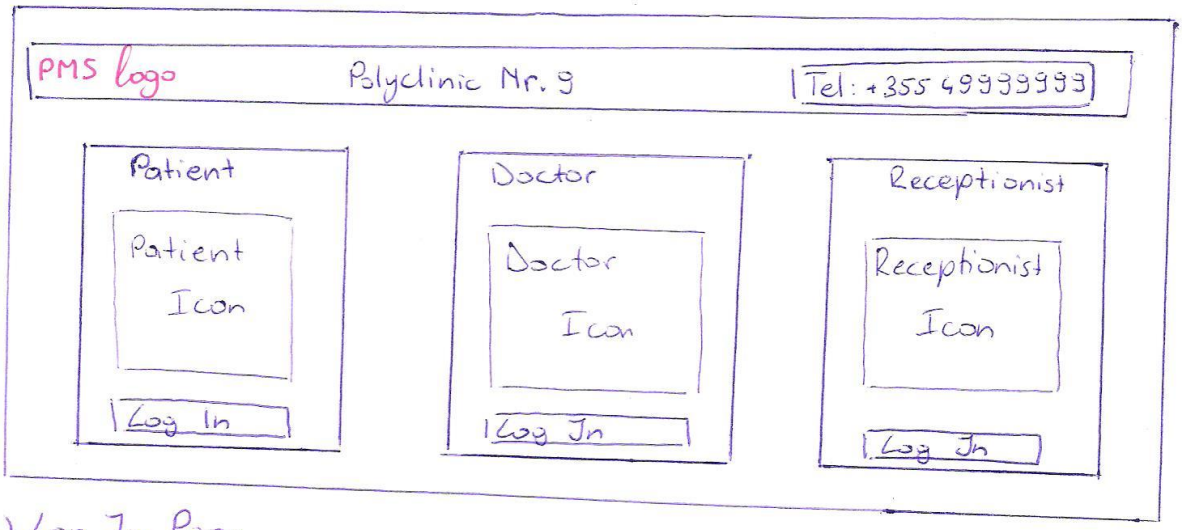
BizReqID	CD01	CD02	CD03	CD04	UI01	UI02	UCT01	UCT02	UCT03	TC01	TC02	TC03	TC04
BR_LR_01			X		X		X			X		X	
BR_LR_09	X			X		X			X		X		X
BR_LR_10	X			X					X		X		
BR_LR_11		X											

Appendix D. Sketches

1) Initial Page

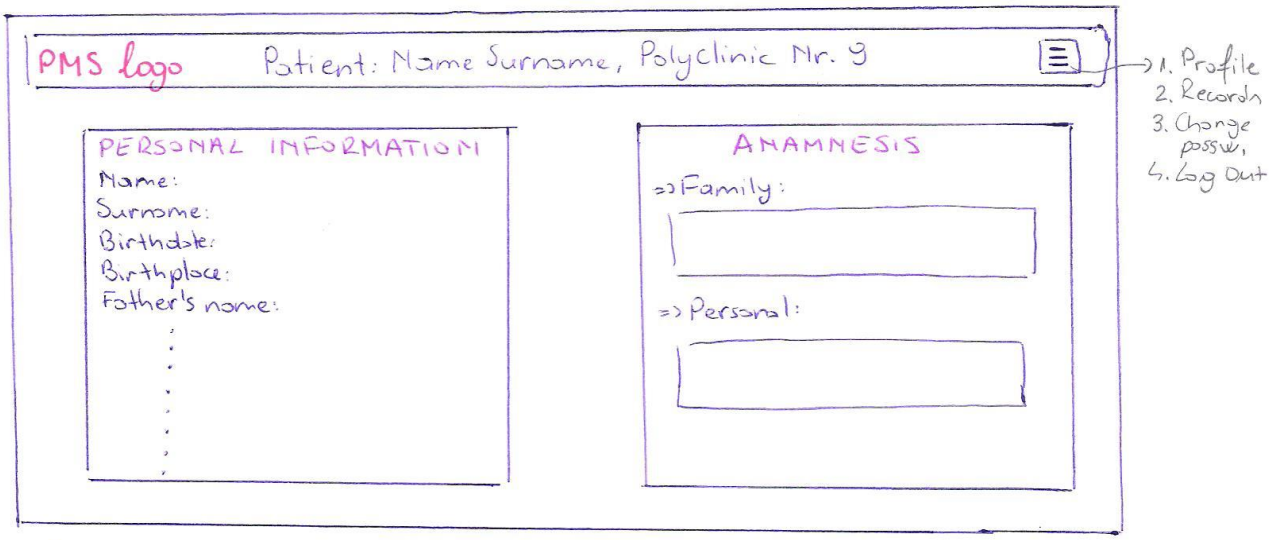


2) Choose User Type

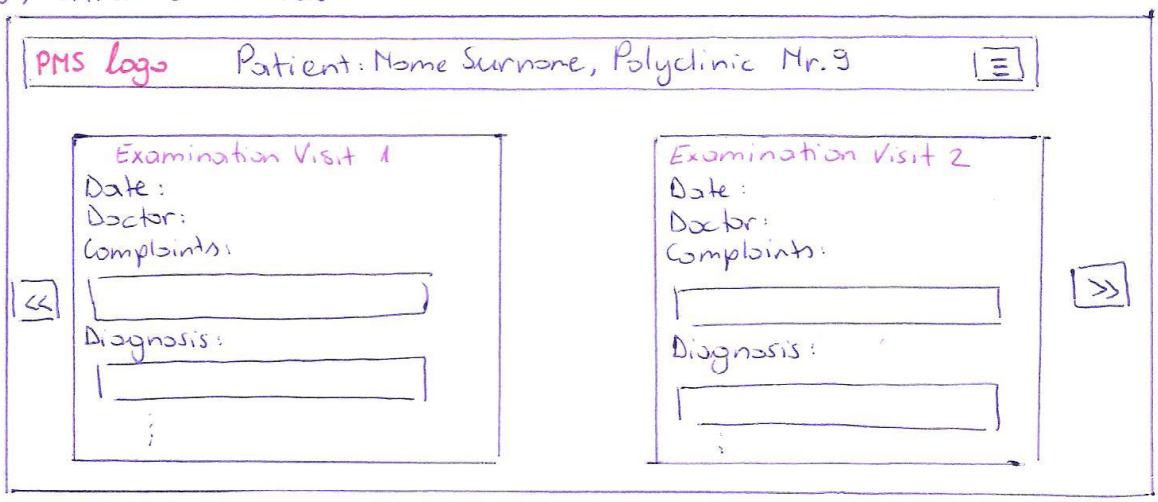


3) Log In Page

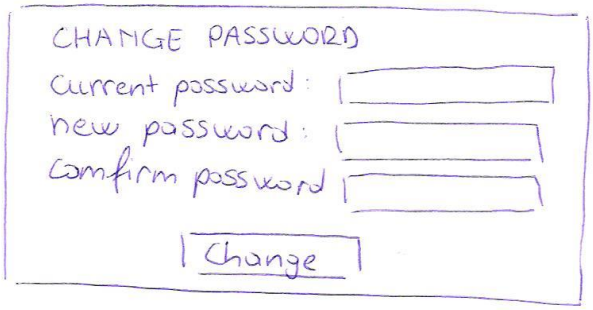
4) Patient's profile



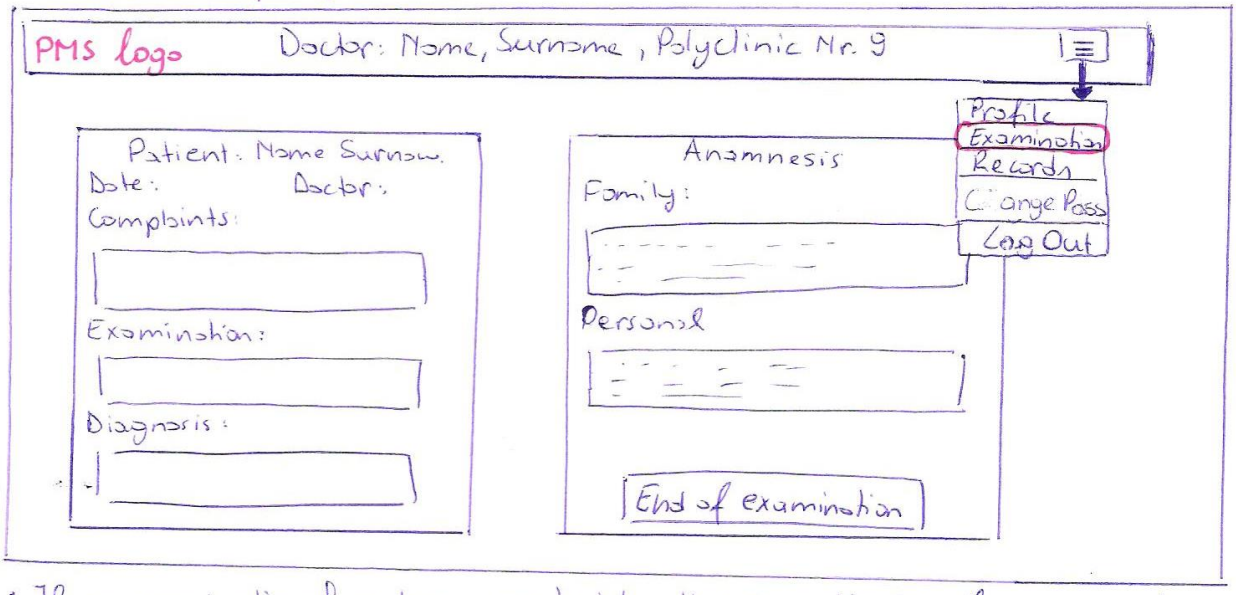
5) Patient's records



6) Change Password



7) Doctor's profile

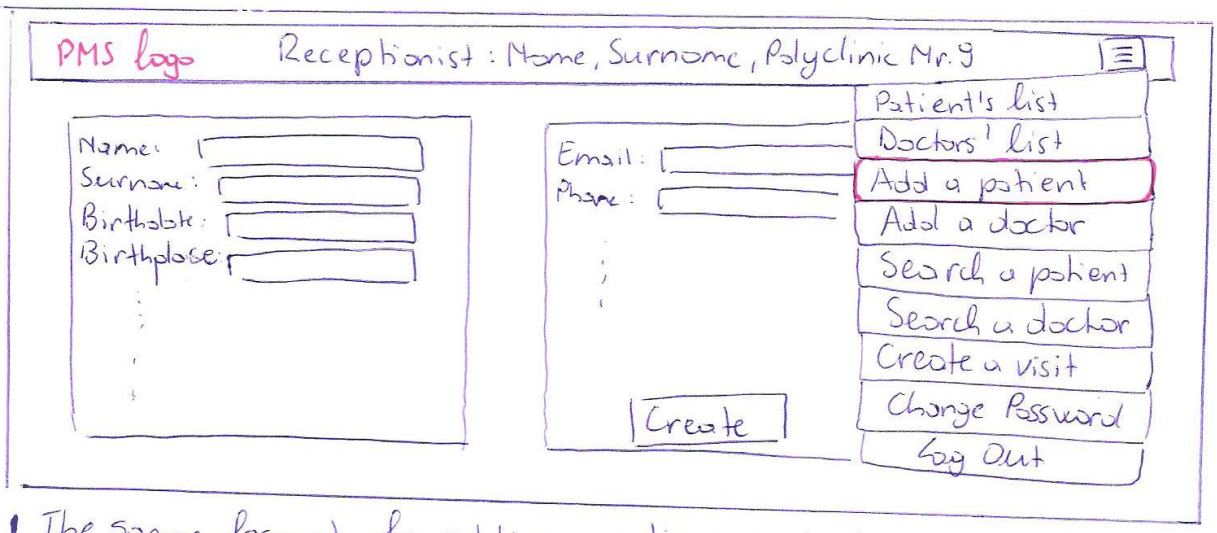


! If no examination has been created by the receptianist, this page will be showing only a message.

- Profile : shows personal information of doctor
- Records : the same on Patient's records page
- Change Password : the same on described before.

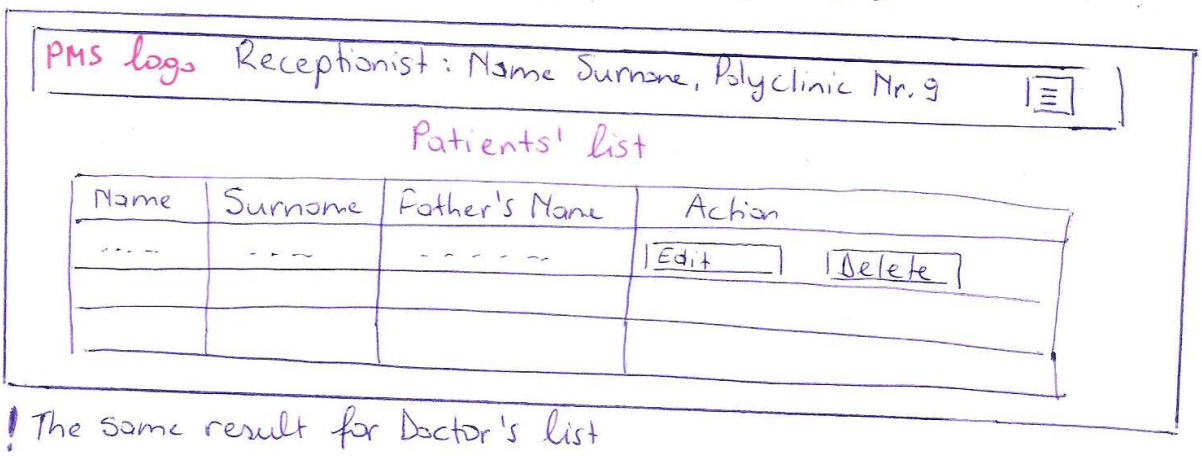
} no need for schemes

8) Receptionist (Add a patient / Add a doctor)



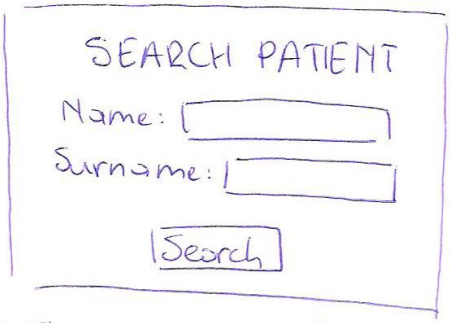
! The same format for adding a patient or doctor.

9) Receptionist (Patients' List / Doctors' List)



! The same result for Doctor's list

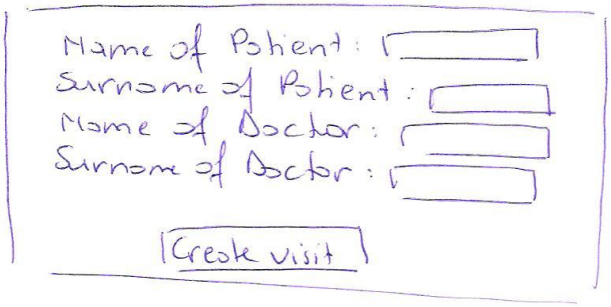
10) Receptionist (Search a patient / Search a doctor)



=> result of this search will be a table as the one shown earlier.

! The same idea for Searching a doctor.

ii) Receptionist (Create a visit)



=> this allows the doctor to write a new record for the current client

- Change password is the same as patient's change password and doctor's change password.