

SmartDoc®

Be healthy be smart



Boris Sidlo (267839)

Eduard-Nicolae Costea (267806)

Michal Ciebien (267808)

Mihai Tirtara (267839)

Remedios Pastor Molines (266100)

Supervisors:

Ib Havn (IHA)
Joseph Chukwudi Okika (JOOK)
Knud Erik Rasmussen (KERA)
Mona Wendel Andersen (MWA)



Table of content

1	Background description	3	
2	Definition of purpose	4	
3	Problem Statement	4	
4	Delimitation (Together)	4	
5	Choice of models and methods	5	
6	Time schedule	6	
7	Risk assessment	7	
8	Sources of Information Appendices	8	
Refe	References		

Appendices (including Group Contract)



1 Background description

The healthcare administration has its roots in the earlier 20th century when the number of hospitals grew. This made the necessity of having some type of training program to prepare the individuals to manage and assume administrative responsibilities. Thus, the first modern day "health systems management program" was born in 1934 at the University of Chicago. (Healthcare Administration, 2012). Furthermore, in the decade of the 50's, Homer Warner (American cardiologist) arose with the idea of introducing computers in hospitals to improve patient care (Owens-Liston, 2012).

A hospital information system (HIS) is an element of health informatics that focuses mainly on the administrational needs of hospitals. It is supported in the client-server architecture for networking and processing. Hospital Information Systems provide a common source of information about a patient's health history enhancing the ability of health care professionals to coordinate care by providing a patient's health information and visit history at the place and time that it is needed. (Anon., 2017). Furthermore with an electronic health record (EHR) which is a systematized collection of patient and population electronically-stored health information in a digital format. It can reduce risk of data replication as there is only one modifiable file, which means the file is more likely up to date and decreases risk of lost paperwork (Anon., 2014).

Nowadays we can see that the industry is shifting from reactive sick care to proactive health management, from fragmented niche care to a cross-continuum care system and from reward for volume to reward for quality, efficiency and safety. Increasingly more and more people want to have an active role in managing their own health and care. They expect the same level of information, detail and options that they have in other industries when it comes to making purchase decisions, and there is a rising call for data transparency and access (Cerner's Senior Vice President of Population Health John Glaser, 2017).



2 Definition of purpose

Our purpose is to facilitate the interaction between doctors and patients thus offering efficient and accurate administration of health information to better organize the workflow of the hospital.

3 Problem Statement

The main question is how the healthcare information can be easily accessed by the patients?

The sub-question we need to answer are:

What are the information patients would like to know?

How can we make sure the information will be stored?

Who will insert the patients' information?

Why do patients need the better access to their healthcare information?

4 Delimitation

One of project's delimitation are:

- Patient will not be able to change the received information.
- Only can doctors can insert patient's information.
- The system will not only store core information about the patients but also proactive recommendations



5 Choice of models and methods

We decide to build our project upon a managing software development strategy called scrum. Scrum is a framework, which was invented to simplify and divide work in a software development process for small teams. The original scrum model divides the until-deadline-time into two to three week periods called "sprints", in which every day starts with a short team meet-up where its members summarize recently done work and sets the goals for the given day. It allows a more flexible approach not only in requirements phase but also the implementation parts. (wiki.expertiza.ncsu.edu, 2012)The fact that the analysis and implementation of our system will be continuously updated will provide of product's better fulfilling the desired requirements, its clarity and maintainability.

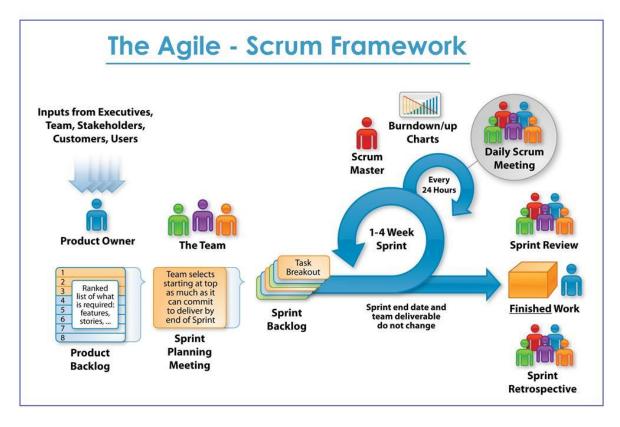


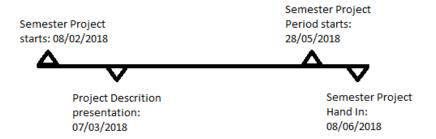
Figure 1, Scrum has simple roles, activities and artefacts, (Yelkar, 2015)



6 Time schedule

1 ECTS point is equal to 27,5 hours of work our project is equivalent to 10 ECTS that is about 280 hours per student.

The deadline of project is **Friday 8 of June** we have to manage to finish our project until this date. We have two weeks of project period which are approximately 80 hours of work and from beginning of semester we have 14 semester project Thursdays which are about 84 hours that means that we have to work at least 7 hours extra every week to our work smooth precise.



We will use Scrum to manage our project that means that we have to divided our work to sprints. One sprint should take about 4 days.

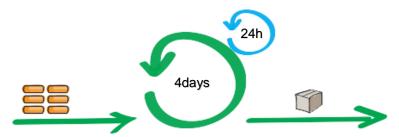


Figure 2, Scrum framework, (versionone.com, n.d.)



7 Risk assessment

Potential Hazard	Existing Control Measures	Risk Rating (1-5)	Preventive Measures	Responsibilities	Probability To happen(1-5)
Technical problems	Maintain well the working environment(computers,cloud,IDE)	5	Equip the computers with antiviruses and avoid to do dangerous task on them	Every member	2
Team conflicts	Keep the harmony in the group, help and respect the others	5	Motivate the team if it has problems	Every member	1
Lack of creativity	Team should constantly do topic related research during the Semester Project period	4	Team members must have in their program activities to stimulate their creativity spirit and make them interested	Every member	3
Time management issues	Team members should not spend time in an inefficient way	3	Team could have a timetable for their meetings and their tasks, making more easier for them not to forget something unfinished	Every member	4
Knowledge problems	Team members should not be left outside of the group and should be helped by the others to fix what it is unclear for them	2	Members could not skip classes and exercises and assure that ask questions all the time	Every member	1



8 Sources of Information

References

Anon., 2014. *Top Mobile Trend.* [Online]

Available at: https://web.archive.org/web/20140530024928/http://topmobiletrends.com/mobile-

technology-contributions-patient-experience-parmar/

Anon., 2017. Cerner. [Online]

Available at: https://www.cerner.com/blog/8-health-it-trends-to-watch-in-2018

Anon., 2017. Healthcare Informatics. [Online]

Available at: http://www.amritatech.com/healthcareInformatics.html

Anon., n.d. [Online].

Cerner's Senior Vice President of Population Health John Glaser, 2017. Cerner. [Online]

Available at: https://www.cerner.com/blog/8-health-it-trends-to-watch-in-2018

Healthcare Administration, 2012. HealthCare Administration. [Online]

Available at: http://www.healthcareadministration.com/healthcare-management-historical-

background/

[Accessed February 2018].

Owens-Liston, P., 2012. Health Feed. [Online]

Available at: https://healthcare.utah.edu/healthfeed/postings/2012/11/113012homeobit.php

[Accessed March 2018].

versionone.com, n.d. versionone.com. [Online]

Available at: https://www.versionone.com/agile-101/what-is-scrum/

[Accessed 7 March 2018].

wiki.expertiza.ncsu.edu, 2012. wiki.expertiza.ncsu.edu. [Online]

Available at: http://wiki.expertiza.ncsu.edu/index.php/CSC/ECE_517_Fall_2012/ch2a_2w6_ar

[Accessed 7 March 2018].

Yelkar, K., 2015. C#Corner. [Online]

Available at: http://www.c-sharpcorner.com/UploadFile/d9c992/the-agile-scrum-framework/

[Accessed 7 March 2018].