2017

Software Definition Document

[WORKING TITLE]

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CLIENT: Narges Zolfaghari

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# Purpose of this document

The purpose of this document is to outline the problem, the requirements of the solution, the responsibilities and skills of the development team, and possible methods of completing the project. Furthermore, this document aims to determine whether or not the solution is feasible.

# Client details

Nicholas Dingle

Business / Occupation: General Practitioner??

Phone number: 0263531644

Email: zolfagharinarges@gmail.com

# Problem outline

Narges Zolfaghari needs a software solution that keeps track of her patients, all of their information. The solution needs to offer a log of the patient’s visits to Dr Zolfaghari. Furthermore, a description of the visit along with different types of media, like images, audio, and video must be able to be added. The program must have a search function for Dr Zolfaghari to be able to find her patients in the database. The solution cannot access the data storage of Dr Zolfaghari’s work computer, for this reason, the data must be kept on an off-site database. The database must be encrypted to prevent security leaks.

# Requirements of software solution

## Input requirements

A password

Search Criteria

A description of a patient’s visit

A picture, video, or audio file

## Output requirements

A list of patients, in accordance to the search and sorting criteria

A list of recorded visits

A log of the visits with a description, image, video, or audio

## Performance requirements

The solution needs to receive and send client information, at a fast enough speed to not slow down the visit of the patient, and further strain Dr Zolfaghari’s schedule.

## Social and ethical requirements

The solution needs to keep the patient information secure. This can be achieved through encryption, and the secure keeping of off-site software with third party applications. If a security leak occurs, all of the clients sensitive and personal information will be leaked or lost, meaning that this is a serious ethical issue.

## 4.5 Technical Requirements

Processor: 1.0 Ghz or faster

RAM: 1 GB

Storage: 17 GB

# Development Team members

## List members

Eilia Keyhanee

## Member skills and knowledge

Eilia Keyhanee:

* Knowledge of XAML
* Knowledge of file encryption
* Competent problem solving skills
* Knowledge of C# programming
* Basic knowledge of UI design

## Member responsibilities

Eilia Keyhanee:

* Client Communication
* System documentation
* UI design
* Encryption algorithm
* Other programming
* User Documentation
* Bug testing

# Potential development approaches

{Problems can be solved in lots of different ways. So what software development approach will be used? What tools will be used to assist in development, what platform(s) could this exist on, etc}

## Approach #1

A structured approach, is the traditional approach to developing software, with a rigid plan of action, Define, Plan, Build, Test, Maintain.

The positives of this approach for this solution include:

* A clear course of action and plan to follow.
* Less buggy due to dedicated debugging and testing section

The negatives include:

* Takes a long time to do
* Not optimal for a small team.
* Not very flexible or open to change

## Approach #2

A combination of a structured approach and an agile approach, where the rigid structure of the structured approach is maintained, but the ‘Build’ section of the approach is conducted in an agile manner, feature by feature.

Some of the positives of this approach include:

* Maintains a clear course of action and plan.
* The dedicated debugging section remains.
* Optimal for a small team as issues can be tackled one at a time.
* flexible as new features can be added on any time during the build section.

Some of the negatives include:

* Still may take a long time to do, as each step of the structured approach must still be addressed.

## Conclusion

For this project, considering the small team size, the relatively limited time frame, the inherent requirement for planning, and the importance of delivering a bug free product, I have decided to deploy the second development approach of a combination of structured and agile development approach.