TCP Solutions

COS 301 FINAL YEAR PROJECT 2014

We are a team of open-minded individuals with strong technical skills, as well as excellent interpersonal skills. We are eager to be challenged in order to grow and improve our communication and professional IT skills gained through previous experiences in the IT field.

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i Executive Summary

This document is to detail a proposal for the Forensic Medicine Mobile Application project that provides a platform for Forensic Officers (FO) and Forensic Medical Practitioners (FP) to record and access information gathered in their investigations. This document also looks at the problems with the current system and addresses how the problems will be solved.

ii Title Page

Vision and Scope, Architectural Requirements Specification, Architecture Specification

Project name: Forensic Medicine Mobile Application

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GIT Repository: https://github.com/CollenMphabantshi/TCP-Solutions

Final Version Change History

Name	Date	Changes
TCP Solutions	14 May 2014	Vision and Scope
TCP Solutions	15 May 2014	Addition to vision and Scope and quality requirements.
TCP Solutions	16 May 2014	Software Architecture


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1 Overview

This document provides the overall vision and scope of the Forensic Medicine Mobile Application project. It explains and illustrates what the system will do and look like. This document basically provides the skeleton of our project. It includes the scope limitations and exclusions which will help guide the stakeholders on what is expected and not expected. This document also include use case diagram which will help explain and show the whole system.

2 Vision and Scope

The proposed system is the death scene register that allow:

Forensic officers to

- Capture data from death scene – the FO's will gather information on every scene based on the template it has on the mobile application
- View basic information – the FO's views personal details of the deceased and police officer who was at the scene

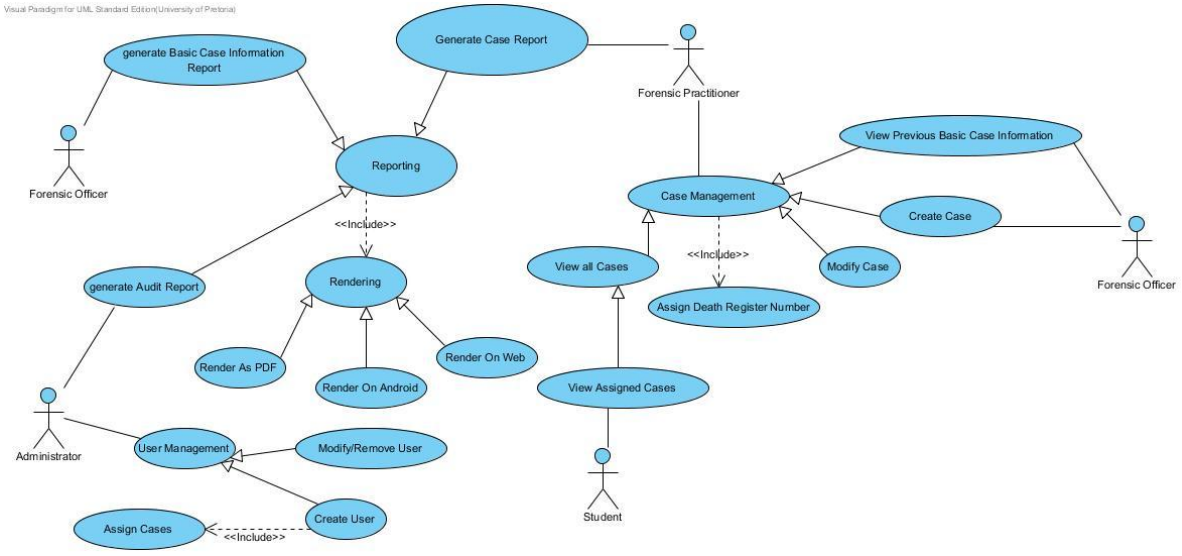

Figure 1: The Scope of the system

Forensic practitioner to

- Generate reports – FP's will generate web and pdf reports specifically to their needs e.g. generate report of all hanging cases 2014
- View all cases – every scene stored on the database they should be able to view them
- Edit case information - if there was any errors made on the form such as spelling errors FPs should be able to correct them

- Manage cases – FPs will dictate if the case is natural and non-natural death and do other functionalities.

Students to

- View all the cases cleared to them – this is for research purpose only

Administrator to

- Add new users.
- Remove users.
- Edit users – change personal details and access rights.
- View audit report.

2.1 Scope and limitations

Pictures that demonstrate how the incident happed are excluded on this phase, maybe they can be added at a later stage.

3 Architecture requirements

3.1 Access channel requirements

- It is going to be accessed by humans using android and web application.

3.2 Quality requirements

Performance requirements

- The system should process all the reports within 10 seconds.

- It should send the information to the server within seconds.

Reliability requirements

- The system should be up and running all the time.

- Easy and fast access to the database.

- The system will save made changes if the system crashed.

Scalability requirements

- The system should be able to handle all death scenes captured information.

- It should allow additional templates.

Security requirements

- The system is accessible to users who are authorized.

- System users will have different permission.

- Information about death scenes will be encrypted.

- Information stored by forensic officers will not be edited after the submission.

Flexibility requirements

- If something happen when the forensic officer is capturing information, it should automatically be stored in the server.

Maintainability requirements

- The system will be maintained every time the client needs new changes.

Auditability requirements

- The system should record all the changes made to the data stored, by showing whom, when and what was changed.

- It will also show old and new values.

Integration requirements

- Database will be created from scratch.

- The android application will be connected to the web service and the web service connected to the server.

Usability requirements

- Users should be able to use the system without prior training.

- The system will be in English.

3.3 Integration requirements

- This system will be able to access

- Afrihost, MySQL

3.4 Architecture constraints

- Mobile client must be running on an android application.

- The technologies that we will use is Asus nexus 7

- Android SDK
- MySQL
- HTML5,PHP,apache(Afrihost)
- Java, JavaScript
- Ajax, jQuery, SOAP

4 Software Architecture Documentation

5 Functional requirements and application design

6 Glossary

- Forensic officer (FO) – a specially trained crime scene officer that collects the finding evidence that will be analyzed back at the lab by forensic scientist or forensic practitioner.
- Forensic practitioner (FP) - also referred to as crime scene investigators and forensic science technicians examine pieces of evidence to provide crucial support in criminal investigations. Their professional expertise is sought in laboratories, crime scenes and courtrooms
- Stakeholders - is anybody who can affect or is affected by an organization, strategy or project. They can be internal or external and they can be at senior or junior levels.
- Students – honors and masters students who are doing research as part of their studies.