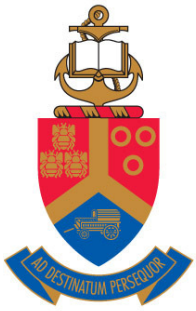

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Department of Computer Science

COS 301

Main Project

Functional Requirements Specification

Team Codex

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Contents

1 Introduction

This document aims to specify the functional and non-functional requirements as well as the architectural requirements for an electronic voting system specified by CodeX and the client EpiUse.

It will serve as a means of communication between the client and developers as well as providing an elaboration and a clear description of its implementation specifications.

2 Vision

What is intended for this project is to create a web and mobile platform, which can be used to cast votes in the provincial and national elections of South Africa. This project will help the elections in a number of ways by removing all possible fraudlent activities that come around elections in the world. Along with these benefits there are other benefits that will listed as well:

1. Things such as fake votes added by groups to assist a party with votes.
2. Votes that get lost or disgarded be it on purpose or not.
3. Incorrect counting.
4. Manual vote counting will no longer be required
5. Ease of acess to cast a vote
6. Secure voting
7. Prevent invalid votes to be casted making that vote not count (even if the invalid vote was intended).

3 Background

Elections are always a time were emotions are at a high and passion for a leader has never been more. Sometimes these emotions and passion for a leader can lead to unlawful activities to get their chosen leader to to win the elections. By moving the system to an electronic environment it removes almost, if not all, these possiblilities for unlawful activities to take place by using computers instead of humans. Computers are not influenced by emotions but only by the instructions given by their programming.

Addtionally to a secure and safe voting environment that allows ease of access from the voter's phone, computer or voting station it will also make the the voting process go a lot faster, have shorter queues to cast a vote and the progress of election and final result will be presented a lot faster with periodic updates as the system analyses the votes. This electronic voting system can be used in multiple scenarios not only in election. Any kind of fitting situation this system can be implemented for it. For instance it can

be used for national wide statistics gathering by completing a poll of some kind, where anonymity is vital or not.

4 Functional Requirements

4.1 Web Service

4.2 Multichain

4.3 Database

4.4 Security

4.5 Admin

4.6 Voter

4.7 Activator

4.8 Party

4.9 Domain Model

5 Open Issues

5.1 GitHub Repository

For more information and/or further references, please follow this link, for access to Team CodeX's github repository.