

${\bf Cos 301: Test\ Policy}$ for the SmartCard Application

May 11, 2018

NAMES: STUDENT NUMBER:

Mufamadi Khodani	u14197520
Setoaba Phuti	u13032616
Dandashe Kagiso Xolo	u14245681
Mashaba Mpho	u14309999
Mathe Musa	u15048030
Ntsoane Thabo	u15107532

Contents

1	Mission of Testing	1
2	Test Description	1
	2.1 Unit testing	1
	2.1.1 Storage	1
	2.1.2 Application activities and functions	1
	2.2 Manual testing	1
	2.2.1 QR Code functionality	1
	2.2.2 NFC functionality	1
	2.2.3 Import Card	1
3	Test Evaluation	2
4	Quality level to be achieved	2
5	Approach to Test process improvement	2
6	Travis-CI yml file	2

1 Mission of Testing

To effectively deliver efficient and effective software that meets the customers requirements. To further ensure that quality software is produced.

2 Test Description

Our Testing process will be divided into two sections. Unit testing and manual testing.

2.1 Unit testing

2.1.1 Storage

- Check if the information is stored correctly.
- Check if the information can be retrieved from the database.

2.1.2 Application activities and functions

- Ensure that an appointment can be set and retrived
- Validate that emails are of the correct form
- Ensure that a user can be created

2.2 Manual testing

In manual testing the test cases will be excuted manually as the name suggests(by a human being that is).

2.2.1 QR Code functionality

- Check if the QR code generates correct information
- Check the scanner scans properly
- Check that the information transmitted to another device is accurate.

2.2.2 NFC functionality

- Check if the App notifies the user if the NFC technology is not switched on.
- ensure that the device sends information
- ensure that the information transmitted is accurate

2.2.3 Import Card

- Ensure that a physical card can be scanned
- Ensure that the information that extracted is as accurate as possible.tent...

3 Test Evaluation

We will use JUnit and Travis-CI to ensure that implementations have been functions as it should. Travis-CI is a continuous integration, hosted service, JUnit is a testing framework for Android and Java applications.

4 Quality level to be achieved

We aim to have no outstanding faults prior to product release.

5 Approach to Test process improvement

Project review meetings are held in regards to improving the project.

6 Travis-CI yml file

```
language: android
android: components: - platform-tools - tools
//The SDK version we used to compile our project: android-26
//The BuildTools version used in our project: build-tools-26.0.2
//Other additional components: extra-google-google-play-services
//The emulator that we will be using: sys-img-armeabi-v7a-android-17
```

7 Testing Scripts

RegTest.java