

# South African Crime Tracker System

PROJECT LIFE CYCLE  
MACDONALD TISETSO MOLETE

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### **1. NAME OF THE SYSTEM**

#### **SA Crime Tracking System**

### **2. EXPLANATION OF THE SYSTEM AND SYSTEM CAPABILITIES**

The SA Crime Tracking System will be used by the SAPS together with the citizens, the system will be connecting all the police stations all over the country, with that being said every police station and every vehicle of the SAPS will have the system. The system will also be available for citizens to have on their phones, the system comes with a panic button which will help the SAPS to be able to track the location of the crime scene so that the nearest police station and the nearest SAPS vehicle get alerted, the system will allow user to login to the system and allow users to be anonymous. As the members of the SAPS have attended the scene a report can be created via the system which will act as proof that someone did attend the scene. After that a docket will be created through the system and stored to the database which can be accessed by every police officer, the system administrator.

### 3. DEFINING THE PROBLEM

South Africa is currently facing a huge increase in crime

When needing help from SAPS you call then the call is received from the head office then directed to the nearest police station, this takes time and airtime, in some cases citizens must go the nearest police station for them to get help from the SAPS. The officers are corrupted, the dockets disappear almost every day, when laying a charge, the victim is the one needed. The police officers who clock in at work and not work all day long. Police officers who use state resources for personal use.

### 4. PROJECT SCOPE

#### 4.1. Project objectives

The SA Crime Tracking System will enable the citizens to report any crime from anywhere and will also help the SAPS to track the location of the crime arrive in time, the docket will be saved on the database, this means it will be accessed by everyone who has authorization, that will limit the disappearance of dockets.

The project will be divided into 4 phases, namely.

**Phase 1:** The system will enable users(Police officers and citizens) to register and their data will be kept in the database.

**Phase 2:** There will be two features in this phase. The logging in of the registered users and the pressing of panic button in case it is an emergency and there is no sufficient time to log in.

**Phase 3:** In a trigger event (Crime report), all the nearest vehicles and officers on foot will be getting the pop-up notifications of the location of the scene and whoever who is near will attend to the case. The other officers will also see that the case is being attended by a certain officer and the system administrator from the nearest police station.

**Phase 4:** The report will be then written based on the name of the officer, time they attended and the location of the crime scene. Then the documentation of the docket will then take place after the report has been sent, the creation of the docket will be done by the officer(s) together with the system administrator and will be stored on the database for further usage.

#### 4.2. Milestones

- **PLANNING** – 25<sup>th</sup> of July – 31<sup>st</sup> of July.
- **ANALYSING** -
- **REQUIREMENTS** -

- **DESIGNING -**
- **DEVELOPMENT -**
- **DEBUGGING AND ANALYSING -**
- **PRESENTATION -**

#### 4.3. Constraints

- Project must be completed before .....
- Project must be completed within the budget of.....

## 5. VISION AND OBJECTIVES

### 5.1. Vision

The SA Crime Tracking System will help citizens to be able to report crimes and get response very quickly and have dockets not missing.

### 5.2 Objectives

- Allowing citizens to remain anonymous as the report crimes
- Having SAPS vehicles patrolling every time
- Having police come to you than you going to them
- Dockets being saved online

## 6. USERS OF THE SYSTEM

- End user-
- Super user-
- System administrator

## 7. MANDATORY SYSTEM FUNCTIONS

- The system will allow users to register and create profiles
- The system will have a panic button for users in case of serious emergency
- The system will be able to track the location of the scene
- The system will be able to print a report
- The system will be able to create a docket and store it on the database
- The system will allow for the deletion of a docket

## 8. FUNCTIONAL REQUIREMENTS

## 8.1. Registration

8.1.1. Allows creation of user profile – add, view, print and save.

8.1.2. Save Police officer/Citizen profile in the online database.

8.1.3. Maintain Police officer/Citizen registered Details – view, edit/update and maintain specific information.

8.1.4. Save Details – all details regarding a user/Police officer should be saved and have one primary Key.

## 8.2. Update

8.2.1. Officers can update their information and case information in case of an investigation.

8.2.2. Users can update personal information like cell phone and address

## 8.3. Delete

8.3.1. In the presence of an Officer, a user and system administrator a docket can be deleted, provided that a user gives a valid reason for the dropping of charges. (Docket to be removed from database)

8.3.2. Users can delete their profiles

## 8.4. Print

8.4.1. Officers/users can print case reports in case they need to use them.

8.4.2. Display reports on screen

8.4.3 Officers can print out dockets for court purposes.

## 8.5. Report

8.5.1. The report will consist of the time, the officer's name and the area

8.5.2. User can print report as proof that the SAPS attended to the scene

8.5.3. A progress report should be available for progress made on every case and should be available to all authorized personnel.

## 8.6. Integration

8.6.1. The system is based with the South African Police Services and integrates in all nine provinces

## 8.7. Deregister

8.7.1. A user can remove their account from the system completely.

## 9. NON-FUNCTIONAL REQUIREMENTS

- The system will allow authorized members to access the database.
- The system will allow for modifications to the database
- The system will have a help function
- The system should be able to handle traffic congestion and multiple users
- The system should return an error message when the login details are incorrect

## 10. USE CASES

### **Civilians**

Civilians can use the system to log in a complaint or report a crime with our easy-to-use interface, with instructions also offered in case someone needs help with navigation.

With live tracking, civilians can reach out to the nearest police station with the help of geo-tracking that is part of the system. When they are seeing a crime, they can get help by pressing a panic button of the interface, the nearest police officer on route will reach out to them.

They will also get regular updates from the police officers or system administrator on the case proceedings.

### **Police Officers**

Police officers will be dispatched in some areas out the community to do random patrolling, but some will remain behind in the police camp, in case of dire situations, they are dispatched as back up for the police officers on the road.

They will be able to control the system that will be installed in the vehicles, they will receive notifications sent to them and be able to respond to alerts being sent to them by civilians, or when their being dispatched by their camp base system administrator.

They will be able to respond with proper accordance, being directed by the severity of the panic button level.

They can open cases directly from the system when they arrive at the crime scene and send it to the system administrator for proper database back up.

They are also able to update the case dockets as more details might become known pending interviews that will be carried out in the crime scene.

### **System Administrator**

They handle installing the system in every police vehicle.

They will act as the second eye for the police officers on the system, as they can see live visuals of what the police officers are seeing.

They handle storing case dockets in the database for safekeeping.

They can access the case dockets, view, update and remove some information, when instructed by the police officer filing the case docket. They will verify every single detail with them, to ensure proper CRUD took place.

They are also responsible for dispatching back up as they will be able to communicate with the police officers that are at their base camps according to the panic button level being sent to them.

#### **Database administrator**

Once the dockets are loaded into the database, they will test the database for performance, integrity, concurrent access, and security constraints.

Use cases	Users/actors
Create case docket	Police Officer
Press panic button	Civilian
View case docket	Civilian, police officer, system administrator
Reply to notification	Police officer, system administrator
Add/update docket information	Police officer, system administrator
Process case docket	Police officer
Produce the docket report	System administrator
Testing performance, integrity and security constraints	Database administrator

## 11. TOOLS

- HTML
- CSS
- Bootstrap
- JQuery
- JavaScript
- PHP
- MySQL
- AJAX