

# SYSTEM TO DETECT EXPIRY OF DRUGS

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April 7, 2017

## **0.1 Introduction**

The expiry of medicines in Uganda highlights a problem with the supply chain which includes importation, exportation, transportation, medicine selection, quantification, procurement, storage, distribution and use of drugs. An expired drug is the medicine that has come to its end i.e. it should not be used because it may be spoiled, damaged or ineffective due to over staying. Due to lack of discrete bodies to combat loopholes and missing gaps in the supply chain in our country, that's why we have heard many issues of expired drugs being distributed and sold to the public. Sound coordination is needed between public medicine wholesalers and their clients to harmonize procurement and consumption as well as with vertical programs to prevent duplicate procurement.

## **0.2 Problem Statement**

Expired drugs aren't only dangerous but also harmful to our bodies. Once taken cause more side effects that can be detected. This as well causes severe pain, prolonged recovery and also many other effects. Considering the increasing levels of self-medication among the elites in Uganda and the lack of implementation measures for self-medication policies, there is no trusted intervention to assist individuals to detect expired drugs.

## **0.3 Objectives**

### **0.3.1 Main Objective**

To develop a mobile application to help detect expired drugs.

### **0.3.2 Specific Objectives**

To study the existing system which the government uses to trace expired drugs in Uganda in order find the requirements for the new system.

To design a mobile application that detects expired drugs using the bar codes.

To implement the proposed expired drug detection system.

To test and validate the working system.

## **0.4 Scope**

### **0.4.1 Geographical scope**

The research can be carried out around Kampala district and data can be collected from private medical stores, pharmacies and the national medical store using observations and interviews.

### **0.4.2 Functional scope**

The system can be an android and web based application that can be able to capture the bar codes on the drugs and detects the expiry dates retrieved from the database.

### **0.4.3 Duration scope**

The research can run for one full year.

## **0.5 Significance**

The system can be able to detect expired drugs using the hence giving a feedback to the user whether the drug is expired or not in order not to consume it. The system can be a source of information to healthy officers and other researchers who would like to use the information for other research topics. The system can be used by all healthy agencies both private and government companies that deal in inspection of expired drugs. The system can help the government to reduce the circulation of the expired drugs around Kampala since the expiry drug detector can be used in drug stores where drugs are kept.

## **0.6 Recommendation and Conclusion**

I recommend that systems to detect expiry drugs should be in place to avoid incidences that could lead to death. In conclusion, a lot of literature has been reviewed by many researchers about the concept of expired drugs however no literature has been reviewed on the detecting of expired drugs and there's no single rule for expired drugs. After seeing all these difficulties, there is a need for detecting expired drugs by using bar codes found on drug packages to verify date of importation and other information related on that specific drug.