**4.0 SYSTEM ANALYSIS**

**4.0 FEASIBILIT Y STUDY**

**4.0.1 Introduction**

The feasibility study was done to system to determine and understand the system requirements adequately. Some tool used to gather the information were the Wide World Web (www) and talking with various people on the viability of the idea. The following were the results:-

**4.0.2 Economic Feasibility**

The application was weighed and it was found out that an android account and a webserver to host the database and the scripts was need which was approximately 5,000 Kshs.

**4.0.3 Technical Feasibility**

The necessary technology to implement the system was in place and the tools available which include a webserver, an android smart phone, and database.

**4.1 REQUIREMENTS ELICTATION**

The requirements of the new system were gathered and the constraints understood. The requirements were as follows:-

**4.1 REQUIREMENTSELICITATION**

**4.1.1 FUNCTIONAL REQUIREMENTS**

**4.1.2 NON FUNCTIONAL REQUIREMENTS**

**4.1.2.1 SECURITY REQUIREMENTS**

The application will enable user create a user name and set a password which they will use in logging in and out of the application. Doctors have their own registration and account logging in different from other users.

**4.1.2.2 SYSTEM CONSTRAINTS**

The application can be integrated with an available hospital system to enable send appointments in the queue to enable also the receptionist see what other appointments have been booked except the daily bookings that are made in the morning.

**4.2 USE CASES**

The following use cases were to for the purpose of system analysis.

**4.2.1** Patients **use case**

new user already a user(patient)

**new doctor** **registered doctor**

**The application administrator**

**5.0 SYSTEM DESIGN**

**5.1 The architectural model**

The proposed application architectural model is shown below:-

DocBook

Data Base

Patients

Module

Doctors Panel

Module

Hospitals

Module

**CONTEXT DIAGRAM FOR DocBook APPLICATION**

Booking Appointments

Booking Appointments

DocBook Application

Doctor

Applicant as a normal Person/Patient

**ENTITY RELATIONSHIP DIAGRAM**

HOSPITAL TABLE

Hospital ID

Hospital Name

Hospital County Location

COUNTIES TABLE

County ID

County Name

DOCTORS TABLE

Doctor ID

Doctor Name

Specialization

Hospital Name

Appointment Time

Hospital Location