



## SCHOOL OF COMPUTING AND ENGINEERING SCIENCES

**KEMSA Commodity Tracking App**

**Commented [U1]:** Title of your project

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**Student Number:** 123456 and 7890123

An Informatics and Computer Science Project Proposal Document Submitted to the School of Computing and Engineering Sciences in Partial Fulfillment of the Requirements for the Award of a Degree in Bachelor of Science in Informatics and Computer Science.

**Submission Date:** May 2024

**Commented [U2]:** This section is  
1.Centered  
2.Font size 11  
3.Pushed to the bottom  
4.No page number on cover page

### Declaration

We declare that this project proposal has not been submitted to Strathmore University or any other University for the award of a Degree in Bachelor of Science in Informatics and Computer Science or any other Degree.

Student Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Student Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Supervisor Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

#### Commented [U3]: All Heading 1's are:

1. Times New Roman
2. Font size 14
3. Centered

#### All Heading 2's are:

1. Times New Roman
2. Font size 12
3. Left aligned

#### All text in the docs

1. Line spacing 1.5
2. Justify all paragraphs
3. Font size 12

All paragraphs should be written in prose. Do not use bullets or any form of numbering especially on the paragraphs.

The only sections where the Roman Numerals are used to separate ideas are shown in Chapter 1, specifically at Sections 1.3.1 and 1.3.2.

Choose a paragraphing method and stick to it in the entire document. Do not mix the two methods. For example, you can 'indent the first word' or 'insert space after each paragraph' to separate the paragraphs.

## Abstract

This section should be at least half a page.

### Commented [U4]: What is an Abstract?

1. An abstract is a short summary of your entire completed proposal document.
2. A well done abstract makes the reader of the proposal document want to read your more about your proposal.

### What are the contents of an Abstract?

An abstract has **FOUR** paragraphs each paragraph with a maximum of 4 sentences written in prose and with no subheadings.

1. Background of the problem
2. Problem Statement
3. Proposed solution with the method/procedure/app needed in solving the problem in (2) above.
4. Justification of the choice of solution

***NB: This is the last section that you write in your proposal***

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**Commented [U5]:** 1.This section is Auto-generated, not typed. See this section.  
2.All the Preliminary pages are numbered using Roman numerals.  
3.Numbering of Chapter One uses Arabic Numerals.  
4.Only populate this section after your entire document is done.  
5.Whenever you change any section in the document, remember to **update** this section so that there is consistency in the numbering of the pages.

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## List of Figures

**Commented [U6]:** 1.Add this section if you have a number of figures in your document.  
2.Number your figures correctly from the word go, for example, Figure 3.1 is the first figure in the 3<sup>rd</sup> Chapter or Figure 2.8 is the 8<sup>th</sup> figure in the second chapter.  
3.Figure captions with respective descriptions appear below the Figure not above it.  
4.This section is also auto-generated not typed.  
5.Only populate this section after your entire document is done.

## List of Tables

**Commented [U7]:** 1.Add this section if you have a number of tables in your document.  
2.Number your tables correctly from the word go, for example, Table 4.6 is the sixth table in the 4<sup>th</sup> Chapter or Table 3.2 is the 2<sup>nd</sup> table in the third chapter etc  
3.Table captions with respective descriptions appear above the Table not below it.  
4.This section is also auto-generated not typed.  
5.Only populate this section after your entire document is done.



## List of Abbreviations

**Commented [U8]:** 1. Only add this section if you feel that you have a list of abbreviations that need to be used in the document and the reader may not be familiar with.



## Chapter One: Introduction

### 1.1 Background

**Commented [U9]:** Strictly adhere to the numbering of the sections as shown in this document.

**Commented [U10]:** 1. In this section, document the current situation that you are trying to address. How are things at the moment?  
2. Use this section to bring the reader up to speed with the environment in which the problem exists.  
3. Therefore; tell us the history of the organization/firm/company, what business they are in, current system of operation, problems with the current system of operation.  
4. Citations are very important here. Use APA referencing.

**NB:** This section should be a minimum of one page and a maximum of one and a half page.

### 1.2 Problem Statement

**Commented [U11]:** 1. In this section, describe the problem that you have identified and would like to solve using an application or information system.

**NB:** This section should be at least half a page not less than that.

### 1.3 General Objective/ **Aim**

**Commented [U12]:** 1. Here, describe the generic purpose of the project.  
For example: *'To develop an android application that will assist in pharmaceutical commodities tracking from a manufacturer to a consumer'*.  
**NB: This is strictly one statement/sentence.**

#### 1.3.1 **Specific Objectives**

- i. To identify ...
- ii. To discuss the existing challenges with the current commodity tracking applications.
- iii. To analyze ...
- iv. To develop an android application that will assist in commodity tracking from a manufacturer to a consumer.

**Commented [U13]:** 1. An objective is a goal. Therefore, in this section write about specific goals of this project.  
2. Objectives should be SMART (**S**pecific, **M**easurable, **A**chievable, **R**ealistic, **T**imely). This is achieved by the use of the Blooms Taxonomy verbs. The Blooms Taxonomy Action Verbs is one of the documents that will be uploaded.

#### 1.3.2 **Research Questions**

- i. What are the ...
- ii. What are the existing challenges faced by the users of commodity tracking applications?
- iii. What are the ...
- iv. How is it ...

For example: *To discuss the existing challenges with the current commodity tracking applications.*  
3. The last objective should mirror the general objective/aim word-for-word.

**NB: Have a maximum of 4. Too many objectives may, in most cases, not be achievable.**

### 1.4 **Justification(s)**

**Commented [U14]:** 1. These are derived directly from the Specific Objectives highlighted in 1.3.1.  
2. They are mapped one-to-one to the specific objectives. Hence, the first specific objective gives the first research question. As a result, we can only have as many research questions as there are specific objectives.

For example: *What are the existing challenges faced by the users of commodity tracking applications?*

**Commented [U15]:** 1. A project justification is defined as a show or prove to be right or reasonable.  
2. In this section, describe why your solution to the problem identified is the best one.

**NB: This should be at least half a page.**

### 1.5 Scope and Limitations

#### 1.5.1 **Scope of the Project**

**Commented [U16]:** The project scope should clearly define the deliverables that are within the boundaries of the project and the ones that are outside the project boundaries.

#### 1.5.2 **Limitation(s) in the Project**

**Commented [U17]:** The project limitation(s) refer to any foreseeable challenges that the student might face when coming up with the solution that they are going to be developing.

## Chapter Two: Literature Review

### 2.1 Introduction

**Commented [U18]:** 1.A **literature review** is a select analysis of existing research that is relevant to your topic, showing how it relates to your project.  
2.It explains in detail how your investigation may assist in achieving the objectives that you have defined in Chapter 1. Hence, ensure that all the objectives given in section 1.3.1 are well discussed here.  
3.Review the literature that is relevant to your unique problem and the unique solution you hope to develop.  
4.Use in-text referencing that you learnt in the Communication Skills Unit.

### 2.2 Challenges Faced by

**Commented [U19]:** In this section, introduce your literature review by briefly stating what the chapter will be addressing.

For example: *'This chapter discusses the challenges faced by the users of commodity tracking applications and reviews the existing commodity tracking applications available.'*

**Commented [U20]:** 1.Sections 2.2 – 2.4 should be based on the objectives agreed upon in Chapter 1.  
2.Hence, they should elaborate more on what the project objectives ought to fulfil and evaluate.  
3.When embarking on this chapter, try and use recent literature materials that will help in defining the situation at hand in a better way.  
4.Avoid the use of bullets and numbering, all text should be written in prose.  
5.Remember to number the different figures and tables correctly.

### 2.3 Existing Solutions

**Commented [U21]:** Notice the numbering of the subsections under 2.3. This is how sections within a subsection should be numbered.

#### 2.3.1 M-Track Application

**Commented [U22]:** For each of the specific applications that you prefer to analyze in your project, for example 2.3.1 – 2.3.3 in this case, please note the following:  
1.Introduce the application by highlighting who the users are, why they use the application and for what specific tasks.  
2.Enroll as a user of the application so you can be in a position to use the application and hence have a better feel/grasp of what it entails altogether.  
3.Capture at least 2 screenshots of the app as a proof that you have an idea of what the application involves.  
4.Remember to number the figures accordingly.  
5.Discuss the pros and cons of the application you have just interacted with.  
6.Critic the application from your point of view.

#### 2.3.2 VLoc Application

### 2.3.3 Track-IT APP

## 2.4 Gaps in the Existing Applications/ Solutions

**Commented [U23]:** Here, you can either choose  
1.To discuss the challenges applying to all the applications you have interacted with in section 2.3.  
2.Or pick each app, highlight the challenges that you have encountered with the specific application and how you intend to address the challenges in your project.

## 2.5 Conceptual Framework

**Commented [U24]:** 7.A Conceptual Framework is a visual representation that assists in illustrating what is expected as the final output of the project.  
8.It is most commonly used to visually explain the key concepts in the project and the relationships between the concepts that need to be studied and implemented.  
***NB: This section has two parts: The diagram representing the Conceptual Framework and a Detailed explanation of the diagram presented.***

## Chapter Three: Development Methodology

### 3.1 Introduction

**Commented [U25]:** In this section, introduce your chapter by briefly stating what the chapter will be look into.

For example: *'This chapter discusses the software development methodology and the different aspects of the system analysis and design. Additionally, this section highlights the tools and techniques that will be used in the application development and the expected system deliverables that will be presented at the end of the application development.'*

### 3.2 Software Development Methodology

**Commented [U26]:** 1. Define a Software Development Methodology

2. Select a suitable software development methodology that will be used in the project and give reasons why.

3. Include a diagrammatical representation of the methodology you intend to use.

4. Label the figure correctly.

5. Additionally, using prose, describe in detail each of the stages within the methodology (3.2.1 onwards) and how they will all be applicable in the project you are embarking on.

#### 3.2.1 Requirements Elicitation

#### 3.2.2 .

#### 3.2.3 .

#### 3.2.4 .

#### 3.2.5 .

#### 3.2.6 Coding and Development

#### 3.2.7 Testing and Deployment

### 3.3 Software Requirements Analysis

**Commented [U27]:** 1. Define Software Requirements Analysis.

#### 3.3.1 Functional Requirements

**Commented [U28]:** In sections 3.3.1 – 3.3.2, begin by giving the definition of the section. For example, in 3.3.1 define functional requirements. Then, describe in prose the requirements that will be attained in the section.

#### 3.3.2 Non-Functional Requirements

#### 3.3.3 System Narrative

**Commented [U29]:** 1. In section 3.3.3, start by defining what a system narrative is.  
2. The narrative simply presents a written account of connected events in the application, the story of the application you intend to develop.  
3. This should be presented in the simplest way possible to allow any reader understand your project regardless of their background.  
4. Then, go right ahead and document the narrative specific to your project.

### 3.4 System Design

**Commented [U30]:** 1. Define what is meant by System Design.

#### 3.4.1 Use Case Diagram

**Commented [U31]:** 1. In sections 3.4.1 – 3.4.4 (Heading 3), begin by giving an explanation regarding what each of the diagrams involves.  
2. You may need to include other diagrams as your supervisor deems fit.



### 3.4.2 Class Diagram

### 3.4.3 Entity Relationship Diagram (ERD)

### 3.4.4 Database Schema

## 3.5 System Development Tools and Techniques

### 3.5.1 Tool 1

### 3.5.2 Tool 2

### 3.5.3 Tool 3

### 3.5.4 Technique 1

**Commented [U32]:** 1. In this section, indicate the tools and techniques that will be used in the implementation of the solution that has been proposed.  
2. Clearly indicate the reason how and why the tools will be used in the project.

### 3.5.5 Technique 2

### 3.5.6 Technique 3

## 3.6 Deliverables

### 3.6.1 Module 1

### 3.6.2 Module 2

### 3.6.3 Module 3

### 3.6.4 Module 4

### 3.6.5 Module 5

**Commented [U33]:** 1. Here, discuss the different modules that will be developed in the solution proposed.  
2. Do not forget to indicate the documentation that you will have, for example, System Documentation.

**References**

**Commented [U34]:** 1.Strictly adhere to APA Referencing format.

## Appendix

### Appendix A1: Time Schedule

**Commented [U35]:** 1.Please attach a Gantt chart here indicating how you will embark on the project with different timelines/milestones and duration(s) well indicated.  
2.Do not use a table to indicate the project schedule.  
3.The Gantt chart should be as realistic as possible.  
4.Feel free to use any tool to generate the Gantt chart. Then, copy/export it here.