



COLLEGE OF COMPUTING AND INFORMATICS TECHNOLOGY
REAL TIME RESEARCH ANALYTICAL SYSTEM.

By
CS19-9

DEPARTMENT OF COMPUTER SCIENCE
SCHOOL OF COMPUTING AND INFORMATICS TECHNOLOGY

A Concept Paper submitted to the School of Computing and Informatics Technology
For the Study Leading to a Project Proposal in Partial Fulfillment of the
Requirements for the Award of the Degree of Bachelor of Science in Computer Science
Of Makerere University

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September, 2018

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1.0 Introduction

Research in Uganda is one of the key areas that should be given a great priority and this is because it leads to development of ideas that can provide solutions to many problems. However, currently research in most institutions is becoming more expensive and slower than expected.

2.0 Background to the Problem

Research involves a number of steps that must be carried out in a systematic order so as to come up with good results. Unfortunately, many institutions have been facing the challenge of time delays in their research and this is because of the ineffective means that are being employed in the data collection and analysis. Currently research in most institutions involves a number of approaches for those that are able to beat the unreasonable costs involved financially and a lot of time wasted in follow ups. Again, those costs are one of the major challenges that reduce the possibility of collecting accurate information from the fields of study. This is majorly attributed to the current unreliable system that is used to gather and analyze data.

Apparently, researchers in most institutions try to collectively combine their results, analyse and input them manually to the database from tools such as mobile phones, flash disks tablets and papers. These approaches also deny the administrators the chances to monitor the work being done by their researchers. In addition to this, some platforms such as google forms, google scholars and GitHub are being used by some researchers but these are not able to provide a central platform for researchers in a given institution.

3.0 Problem Statement

There has been a delay in the research carried out in most institutions in Uganda and this is attributed to the poor techniques of data collections and analysis. Currently the data is recorded by using handheld computers or specialized data recorders which is later to be downloaded to more secure devices. This does not only involve a lot of time and labour but also contributes to the loss and inaccuracy of data during the data transfer. There are also greater chances of some researchers ending up with either incomplete results or no results at all due to poor monitoring by the administrators.

4.0 Objectives

4.0.1 Main Objective

To develop a Real time research tool application system to collect, gather and analyze data automatically on central platform and recommend areas that need more research.

4.0.2 Other Objectives

- To establish requirements to the Real time research tool system.
- To design a real time research tool system.
- To implement the designed real time research tool system.

- To test and validate the real time research tool system.

5.0 Methodology

This is a description of the selected methodology that is to say step by step methods of how the above objectives of the study/ research will be achieved.

Data collection method. Data will be collected using interviews, in-depth literature review with the aim of collecting reliable and complete data that can provide recommendation for the study as explained below;

An **interview** is a data collection method where a researcher asks a respondent a set of questions and records his/her answers [1]. We shall use interviews to find out how the different researchers carry out their research in this institution. help people to recover their phones. This will be used to establish requirements for the real time research application system.

In depth literature review is the analysis of the existing documentation on a given object. We shall use this approach to find out how the related application operate looking at their strength and their weaknesses to help us find ways of making our project better in terms of project implementation.

System analysis and design. This will be achieved using Unified Modelling Language (UML) to come with the different designs of the system like use case, activity diagrams and so on.

6.0 Outcomes

This project will be developed on both web and android platform to reduce the length of time researchers in institutions take to collectively enter and analyze the results of their research in a centralized platform of the institutions on real time. The research platform will provide a real time connection between the android application and the website database by providing timely updates of the database with the data collected from the research the android application hence increasing the integrity of research data.

It will also help to provide comparisons of the different research carried out in the different fields and notify which areas need to be given more attention. This system will track down the locations in which the research is being carried out and this will enable the administrators to also have the opportunity of monitoring the work done by the different researchers

7.0 References

[1] Neuman W.L (2003) Social Research Method Qualitative and Quantitative Approaches. Research (pp. 297-320). USA: Sage Publication, Inc.

