**MAKERERE UNIVERSITY**

COLLEGE OF COMPUTING AND INFORMATION SCIENCES

SCHOOL OF COMPUTING AND INFORMATICS TECHNOLOGY

**CSC3115** ADVANCED PROGRAMMING

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COURSE WORK ONE

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**Text Reader App.**

**Problem**

Paper records need to be consistently labelled and logically organized with a unique title such that it can be identified easily. This guidance describes best practice to create and describe a paper filling system which really gets hectic when dealing with large volume of paper work, and in case a soft copy is needed, scanning is meant to be done which may bring in some delays and involve costs. Paper works always kick out the blind out of information written on paper. The best solution is digitalizing all paper works to save risks of information loss by saving a backup or provide the disabled(blind) access to information by giving them an audio provision of information using Text reader app.

**Solution**

**Text reader app** will be able to read the text written on paper so that you can save it in digital format on your phone or PC. It will not exactly scan an image of the paper containing the texts but it will only read the text or number written on it. This will be done by the use of the phone camera which the application will use to detect and extract the paper text, the segmented characters are normalized and passed to an **Optical Character Recognition** (OCR) algorithm. At last the optical character information will be converted into encoded text. The characters will be recognized using template matching and the final output must be in form of string of characters.

The application will also be able to convert the string of characters into audio format since it will be embedded with the oxford dictionary thus the users will also be able to access the information on paper in audio form besides being able to store it as a backup soft copy as well as saving scanning costs.