Image to text convertor – Android Application

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Abstract- *Image to Text conversion android application is a free, simple-to-use application that uses latest technology (OCR) to extract text from image. With Image To Text, you just simply choose image, convert to text and do anything you want such as save, search, edit, etc... Internet connection is not required to run this app. The Mobile OCR app will turn your smart phone into a document scanner with OCR by converting the scanned documents from the camera or photo album into normal text. The application is pretty simple and reliable.*

Keywords- Image to text convertor, android, android application, ocr, optical character recognition, optical character reader.

I.   INTRODUCTION

1.   Image to text converter

It is a type of software used to convert images and documents into text format. Scanned documents, stored as image files can be directly converted into text files using this software. Converted text can be saved in different formats such as PDF, Word, etc. Many organizations use image to text converter to convert their paper documents into electronic files. Many different image formats can be converted. The format compatibility is an important pre-requisite for the conversion software. Scanned images of documents can be converted easily into text documents using this software.

2.   OCR

Optical character recognition (also called as optical character reader, OCR) is the mechanical or electronic conversion of images of typed, handwritten or printed text into machine-encoded text, whether from a scanned document, a photo of a document, a scene-photo (for example the text on signs and billboards in a landscape photo) or from subtitle text superimposed on an image (for example from a television broadcast) as illustrated in figure 1.1. It is widely used as a form of information entry from printed paper data records, whether passport documents, invoices, bank statements, computerised receipts, business cards, mail, printouts of static-data, or any suitable documentation. It is a common method of digitising printed texts so that they can be electronically edited, searched, stored more compactly, displayed on-line, and used in machine processes such as cognitive computing, machine translation, (extracted) text-to-speech, key data and text mining. OCR is a field of research in pattern recognition, artificial intelligence and computer vision.
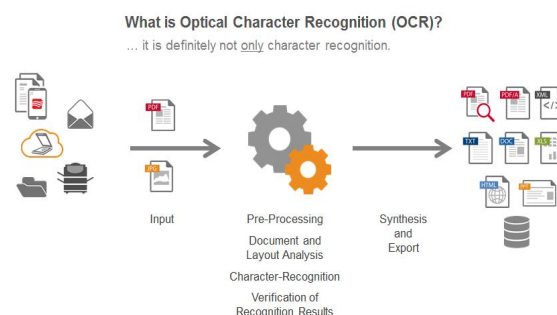

Figure 1.

II.   SOFTWARE USED

Android Studio is the official integrated development environment or we can say IDE used for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linuxbased operating systems.

Each project in Android Studio contains one or more modules with source code files and resource files. Types of modules include:

•   Android app modules
•   Library modules
•   Google App Engine modules

Each app module contains the following folders:

•   manifests: Contains the AndroidManifest.xml file.
•   java: Contains the Java source code files, including JUnit test code.
•   res: Contains all non-code resources, such as XML layouts, UI strings, and bitmap images.

III.   BENEFITS

The image to text converters are portable and have high compatibility with file formats and operating systems. Web developers often have the need for conversion of files from one format to another. This can be solved by image to text converters which can convert several files simultaneously, thus saving time. Archiving and retrieval of data is necessary in creative fields like print-media, law, government records, libraries insurance firms and banks. It becomes easier when the conversion process can take place effortlessly. Some image to text converters also support a multitude of languages, making the job versatile, easier and accurate. Simple user interfaces and high accuracy of character recognition can get a lot of things done quickly and easily. There are many benefits of using a service to convert image to text online, a major one is that it provides users with a good understanding of how OCR software functions. Many companies that have realized this have started providing such a free service to potential customers and thereby encouraging them to buy the paid version.

IV. METHODOLOGY

The software is easily available on the internet. You can download it for free. Once the software is downloaded it won't take much time to install. After it has been installed, load the image that has to be converted to text. The converting software will make use of optical character recognition to convert image into text. The final output can be saved in the desired textual format. There are some websites that provide free image to text conversion online. The user can upload the image file and get it converted into text without having to download or install any software. This saves a lot of time in case the user does not have the necessity to use the convertor more than once. Trial versions are also available for this conversion software. If the user is satisfied with the trial version, he can go for the higher version, for which he needs to pay.

V. FUTURE SCOPE

The task performed by this application can also be done manually but it involves more time less accuracy and wastage of money. Hence additional applications like these would be used always. Also, future updates may involve saving of converted document, accepting image document in different formats, direct link from internet of the source.

VI. CONCLUSION

The image to text convertor is working as efficiently as it can. It is successfully capable of converting any image in .jpg format into understandable text. Although there is always room for improvement and it may need more work and changes to be done but it can act as a temporary source of converting image to text on one click.

VII. ACKNOWLEDGMENT

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