A PROJECT REPORT ON
IMAGE TO TEXT CONVERSION

Submitted to SANDIP INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE NASHIK. (An Institute Affiliated to Savitribai Phule Pune University) BACHELOR OF ENGINEERING (COMPUTER ENGINEERING)

SUBMITTED BY

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CERTIFICATE

This is to certify that the project report entitles

'' IMAGE TO TEXT CONVERSION ''

Submitted by

RATNESH CHIMNANI PRN- 71917536E

is a bonafide student of this institute and the work has been carried out by him under the supervision of Dr. Vivek N. Waghmare and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University, for the award of the degree of Bachelor of Engineering (Computer Engineering).

DR VIVEK N.WAGHMARE
PROJECT GUIDE

DR. AMOL POTGANTWAR
HOD

ACKNOWLEDGEMENT

It gives us great pleasure in presenting the preliminary project report on “IMAGE TO TEXT CONVERTER”.

I would like to take this opportunity to thank my internal guide Dr. Vivek N. Waghmare for giving me all help and guidance I needed. I am really grateful to them for their kind support. Their valuable suggestions were very helpful. I am also grateful to Dr. Amol Potgantwar, Head of Computer Engineering Department, Sandip Institute of Technology and Research Centre for his indispensable support, suggestions.

MR.RATNESH CHIMNANI

ABSTRACT

- Image to text converter is a type of application that can be used to translate images of any format to the text format. This application helps one to convert the texts in image files into editable text files.

1. INTRODUCTION

- Image to text converter is a type of application that can be used to translate images of any format to the text format. This application helps one to convert the texts in image files into editable text files. It has some pre-requisite conditions saying first that the text captured should be aligned horizontally straight. Then the text in the image to be converted contains only A, B, C, and D of pre-defined fonts or human written fonts.
- 1.1 TECHNLOGIES/LIBRARIES
- **OCR or Optical Character Recognition** is a system that can detect characters or text from a 2d image. The image could contain machine-printed or handwritten text. OCR can detect several languages, for example, English, Hindi, German, etc.

- OpenCV is an open-source computer vision library written in C/C++. It is mainly focused on image processing. OpenCV provides more than 2500 optimized algorithms. These algorithms can be used to detect and recognize faces & text, identify objects, track moving objects, etc.
- Tesseract is an optical image recognition engine that runs on various operating systems. It can detect more than 100 languages from all over the world. Tesseract is originally written in C/C++. But we are going to use it in python.
- Python-tesseract is a wrapper for Tesseract-OCR Engine. It allows us to interact with the tesseract engine using python.

OBJECTIVE

• The objective of OCR software is to recognize the text and then convert it to editable form. Thus, developing computer algorithms to identify the character in the text is the principal task of OCR. A document is first scanned by an optical scanner, which produces an image form of it that is not editable. Optical character recognition involves. Translation of this text image into editable character codes such as ASCII .

PROBLEM STATEMENT

- To build an Program to covert in to editable text from image.

SOFTWARE REQUIREMENT SPECIFICATIONS

HARDWARE REQUIREMENTS---

CPU Speed : 2.4GHz

RAM: 4GB

Processor: Intel Pentium 4 or later

Operating system: Windows

Screen Resolution: 1280x1024

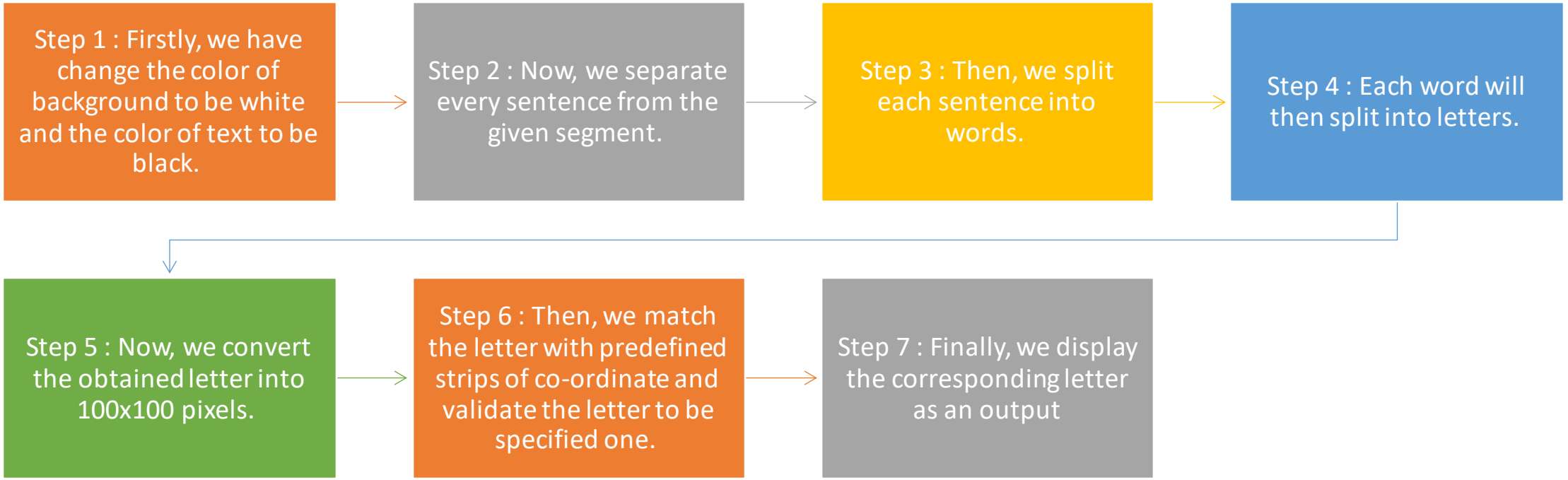
Hard disk capacity: 100GB

Internet connection Required

SOFTWARE REQUIREMENTS--

PYTHON,PYCHARM

PROCEDURE:


Step 1 : Firstly, we have change the color of background to be white and the color of text to be black.
Step 2 : Now, we separate every sentence from the given segment.
Step 3 : Then, we split each sentence into words.
Step 4 : Each word will then split into letters.
Step 5 : Now, we convert the obtained letter into 100x100 pixels.
Step 6 : Then, we match the letter with predefined strips of co-ordinate and validate the letter to be specified one.
Step 7 : Finally, we display the corresponding letter as an output

ADVANTAGES:

Image to text converter utility helps in format portability and compatibility that serves the purpose of using conversion from one format to another. In the present scenario, interchangeable formats are more in demand and software developers around the world need utilities that can convert files from one format to another easily and without too much hassle. This is where the ‘Image To Text Converter’ utility comes into play and the benefits of using the same are required. Further, many of the media houses use the converted files to store and retrieve data whenever they need. This helps in files restoring of image files at one's convenience making life easier for everyone in the process.

- CONCLUSION:

IN CONCLUSION TO THE PROJECT OF LABORATORY PRACTICAL 2 PRESENTATION I HAVE SUCCESSFULLY COMPLETED THE DEMANDS OF THE PROJECT WITH HELP OF CERTAIN TECHNOLOGIES AND BEEN ABLE TO MAKE PROGRAM OF IMAGE TO TEXT CONVERSION.