Pattern Recognition

Project 1:-

Optical Character Recognition (OCR) using template matching Description:-

you will get an input one or more characters from alphanumeric (A-Z, a-z and 0-9) your program should <u>find all characters</u> in alphanumeric.png image and <u>mark</u> <u>them</u> like <u>drawing rectangle around them</u>.

for example :-

if you enter "iD9" the program should be output this image

| Α | 65 | α | 97 | 0 | 48 |
|---|------------|---|-----|---|------|
| В | 66 | b | 93 | 1 | 4.9 |
| C | 67 | c | 99 | 2 | 50 |
| D | 68 | d | 100 | 3 | 51 |
| E | €9 | е | 101 | 4 | 52 |
| F | 70 | f | 102 | 5 | 53 |
| G | 71 | g | 103 | 6 | 54 |
| H | 72 | h | 104 | 7 | 55 |
| 1 | 73 | i | 105 | 8 | 56 |
| J | 74 | j | 106 | 9 | 57 |
| K | 75 | k | 107 | | 64 |
| L | 76 | 1 | 108 | | 0177 |
| M | 77 | m | 109 | | 0181 |
| N | 78 | n | 110 | | 0153 |
| 0 | 79 | 0 | 111 | | 0163 |
| P | 80 | р | 112 | | |
| Q | 81 | q | 113 | | |
| R | 82 | r | 114 | | |
| 5 | 83 | 5 | 115 | | |
| T | 84 | t | 116 | | |
| U | 85 | u | 117 | | |
| V | 86 | V | 118 | | |
| W | 87 | w | 1'9 | | |
| X | 88 | × | 120 | | |
| Y | £9 | У | 121 | | |
| Z | 9 0 | Z | 122 | | |
| | | | | | |

Notes :-

- 1. Maximum team size is 5 person
- 2. Deadline will be Saturday 15/4
- 3. There will be a discussion about the code for the whole team
- 4. Matlab and Python are allowed