

# Program Analysis report for Barcode and QR reader

## Program Logic

The program will take the name of the file plus extension as input. The file must be in the same directory as the jupyter notebook file.

## Libraries used

1. **os** library to list folders and files
2. **opencv-python** to read barcode / qr images
3. **pyzbar** to decode the image read by opencv-python

## Improvements

A better solution would be to create a flask application where image upload is possible. Another improvement is to list the possible barcode types and allow the user to select the appropriate type:

```
In [1]: 1 from pyzbar.pyzbar import ZBarSymbol
        2 #List all the possible barcode types
        3 for s in ZBarSymbol:
        4     print(s.name)
```

```
NONE
PARTIAL
EAN2
EAN5
EAN8
UPCE
ISBN10
UPCA
EAN13
ISBN13
COMPOSITE
I25
DATABAR
DATABAR_EXP
CODABAR
CODE39
PDF417
QRCODE
SQCODE
CODE93
CODE128
```

The **decode** function of pyzbar takes the barcode type as a keyword argument. Example:

```
decoded_img = decode(img, symbols=[ZBarSymbol.QRCODE,
ZBarSymbol.EAN13])
```