Creating QR Code And QR Code Reader Using Python

In Simple Terms QR Code Stands For Quick Response Code

Invented by a Masahiro Hara in 1994 to basically track movement of car parts in Denso Wave a Automobile Manufacturer.

Which in visual Form can be Stated As a Image With Dimensionally Pixilated barcodes

Which can be used to store Visually Encoded Information and Related Data.

In order To Use Python For Creating QR Code Install packages (**qrcode,pyqrcode,pypng**) on your system.

Use The Following Code To Generate The Simple QRCode.

```
import pyqrcode
import png

s=" Hello World! This Is Anand"

url = pyqrcode.create(s)
url.svg("Anandsfirstqr.svg",scale = 8)
url.png('Anandsfirstqr.png',scale =6 )
```

And In Addition To That There Are Various Other Features Of The Qrcode To Tweak For A Better And Advance Version Of The QRCode Stated Below:-

1-**Version** (Out Of 40 Versions Responsible For Controlling The Size Of QRCode You Can Choose Any One)

2-**error_correction** (Its Responsible for Regulating The Error Correction Varying From 7% to 30%)

ERROR_CORRECT_L: up to 7%

ERROR_CORRECT_M: up to 15%

ERROR_CORRECT_Q: up to 25%

ERROR_CORRECT_H: up to 30%

3-**box_size** (it controls the number of pixels in each box)

4-**border**(it regulates the border of the QRCode)

Further More There Are More Functions Stated Below To Create The Required QRCode Image.

1- **add data** (Its Used To Add The Required Info In The QRCode)

2-**make** (in this set fit=true)

3-**make image** (fill_Color and back_color arguments can be passed to Change the colours)

```
import qrcode
qr = qrcode.QRCode(
    version = 10,
    error_correction=qrcode.constants.ERROR_CORRECT_L,
    box_size=10,
    border=4,
)

qr.add_data(" Hi This Is Test QRCode ")
qr.make(fit=True)

img = qr.make_image(fill_color="blue",back_color="black")
img.save("Anand_Advanced.png")
```

Further More In Order To Read The The Created QRCode Any QRCode Reader Or Even Your Phone Can Be Used Or You Can Use The Python Code Stated Below,but Before That install the cv2 package using command **pip install cv2** :-

Import cv2.imread("Anand_Advanced.png")

Det=cv2.QRCodeDetector()

Val,pts,

st_code=det.detectAndDecode(img)

print(val)

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