QR CODE GENERATOR USING PYTHON

GADI SUDHESHNA[1], V. SARALA[2]

1.PG student, D.N.R. COLLEGE, P.G. COURSES (AUTONOMOUS), BHIMAVARAM-534202.
2.Assistant Professor in DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS, BHIMAVARAM-534202

ABSTRACT

QR i.e. "Quick Response" law is a 2D matrix law that's designed by keeping two points under consideration, i.e.it must store large quantities of data as compared to 1D barcodes and it must be decrypted at high speed using any handheld device like phones. QR law provides high data storehouse capacity, fast scanning, omnidirectional readability, and numerous other advantages including, error- correction (so that damaged law can also be read successfully) and different types of performances. Different kinds of QR law symbols like totem QR law, translated QR law, I QR Code are also available so that stoner can choose among them according to their need. currently, a QR law is applied in different operation aqueducts related to marketing, security, academics etc. and gain fashion ability at a really high pace. Day by day more people are getting apprehensive of this technology and use it consequently. The fashion ability of QR law grows fleetly with the growth of smartphone druggies and therefore the QR law is fleetly arriving at high situations of acceptance worldwide.

The fashion ability of QR code grows fleetly with the growth of smartphone druggies and therefore the QR law is hastily arriving at high situations of acceptance worldwide. With the wide perpetration of QR law, the protection point of QR law is serious, like data leakage and data revision. This paper emphasizes on the analysis of QR law and its applications. This platform could be used by different security heart associations. Text lines or word system could be translated into QR Code and be read by a mobile device, etc. The work is achieved by the use of python beaker frame which is the main interface for generating the QR Canons.

1 INTRODUCTION

Identification of relevant contemporary issues

Quick Response (QR) canons are protean. A piece of long multilingual textbook, a linked URL, an automated SMS communication, a business card or just about any information can be bedded int the two- dimensional barcode. Coupled with moderate equipped mobile bias, QR Canons can connect the druggies to the information snappily and fluently. In this paper, we explore how QR canons can be used in education. The low specialized hedge of creating and reading QR canons allows innovative preceptors to incorporate them into their educational endeavours.

The operations to recoup or store QR canons are incredibly simple and quick, and with mobile bias, make them the ideal educational tools for tutoring and literacy. Now mobile phones can apply numerous new kinds of operations similar as taking prints, and movie firing by using bedded camera bias. So mobile phones with bedded camera bias can be used to fete the barcode.

This design proposes the use of QR canons more innovatively by planting colorful modules for colorful purposes. It also provides a module for encryption in order to make QR law more secure and safe. moment, much all tasks are done digitally. With smartphones in our triumphs, the whole world is nearly at our fritters.

We're developing a Python operation program for QR Code generation. Python may be a program that makes our law likewise as reading QR Canons bestowed on several websites or software.

The PYQR code module is a QR law creator that's simple to use and written in pure python. The module is compatible with Python2.6,2.7, and 3.x. The module automates utmost of the structure process for you. Generally, QR codes can be created using only two lines of law!

Unlike numerous other creators, all of the robotization can be controlled manually. You're free to set any or all of the parcels of your QR law.

QR canons can be saved as SVG, EPS, PNG (by using the PY PNG module), and plain textbook. PIL isn't used to render the

image lines. You can also display a QR law directly in a compatible outstation. The PY QRCODE module attempts to follow the QR law standard as nearly as possible. The language and the encodings used in PY QRCODE come directly from the standard. This module also follows the algorithm laid out in the standard.

2. LITERATURE SURVEY AND RELATED WORK

Timeline of the reported problem

In the 1960s when Japan entered its high profitable growth period, supermarkets dealing a wide range of goods from foodstuff to apparel began to spring up in numerous neighborhoods. Cash registers that were also used at checkout counters in these stores needed the price to be reconciled in manually. Because of this, numerous cashiers suffered from impassiveness in the wrist and carpal lair pattern.

The invention of barcodes handed a result to this problem. latterly the POS system was developed, in which the price of an item of wares was displayed on the cash register automatically when the barcode on the item was scrutinized by an optic detector, and information on the item was transferred to a computer at the same time.

In 1994, DENSO WAVE (also a division of DENSO CORPORATION) blazoned the release of its QR Code. The QR in the name stands for quick response, expressing the development conception for the law, whose focus was placed on high- speed reading. When it was blazoned, still, indeed Hara, one of the original inventors of the law, couldn't be sure whether it would actually be accepted as a two- dimensional law to replace barcodes. He'd confidence in the performance of the law, still, and was eager to make the rounds of companies and assiduity associations concerned to introduce it in the stopgap that it would come given and used by as numerous people as possible.

In 1997, Since the QR Code is an open law that anyone is allowed to use, it's used not only in Japan, but also in countries each over the world. As rules for its use were quested and the law was formalized, its use spread further. In 1997, it was approved as an AIM standard * to be used in the automatic identification assiduity. In 1999, it was approved as a standard 2D law by the Japan Industrial norms * and made a standard 2D symbol on the Japan Automobile Manufacturers Association's EDI standard sale forms *. Still more, in 2000 it was approved by the ISO * as one of its transnational norms. At present, the use of the QR Code is so wide that it's no magnification to say that it's used far and wide in the world.

3 EXISTING SYSTEM

When the QR Code was designed, if it's too small or not of high enough quality. So, when the QR Code is published, the image also appears vague and would not be scrutinized. It also detracts from the design of the total print material and deters the scanners. For small scale printing, QR Canons work in JPG and PNG formats. But looking for high- quality that will satisfy a graphic developer, we will have to conclude for EPS or SVG vector lines that are scalable to avoid losing print quality.

Either our QR Code is so small that no bone can see it, or the QR Code is so big that it takes over the other needed contents. Either way, we wo n't get numerous QR Code scans with indecorous sizing in ourdesign.However, QR Canons has to be at minimal 2 x 2 cm(about 0, If our print material is small or medium- sized(similar as business cards or pamphlets).8 x0.8 in). still, also of course we need to gauge the QR Code with the size of the design, If our print material is larger.

4 PROPOSED WORK AND ALGORITHM

To overcome the issues set up within the being system, we've a tendency to come up with a brand new system, particularly increased QR law that may induce QR canons for larger data. This fashion can induce QR of colorful performances. variety} of information that can be keep in the QR law image depends on the word kind (input mode or character set), interpretation (1,., four0, indicating the general size of the symbol), i.e. 4 × number interpretation seventeen blotches on every side), and error correction position. utmost storehouse happens interjectionally at forty and error correction position L(low), denoted 40-L.We've proposed and tested a precise and fast system for the position of perspective- distorted 2D

QR Canons in arbitrary images under colorful lighting conditions. This system is suitable for localization of single or multiple QR Canons in low- resolution images as well as for real time processing. The proposed styles use typical position discovery patterns of QR Canons so- called finder patterns to identify three corners of QR Canons in an image. For malformed QR Canons perspective metamorphosis must be set- up.

5 METHODOLOGIES

MODULES

● The design methodology will be grounded on the popular Waterfall model. Conditions

Functional Conditions:

The system must take the input from the stoner.

The affair should be a generated QR law or scrutinized data. Non-Functional Conditions:

The system shall give information about colorful wikipedia affiliated questionsetc.

The design shall commence from the month of August and shall be completed by October 2nd week.

The design will make use of colorful libraries QR law and app developing affiliated libraries.

QR law reading and generating should have an delicacy of 7 out of 10. The language chosen to apply the design will be in python.

Implementation Of QR Code Reader and Generator

To induce a QR law you have to input data and also save the data with the name you want.

To read the QR law you have to import an image of QR law and also the data present in QR law will be displayed on screen.

This project generates the QR code according to the name given by the user and provides the text to the QR code that too is entered by the user.

This project detects the QR law present in the computer with same name anywhere in the computer.

Still, the creator checks it, reads it and the displays the content of the QR on the affair window, If the QR is present in the computer.

Farther, we will just produce a main function that will use the tentative statements and allows the stoner to either induce or read the QR law.

Still, he/she will have to give the name and content of the QR, If the stoner wants yo induce the QR.

Differently, he she will have to enter the name of the QR to check its validness and if valid, display its content on the terminal.

In addition to the QR Generator, we also have the website that hosts the Python train with the companion to install and run the law and explain its functionalities. In this step, we write the decoding function, where utmost of the cool effects will be passing. The decoding function will be doing substantially three effects, and can be listed as follows

● Feting and decrypting the barcode/ QR law that we will be showing to the camera.

● Adding the stored information as a textbook on the honored barcode/ QR law.

● And incipiently, exporting the stored information as a textbook document

6 RESULTS AND DISCUSSION

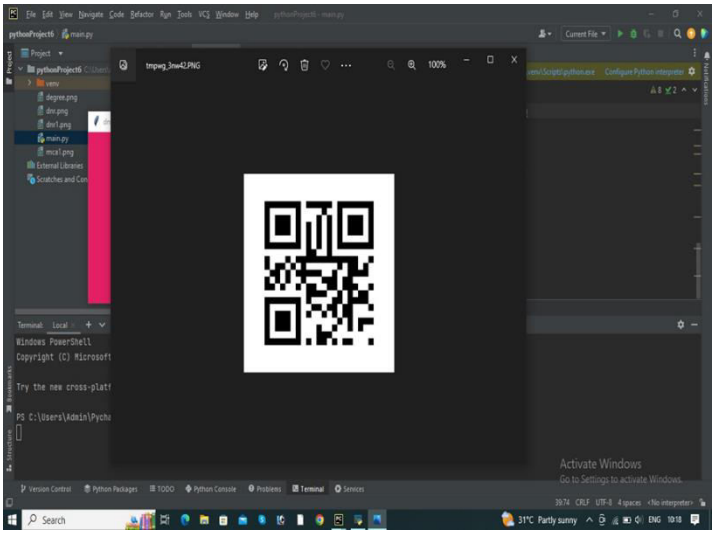

Fig1:QR CODE

Fig 2: RESULT

FIG 3 RESULT DISPLAYED PAGE

7.CONCLUSION AND FUTURE SCOPE

In the decades since the preface d QR canons, it's stoked fleetly. From the time 1994, several canons are developed still QR law still remains functional.

it's still advanced than barcodes that are used under the QR canons and with its professionals it tends to prompt better. still still QR canons do not feel to be an provident thanks to shoot data because it's decrypted with any good phones with QR law app anthology and causing data. shoppers have an interest in interacting with vicious advertising that bears a QR law- so, the pledge of farther edges within the kind of deals, tickets, vids, sweepstakes, social media relations, and so forth OR canons will grease a bill break through the muddle by adding the prospect it will be flashed back , nice news for advertisers who have formerly integrated a QR law strategy into a standard campaign or are wanting to fit one in an exceedingly unborn crusade.

" Quick Response"(QR law) could be a matrix law. As compared to 1 dimensional barcodes it should store a large volume of knowledge and mistreatment any hand- held bias like Smartphones it must be deciphered at high speed. These 2 points are taken into study whereas planning two dimensional matrix canons.

Future Work:

QR canons can store contents similar as textbook, URL links, automatic SMS dispatches, or any other information that can be well- established in a two- dimensional barcode. This programmed data can be decrypted by surveying the barcode with a mobile device that's equipped with a camera and QR anthology software. Although QR canons are veritably flexible and have been around for over eighteen times, their use in numerous fields. like medical, business, education, security are still in its immaturity.

This has shown that QR law can notice sensible operations in mobile network recharge operation services this fashion because it relies on MTN network can solely induce N100, N200, N400, QR recharge law. still, the software package operation will be bettered upon to come up with N750, N1500, etc recharge tickets also as different tickets for other mobile networks, like transnational com, 9mobile,etc.

We've planned Associate in Nursingd tested an unequivocal and quick fashion for the situation of perspective- distorted alternate QR Canons in impulsive filmland beneath multitudinous lighting conditions. This system is applicable for localization of single or multiple QR Canons in low- resolution images as well as for real time processing. The proposed strategies use typical position discovery patterns of QR Canons supposed finder patterns to spot 3 corners of QR Canons in an image. For distorted QR Canons perspective metamorphosis should be set- up. The optimum position of the fourth corner of the QR Code is decided by assaying the direction of vertical and perpendicular edges and by adding the quality divagation of vertical and perpendicular protrusions of those edges

8 REFERENCES

[1] Aidong Sun, Yan Sun and Caixing Liu, "The QR-code reorganization in illegible snapshots taken by mobile phones," International Conference on Computational Science and its Applications, 2007. ICCSA 2007, pp. 532-538, 26-29 Aug. 2007.

[2] "AVG Cautions: Beware of Malicious QR Codes". PC World. 28 June 2011. Archived from the original on 7 September 2012. Retrieved 31 August 2011.

[3] "Barcode Scanner". 1 June 2011. Archived from the original on 15 September 2012. Retrieved 31 August 2011.

[4] Chen, Rongjun; Yu, Yongxing; Xu, Xiansheng; Wang, Leijun; Zhao, Huimin; Tan, Hong-Zhou (11 December 2019). "Adaptive Binarization of QR Code Images for Fast Automatic Sorting in Warehouse Systems". Sensors. 19(24): 5466. Bibcode:2019Senso..19.5466C. doi:10.3390/s19245466. PMC 6960674. PMID 31835866.

[5] "From Japanese auto parts to ubiquity: A look at the history of QR codes". Mainichi Daily News. 9 November 2021. Retrieved 11 November 2021.

[6] "Getting Started with Infographics (deprecated)". google-developers.appspot.com. 26 May 2015. Archived from the original on 29 June 2016. Retrieved 27 May 2016.

[7] Gupta, Kishor Datta; Ahsan, Md Manjurul; Andrei, Stefan (January 2018). "Extending the Storage Capacity And Noise Reduction of a Faster QR-Code". Brain Broad Research in Artificial Intelligence and Neuroscience. 9 (1): 59–71.

[8] Hajra Shannon (18 October 2010). "Form Meets Function: Functionality and Form of QR Codes". Retrieved 29 July 2010.

[9] "Herdenkingsmunt met QR code volop in het nieuws!" [Commemorative QR code in the news!]. Koninklijke Nederlandse Munt (in Dutch). 21 June 2011. Archived from the original on 29 June 2016. Retrieved 27 May 2016.