

Implementation of Quick Reader to get project & Team Details of projects using IOS

Musheriya Begum¹ & Mrs. Swapna Rani.G²

¹M-Tech Dept. of CSE CMR Institute of technology Medchal, Hyderabad

Mail Id: - mushibegum@gmail.com

²Assistant Professor Dept. of CSE CMR Institute of technology Medchal, Hyderabad

Mail Id: - swapna20186@gmail.com

ABSTRACT

With the development of Information Technology, the application field of QR Code has become wider and wider. This paper is mainly about its encoding. When users input strings, 2-dimensional bar code will be formed; recognizing the shaped 2-dimensional bar code through IOS Mobile Phones; users can know the goods and its new information in circulation A QR (quick response) code is a two-dimensional barcode readable by QR scanners, smart mobile phones with a camera. QR codes can be used to link to any URL. They can also be used to automatically add information into a user's. Smartphone such as a calendar event, map or personal contact information A QR code is capable of storing several hundred times more information than a conventional barcode and is readable from any direction In this paper, the prior knowledge about A QR Code system is used in combination with a QR Code printer (or QR Code creation software) and QR Code scanner. QR Code is generated with QR Code creation software and a special printer. The QR code Scanner will scan the respected code and provide all the respected information of any project. The details will be such as industry, project team, support team and high level description about the respect client.

Key words: IOS, QR Code, Generation, recognition

1. INTRODUCTION

Two-dimensional code which is also called two-dimensional bar code utilizes specific geometrical figures, according to the encoding rules point, empty and white graphics in small area to mark data symbol information. It can express a large amount of information in a very small area. [1] 2D barcode also can express information in the

horizontal and vertical so that its storage density is very high. In addition, it has lots of advantages such as good correction capability, expressing information of kinds of figures and characters capability, high privacy, anti-fake and so on[4] .With the increasing of IOS mobile phones' occupancy in mobile internet, the

applications of 2D barcode in IOS is wider and wider. Phones can not only be the input terminals of forming 2-dimensional bar code, but also the cameras to sweep and recognize 2-dimensional bar code. Mobile phone 2D barcode has been applied and popularized by major mobile phone manufactures recently. The main content of this paper is about two-dimensional bar code Recognition System which aims at encoding QR Code, whose development bases on IOS.

2. RELATED WORK

- Scanning Module
- Detail description Module (About the scanned bar code)
- Team Details Module

Scanning Module

It's important to underline at this point that any barcode scanning, including QR codes, is totally based on **video capturing**, that's why AV Foundation framework supports the barcode reading feature. Initially, when the app is launched, the interface shown in the figure below is first displayed. By tapping the start scan button, a video capturing session is initiated in order to scan for QR codes. Note that this application cannot be tested on the Simulator, neither to a device without a camera, as everything is based on real-time video capturing. Therefore, you'll need to connect your device and run it there

if you want to see the application live. Scan QR codes, and barcodes of all varieties with AV Capture Meta Data Output, new to IOS 7. All you need to do is set it up as the output of an AV Capture Session, and implement the capture Output: did Output Metadata Objects: from Connection

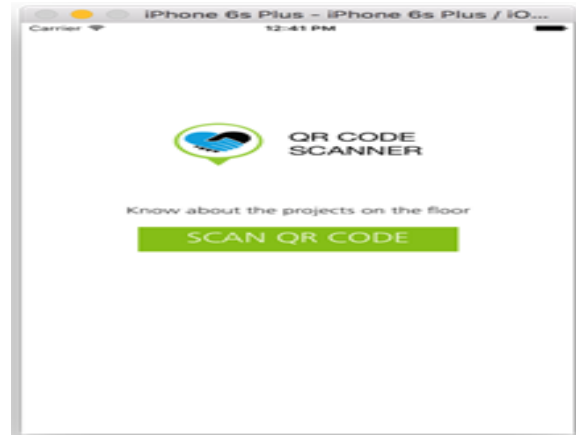


Fig:-1 QR Scanner

Detail description Module

In this module our Scanner will show the Detail description of the Scanned code

Team Details Module

This module results will be the team working on the project all the information about that team

Algorithm

- QR code is detected by a 2-dimensional digital image sensor and then digitally analyzed by a programmed processor.
- The processor locates the three distinctive squares at the corners of the QR code image, using a smaller

square (or multiple squares) near the fourth corner to normalize the image for size, orientation, and angle of viewing. The small dots throughout the QR code are then converted to binary numbers and validated with an error-correcting algorithm.

- The algorithm with four error correction levels. The higher the error correction level, the less storage capacity.
- Level L (Low) 7% of code words can be restored.
- Level M (Medium) 15% of code words can be restored.
- Level Q (Quartile) 25% of code words can be restored.
- Level H (High) 30% of code words can be restored.
- Due to error correction, it is possible to create artistic QR codes that still scan correctly.
- The format information records two things: the error correction level and the mask pattern used for the symbol. Masking is used to break up patterns in the data area that might confuse a scanner, such as large blank areas or misleading features that look like the locator marks.

- The mask patterns are defined on a grid that is repeated as necessary to cover the whole symbol.

Project architecture

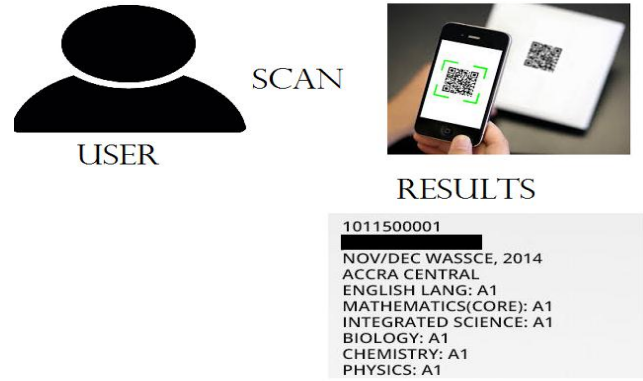


Fig:-2 This Flow of our Project

3. IMPLEMENTATION

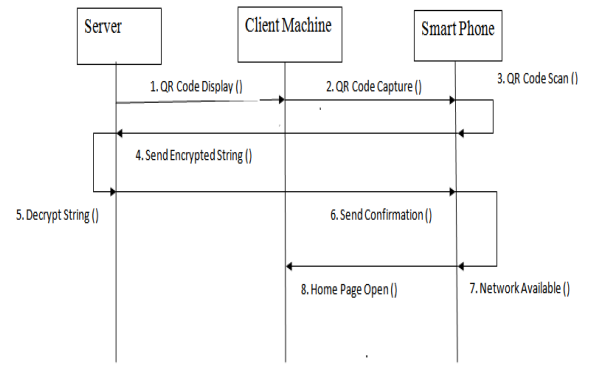


Fig:-3 Application Flow

The important feature, the QR code reading.

A start Stop Reading which is already declared and connected to the “start scan” button item. However, once the video capturing begins, the start button becomes a stop button and vice versa. Programmatically, that means that we need to find a way that lets the app know

when to perform the start functionality, and when to perform the stop functionality. if the app is currently scanning for a QR code and the is Reading flag is YES, then we call the stop Reading method.

Generate & Print QR Code barcode images in iPhone (iOS) Application

IPhone QR Code Generator SDK is a QR Code generator component designed for iOS project developers who need add QR Code creation features into their developmental apps for iPhone.

QR Code generation support on desktops as well as servers

Generate QR Code on iPhone client apps, without communicating with a server

Complete iPhone QR Code Generator Guide provided with iPhone QR Code generation demo project

QR Code is a matrix code (or two-dimensional bar code) created by Japanese corporation Denso-Wave in 1994. The "QR" is derived from "Quick Response", as the creator intended the code to allow its contents to be decoded at high speed.

QR Code Valid Data Scope

IPhone QR Code supports, Numeric data (digits 0 - 9), Alphanumeric data (digits 0 - 9; upper case letters A -Z; nine other characters: space, \$ % * + - . / :),Byte data

(default: ISO/IEC 8859-1); Kanji characters.

Sample Code:

```

-(IBAction)btnScanClick:(id)sender;{

    Reachability *reachability =
    [Reachability reachabilityForInternetConnection];
    NetworkStatus networkstatus =
    [reachability currentReachabilityStatus];
    if(networkstatus){

        if ([QRCodeReader supportsMetadataObjectTypes:@[AV
        MetadataObjectTypeQRCode]]) {
            static QRCodeReaderViewController *vc = nil;
            static dispatch_once_t onceToken;

            dispatch_once(&onceToken, ^{
                QRCodeReader *reader =
                [QRCodeReader readerWithMetadataObjectTypes:@[AVMeta
                dataObjectTypeQRCode]];
                vc =
                [QRCodeReaderViewController readerWithCancelButtonTitle:
                @"Cancel" codeReader:reader startScanningAtLoad:YESshow
                SwitchCameraButton:YES showTorchButton:YES];
                vc.modalPresentationStyle = UIModalPresentationF
                ormSheet;
            });
            vc.delegate = self;

            [vc setCompletionWithBlock:^(NSString *resultAsStri
            ng) {
                [self presentViewController:vc animated:YES completi
                on:NULL];
            }
            else {

                [self navigateDetailsScreen:Qrcodeid];
            }
            }
            else{
                alert(@"no internet connection");
            }
        }
    }
}

```

4. EXPERIMENTAL RESULTS

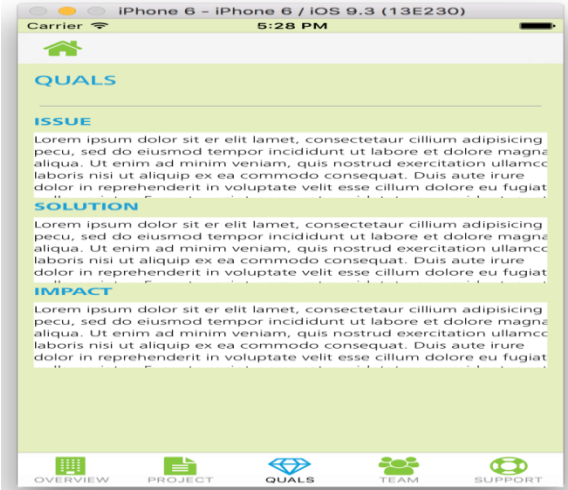


Fig:-4 App Quals Layout



Fig:-5 Detail description layout



Fig:-6 Team Details Module

5. CONCLUSION

QR codes can be used on various mobile device operating systems. QR codes have become common in consumer advertising. Typically, a smart phone is used as a QR code scanner, displaying the code and converting it to some useful form. QR code is its versatility. QR codes can be used for anything and everything. They are also beneficial for both customers and businesses. With the arrival of the big data time, applications of two-dimensional bar code are wider and wider. The QR Code with its accommodating a large amount of information, quick response and efficient representation of Chinese characters, become a mainstream code in matrix two-dimensional code. QR Code will have a wider and wider application prospect in the market of Chinese country. This paper mainly using the open source ZXing library to achieve the generation and recognition of QR Code, Experiments shows that it will have certain promotion effect for Two-dimensional bar code.

6. REFERENCES

[1] QR Code.com. Denso-Wave. Retrieved 23 May 2016.



- [2] “ISS QR Code AIM Store: Historical Archive”. Aimglobal.org. Retrieved 26 May 2016.
- [3] Qingqing Long, Research of Android intelligent mobile phone guide system based on two-dimensional code recognition[D].Hangzhou: China Metering University.2013:8
- [4] Lei Sun, The application of QR Code identification algorithm on mobile phone.[D].Shenyang:Northeastern University.2007:1-4
- [5] Li Liu, Study of two dimensional QR Code barcode decoding system based on image processing[D].Shenyang:Northeastern University.2010:12-14
- [6] Yue Liu, Mingye Liu, Journal of Beijing Institute of Technology, 2005, 25(4):252-254
- [7] Fengmei Liang, Development and application of computer,2002,15(5):13-16
- [8] Chunying Kang, Natural Science Journal of Heilongjiang University,2009,26(2):216-218
- [9] Dong Liu, Xiquan Gao, Information technology, 2004, 28(1):61-63
- [10] Ming Ma, Haibo Li, Computer recognition and technique, 2012, 8(26):6354-6355