Map Routing for Newbies using QR code

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ABSTRACT

This project is very useful for Newbies to find their destination. Using GPS we can find the HiFi Institution and Industries in any places throughout the world. But the specific location inside these organization could not be found using GPS. There are some other ways to identify the specific location but all of them will take more amount of time and cost. To overcome this difficulty our project is used. Nowadays everyone are using smartphones which having lot of application. There are some of the applications that are available for generating and accesing the QR code. We can easily achieve this project with the help of QR code to find the desired location. So this project is easy to handle and totally free of cost.

A. ***Keywords***

- **IEEE Keywords**
  Generators, Public key, Servers, Smart phones, Uniform resource locators, Delay effects
- **Author Keywords** QR Code, Smart Phones Security, Security algorithms, privacy, generator. authentication, content validation, data integrity

Introduction

QUICK RESPONSE (QR) CODE IS ABLE TO EXPRESS CHINESE CHARACTER INFORMATION, IT IS FIT FOR BEING UTILIZED IN OUR COUNTRY. QR CODE IS AN IMAGE OF A MATRIX BARCODE THAT STORES DATA IN TWO DIMENSIONS. DATA IS PRESENTED AS SQUARE DOTS WITH SPECIFIC PATTERN IN BOTH HORIZONTAL AND VERTICAL DIMENSIONS. SPECIFIC IMAGING DEVICES (QR SCANNERS) CAN READ THIS IMAGE AND RETRIEVE THE STORED DATA BASED ON THE PATTERN OF SQUARE DOTS. QR CODE WAS INVENTED IN 1994 BY DENSO WAVE FOR VEHICLES TRACKING DURING MANUFACTURE [1]. THERE ARE SEVERAL STANDARDS FOR DATA ENCODING IN QR CODES, THE LAST STANDARD IS ISO/IEC 18004:2006 INFORMATION TECHNOLOGY - AUTOMATIC IDENTIFICATION AND DATA CAPTURE TECHNIQUES - QR CODE 2005 BAR CODE SYMBOLOGY SPECIFICATION [2]. SMART PHONE DEVICES CAN BE USED AS QR CODE SCANNERS. THE EMBEDDED CAMERA IN THE SMART PHONE CAPTURES AN IMAGE OF THE QR CODE, THEN AN APPLICATION ANALYZES THE PATTERN OF SQUARE DOTS TO RETRIEVE THE ENCODED DATA AND DISPLAY IT IN A USEFUL FORM.

How does a scanner/smartphone interpret a QR code?

- Each barcode is interpreted similarly and yet also slightly differently as well.
- Barcodes also happen to be less complex that QR Codes.
- Barcodes can use scanners, whereas QR Codes require something else (i.e smartphones, computer, game machines)

Existing system

Using QR code we can generate images, text, links, mail, contacts, video (url) etc., Videos could be generated only by using url . We are in need of url for video generation so create an account in youtube. We have to capture the video for the destination. Then upload the video in

youtube. We need QR code generator application to generate the video. To generate the video we have to copy the url from address bar and paste it in the generator application. Proceed with the generate option then automatically video will be generated. The generated video will be saved automatically in our gallery.

Proposed system

Nowadays everyone are using smartphones which having lot of application.There are some of the applications that are available for generating and accesing the QR code.We can easily achieve this project with the help of QR code to find the desired location. For accessing the video which is inbuilt in the QR code we need to install the scanning application which is available in the play store. Using this application scan the code which contains the necessary video, then the video will be played. With the help of this video we can attain the destination.

Encrypting QR code

Encryption changes data or information that is normally plaintext through the usage of an algorithm so that someone must possess certain knowledge to access it. This special knowledge is normally called a key. For example, something is encrypted if someone must enter a password to access it. Encrypted QR codes are QR codes that not everyone can scan and access. They are not very common, since most QR codes are used in marketing, and the developers of those codes want them to be accessible by everyone. Secure QR codes can be made that make the scanner enter a password to be able to access the content. This is a good idea to make for employees of a company. The company can make secure QR codes that the employee has to enter the company password to view. This means people outside of the company cannot see decode the QR code without the password. One Android app can encrypt and decrypt QR codes using the DES algorithm. The immigration department of Japan has used encrypted QR codes on visas.

QR codes are normally encoded in plaintext. A QR code must contain certain parts to be easily decoded. This article, Anatomy of a QR Code, breaks down the different parts of a QR code. There must be the four main squares that you can see in a QR code, two in the upper corners, one in the lower left corner, and a smaller one near the lower right corner, which contains information on the alignment pattern. There also must be white space around the outside of the QR code. This is called the quiet zone. Check out the article above to learn more about parts of the QR code.

Creating QR code

1.1 QR code

This is probably going to be a really short page, because it actually quite easy to make a QR code. You don't need to know anything about writing code or really know anything about QR codes to do it. This is the easiest site I have found so far for making the codes: http://qrcode.kaywa.com/You can select content type as either URL, text, phone number, or SMS (text message).So those's where the QR code originally came from, but let's go back to the history of the original barcode:

If you select URL as content type, simply enter any URL (I would suggest doing your Face book page, LinkedIn Vpage, blog, or personal website) then click generate. You can change the size of the QR code for aesthetic purposes, but it doesn't make a difference as to how the QR code works. When you scan the generated code with your phone it will open the selected URL on your phone. For the text option, anything can be written. When you scan the code with your phone, it will open the message in the notes section.

The phone number option allows you to enter a phone number that will create a code that when scanned will open the phone number in your phone so that you can add it to your contacts or call the number.

The SMS option allows you to write a text message that you can send once you scan the code with your QR code reader. You enter the person's phone number in the Nr: section and the message underneath that. Using whatever option you choose, once you create the code, the site gives provides the image in an html code so you can add it to your website if you wish.

It has more options for where the code can take you such as Google map coordinates, a twitter status update, or a PayPal buy now link. You can also change the color of the QR code; it has to be a solid color though. It also has options to print and download the code, or you can also get it printed on t-shirts, pins, hats, and a bunch of other stuff.

Scanning QR code

1.2 Scanning QR code

Scanning QR codes is very simple and easy to do. But you definitely must have:

- ✓ A smart phone
- ✓ An application on your phone that is a QR code reader
- ✓ A QR code to scan

If you've never had a smart phone before, I would recommend getting an iPhone since it is very user friendly and simple to use. If you would like to have more options to customize your phone, look into getting a Droid since they have many more options than the iPhone.

Some phones come pre-loaded with a QR code scanner. If not, you can simply download one. Most of them are free, and the ones that cost money aren't any more than a couple of bucks. Here is a list of QR code readers. You can search by your phone model in the search box in the upper right hand corner of the

site, or you can just look through the list of QR code readers which say underneath their name which phones they are compatible with.

An easier way is to just search QR code reader apps in your phone and just pick one to download. I think the free ones work just as well as the ones that cost money. I would advise just picking one that has high ratings. Usually the ones that are close to the top of your search will be the highest rated and most popularly downloaded ones.

Here's a list of QR code readers just for the iPhone: http://news.cnet.com/qr-code-readers-for-iphone . This page has (in the writer's opinion) the best for QR code reader apps for the iPhone.

- ✓ NeoReader
- ✓ Optiscan
- ✓ QR App
- ✓ QuickMark

The writer analyzes each of the following and shows pictures of each app and discusses how each works. This can help you find the one that is best for you if you own an iPhone.

Android Barcode scanners: http://www.androidtapp.com/barcode-scanner/ . This link gives a review of the Barcode Scanner Android app. It shows you exactly how to use the app with a description and video.

Since most of these apps are free anyways, if you are really picky about the type of QR code reader you would like, download a few for free, try them out, and then delete all but the best one.Here's one more extensive list that breaks down the apps by compatible phone, price, and usability: QR code readers for iPhone, Android, Blackberry, and Windows Phone 7

So once you have the app of your choice, all you really need to do is open the app, and go to the scanning screen. Hold the phone in front of a QR code. You will see a red bar scanning. Mine will also highlight the four main squares of the QR code, and then it will automatically open the URL or whatever else the QR code contains. My app saves my recently viewed QR codes, so I can re-open them whenever I want. Scanning is very easy to do, so start scanning these codes everywhere you find them to find out what information they contain.

QR code in finding destination

Using QR code we can generate images, text, links, mail, contacts, video (url) etc., Videos could be generated only by using url . We are in need of url for video generation so create an account in youtube. We have to capture the video for the destination. Then upload the video in youtube. We need QR code generator application to generate the video. To generate the video we have to copy the url from address bar and paste it in the generator application. Proceed with the generate option then automatically video will be generated. The generated video will be saved automatically in our gallery.

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