



Develop the Cloud Based Personal Document Storage System and Retrieve Them Using QR Code

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Abstract: *Technology is developing with growing concept of digital market. The Digital world is making the planet Eco-friendly. The concept of I-Docket makes this more strongly toward the digitalization of World. I-Docket is the Application developed to reduce the burden of carrying any kind of important documents. So in this paper we have developed the Application which will replace all the hard copy of documents. This Application is useful for storing the user documents and retrieve them whenever and wherever needed. While retrieving the documents the QR(Quick Response) Code is used so that all the multiple documents can be fetched at a time which ultimately saves the time. The Concept of Wallet is also introduced in this application. As the transactions are becoming cashless the Wallet plays an important role in it. The main Aim of Developing the I-Docket Application was to provide security to user documents and save the time while presenting them.*

Keywords – *Quick Response (QR) code, Android, Cloud Computing, Cloud Storage, Mobile Application.*

PROBLEM STATEMENT

User has to always carry many number of documents for various purposes at different places for different reasons, user also has to carry multiple identity proofs.

I-Docket will replace multiple documents and act as universal resource. When user has to carry multiple cards, or documents, it arises portability and security issue. Carrying Documents also deals with having secure transaction so I-Docket will be provided security by using QR (Quick response) code while retrieving the documents. To overcome all various issues in carrying multiple Documents as identity proof and for various other transactions, it becomes a necessity to replace it with a new concept.

I-Docket is an application having features that will support the new concept, in which user need not have to carry multiple documents and also providing security for a safe transaction with them.

I. INTRODUCTION

I-Docket is an Android based application. It can provide personal identification, authentication, data storage and application processing. Limitation of a I-Docket is limited storage space. Transferring of data should take minimum time and it should be faster, therefore having an efficient working system is important. Combination of multiple documents and identification proofs is I-Docket. To access and store our personal and business Documents anytime and anywhere is the main feature of I-Docket.

Components of I-Docket are:

- 1.1 Admin (Server System):** Admin system is responsible to add or delete the Authorized person and the scanner app. Admin also work as the Cloud Storage system, all the documents uploaded by the authorized person will be stored at the cloud storage available at the server side.
- 1.2 Authorized Person:** Authorized person is mainly responsible for adding, deleting or modifying the user's document. It helps to authenticate the document and then upload it on Cloud Storage. It also is helpful to add the vehicle details.
- 1.3 Android Scanner App:** Android Scanner app is used to scan the QR (Quick Response) code which is generated on user application. Android scanner app also check the user Documents as per the field needed. It also has the permission to apply a fine or penalty if the user is found guilty in breaking any kind of rule. It can also check the vehicle details whenever needed.
- 1.4 User Application:** User application is used to generate the QR (Quick Response) code. Before generating the QR code user have to select the field in which the documents are needed. The user can also the money to his I-Docket wallet. Using this wallet he/she can do the transaction of money online.

II. PROPOSED SYSTEM

In the earlier paper the idea of Smart Card was used to retrieve the documents but in this paper the android application is used to retrieve the documents using the QR code [2].

This section explains the overall context of the paper and all the concepts of this idea. The detail information is as follow:



Figure 1: Proposed System

The main idea is to achieve single user which consist of all the user documents. The user can store its scanned documents and other user information on the I-Docket using an authorized person verification.

This process starts from the point where the user has to store the necessary documents on the Cloud storage from the Authorized person e.g.: Regional officer, who is responsible to verify user documents and store the soft copy of the document on Cloud Storage. While showing the documents user need to select the field to which related documents are to be shown. Then user needs to generate the QR code for this document. The Scanner app will scan the QR code and view the necessary documents. If the user is found guilty in breaking any kind of rule and he/she has to pay penalty or fine, the scanner app has the rights to apply the penalty or fine to the user. This penalty or fine will be deducted directly from the user wallet. The user can add money to his wallet using the User Application.

Data storage capacity is flexible on the I-Docket. Storage of data on server side will be done on Cloud to make it easier to access, with necessary restrictions to keep it safe.

This overall system is cost efficient, as the application is available at free cost. The user with non-Android phones can also use it by giving the unique ID provided to every user.

Security is achieved as adding, deleting or modifying of documents is only possible by an authenticate person using it's only provided identity verification. The QR Code is used to keep the user documents safe.

QR (Quick Response) Code:

QR Codes, is a type of barcode. They are still largely unknown. It is important to understand when they can help our users and what they can do. A QR code is a matrix barcode readable by mobile phones and smart phones with cameras. They are sometimes referred to as the two dimensional codes, two dimensional barcodes, or mobile codes. On most phones it is necessary to download the free application although some phones have one preinstalled. Typically, the QR code appears as a small white square with black geometric shapes on it. A QR code has ability to hold more information than a regular barcode. The information can be encoded in a QR code symbols is a SMS message, an URL, a phone number, a V-card, or any text and it allows the contents to be decoded at high speed [1]. Quick Response (QR) codes can contain all types of data, such as numeric and alphabetic characters. Up to 7,089 characters can be encoded in one code.



Figure 2: QR Code

Source: <http://www.qrstuff.com/images/sample.png>

III. CONCLUSION

Thus, we conclude that using the varied methodologies we will be building an Android Application which will be beneficial for the user to access his documents anytime and anywhere.

This will in turn help the user to save time and energy which he would have spent it in manually showing the documents. An mobile application can also be developed for other operating system i.e. IOS, Windows. Thus app can be benefited for number of people who are using different operation system other than android.

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REFERENCES

- [1] Ako Muhammad Abdullah, RozaHikmat Hama Aziz,"Evaluating the Use of Quick Response (QR) Code"IJARCSSEVolume 4, Issue 11, November 2014.
- [2] Ammara Ansari, RujutaJoshi, AkshayKatariya, Rama Gaikwad "Single Multipurpose and Resourceful Techno Card" IJETSRISSN 2394 – 3386 Volume 3, Issue 2 February 2016.
- [3] Dr. M. Thiyagarajan, Chaitanya Raveendra "Integration In The Physical World In Iot Using Android Mobile Phones"ICGCIoT 2015.
- [4] Anjali M. Patil, Prof.R.M.Goudar "Sensitive Data Storage and Access Using Patient's Mobile Device" IJIRCCE Vol. 2, Issue 12, December 2014.
- [5] Kevin Peng, Harry Sanabria, Derek Wu, Charlotte Zhu "Security Overview of QR Codes".
- [6] Alexandros Marinos, Gerard Briscoe" Community Cloud Computing" arXiv:0907.2485v3 [cs.NI] 12 Oct 2009.
- [7] Raed M. Bani-Hani, Yarub A. Wahsheh, Mohammad B. Al-Sarhan "Secure QR Code System" IEEE 2014.
- [8] Wojciech M. Zabołotnyaand RadosławWielgórskiaand Marcin Nowika "Implementation of System for Storing and Accessing of Sensitive Data on Patient's Mobile Device" SPIE vol. 8008,80081, 2011.
- [9] C. Sanchez-Avilaf, R. Sanchez-Reillo, "The Rijndael Block Cipher (AES Proposal): A Comparison with DES" 0-7803-6636-0/01/ 02001 IEEE, 2011, pp. 229-234.
- [10] Dhawade Pooja J, Lathkar Y.V, Date Purushottam B, "Smart Home Using Andriod Application", IJRET: International Journal of Research in Engineering and Technology, Volume: 3(4), pp.365-367, April 2014.