

An Approach to Implement a Social Media Connection Hub

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Abstract - Today, the evolving technology has engendered numerous astonishing discoveries, high-quality facilities, and immeasurable luxuries that allow us to say that technology is at its pinnacle. A plethora of things like food delivery, online billing, money transfer, shopping and video calls are becoming close-at-hand. When one meets a new person today, they try to find each other on Facebook, Instagram, LinkedIn, Snapchat or any other social media application. Each social media has its style of connecting people across the globe. In this on-going progression of technologies, we propose an application that is a universal tool for connecting people across all common platforms of Social Media. Remaining indifferent of the pros and cons of Social Media, a centralized system is imperative to remove all the hassle of connecting by yourself with connections like family, friends, and acquaintances.

Key Words: Universal Connector, Social Media, Facebook, Instagram, Snapchat, Truecaller

1. INTRODUCTION

Social media is remodelling communication because it brings an innovative level of performance to inspiring social development. The jump from traditional communication and marketing avenues to social media is ultimately necessary for multiple reasons because social media interactions are much more public and fluid.

Why sometimes we procrastinate from creating new connections or advancing old connections? Why do we fail to add the same person on B social media application when we have already connected that person on A social media application? Making new connections and maintaining older ones should be as simple as receiving updates or suggestions from any application. The paper introduces a platform where one person's record of all the accounts on any media is in one spot.

Efficiency has become necessary in every field possible. How efficiently we connect has not increased from the beginning. We still manually add each other's information on our devices, which take more time than we realize. Today when everything needs just a click to make it happen, then we must excel the same way in this domain as well. For sharing our contact number, we manually collect the information from the other person. Although this process has become a bit easier by applications like Truecaller. There is a scope of enhancing this process even more. Talking about Social Media, searching a person on Facebook is also a task that can be optimized via the solution proposed.

Similarly, we can talk about connecting easily on other platforms like Instagram and Snapchat.

What we propose is a shared identification, it could be a unique number for each person's traditional cumulative social media or a QR Code for the same. Instead of manually going to all the platforms, one can share this identification with others to easily add them to their social media. We have to scan the QR, and success results in a contact addition. Along with contact details, other profiles like Facebook profile, Instagram profile details can be embedded within the QR. So, a single scan can automatically add not only on the contact but the social media information as well. This can further be extended to connecting on professional online portals like LinkedIn using the available APIs.

2. RELATED WORKS

As per today, there is no specific work done in social media connection optimization. However, we can refer to similar projects and initiatives, that making a centralized system has always been beneficial.

The Unified Payment Interface (UPI) introduced by the national payment corporation of India (NCPI) is one of the most groundbreaking, uncomplicated and yielding novelties that has made an astounding impression on the Indian economy. It is an active step towards complete digital India. Bijin P. [1] talked about it where the researcher used Mean, F-Test, ANOVA and Regression analysis for analyzing and interpreting the data. This study revealed that there is a positive impact or perception by the customers towards a unified payment interface.

Ramesh K. Bagla and Jasmine K. [2] investigated the factors that are responsible for the growing popularity of online booking and ordering of food in India, expectations of the users, and their satisfaction levels with the popular apps such as Foodpanda, Swiggy, and Zomato.

Getting information regarding all restaurants and hotels within a certain radius on a single platform is creating comfort and luxury. Descriptive research was undertaken based on primary data collected from the people residing in Delhi chosen through non-probability convenience sampling using a structured questionnaire. Inferential analysis was done on the data collected. Not only the customers are satisfied; they now want these applications to offer more attractive options while ordering food.

While there is no work done in unifying the connections but keeping the applications separate, several social media management tools are made which club all the social media in one singular application. Ashley Ames Ahlbrand [3] talks about the advantages of social media management tools which can be very beneficial for people who are in charge of monitoring social media accounts for their workplace. Products like Hootsuite are available which is arguably one of the most popular social media management tools, allowing you to schedule posts in advance and providing an auto-schedule feature to help you post at the optimal time of day. Other products like TweetDeck, Buffer, SocialOomph, and Tweepi are also present, but unfortunately, most of these products are paid.

3. TECHNICAL DETAILS AND WORKFLOW

QR Codes are 2-dimensional, which appears in them having a square stuffed with data. Besides data, specific identifiers are helping the code being read precisely. The technical use-case of the software is to generate a QR code and after that, read the same. After reading a person's QR, the screen will pop all the choices where a connection with the person can be established. Selecting the expected option will reach you to that person's account

4. HARDWARE AND SOFTWARE CAPABILITY AND CONSIDERATIONS

Even the most basic mobile phone exhibits the power to generate and detect a QR code quickly. Leveraging this one can do all the processing required for the information transfer between the peers itself on the phones. For explaining the architecture, we will be considering the platform for the application be the Android operating system developed by Google.

The essential requirement for scanning a QR code will be a library to read and write the QR Code. Choosing android allows the developers to choose a library from tens and hundreds of libraries. For the QR code operations, we have chosen an open-source library named 'ZXing' (available on GitHub). For storing the data in the QR, we shall first serialize the content into JSON, and after retrieving data from the QR, we shall deserialize the content back to Java classes. The Java classes will denote the data structure of the content which is encoded while making building the QR and while retrieving content from it. To perform serialization and deserialization of JSON to Java classes, we shall use a library named Jackson (JSON parser for Java). Jackson is an open-source project led by FasterXML, LLC. Combining these libraries with the business logic will lead us to the desired results of seamlessly sharing content peer-to-peer without creating any dependency on the cloud or an external system.

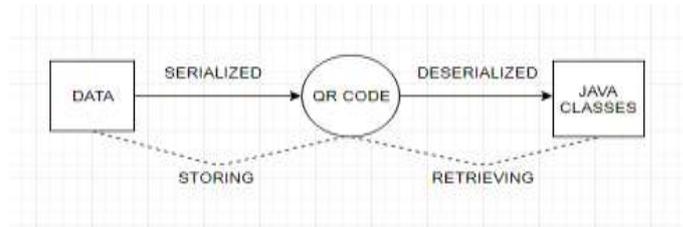


Figure - 1

5. ARCHITECTURE

The application will provide the user with two choices whether to generate QR code or receive data via someone else's QR code, i.e. scan an identity.

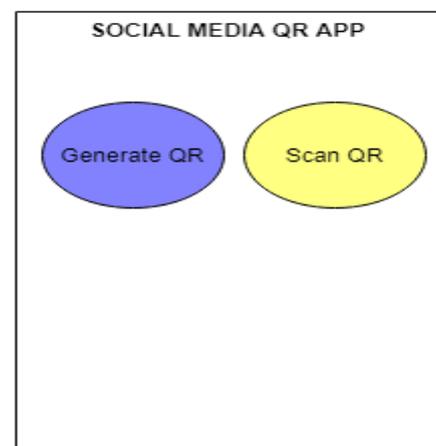


Figure - 2

If the user is using this application for the first time, then the application shall prompt the user for their details. Details will include his name, company name, phone number, email id, city, Facebook username, Instagram Username or some other social media handle that is supported. Here Company Name would be an optional choice.

Generate QR
Enter Name:
Enter Company Name:
Enter Phone Number:
Enter Email:
Enter City:
Enter Facebook Username:
Enter Instagram Username:

Figure - 3

After the user enters all the details, that person will be registered in the application server's database. Therefore, the next time there will be no need to enter his details again as they are already persisted.

To scan QR user will have to press on 'Scan QR' button. The output will be something like this:



Figure - 4

After QR is scanned, user will have the choice, on which portals to add this person. Users can add the scanned person on their phone as a contact, on Facebook, Instagram, or other platforms. User can add on all the portals mentioned above or some of them, depending on the requirements of the user.



Figure - 5

Clicking on add will connect both the users. However, for security purposes, there will be first a confirmation request on the second user if he really wants the first user to connect with him on all the platforms.

6. CONCLUSION AND FUTURE SCOPE

The next iteration on the development of this application shall allow the user to make their profile, which will monitor and collect usage data (usage data of both, scanning and creating a QR code). By requiring the users to make an account will help the classification of the monitored data better. Account for each user will allow us to provide a user-specific dashboard where they can see useful insights from the data which the application has started collecting.

Assuming a decent number of people are using the application. The application will be dealing with a great amount of data. A simple client-server architecture will help convert the data into information. The information gained can now be used in combination to provide intelligence to the user. For instance, if a person has generated a QR for his contact information and had put on the QR code on a website. Now, with the help of analytics performed on the data collected, the person can find out people from which country or continent are scanning the contact details the most. Maybe for the following use case, if the person is a celebrity, then he or she may start promoting them in countries or continents where they lack publicity.

Artificial intelligence and statistics can help to calculate the forecasts on multiple factors using the insights and data collected. This may include calculating the expected number of views or QR-Code scans in the upcoming 'n' number of days.

Therefore, integrating the application with web server architecture, data collection and applying artificial intelligence and statistics on the data will help the application grow and keep up with the requirements of the 21st century.

REFERENCES

- [1] <http://www.researchguru.net/volume/Volume%2012/Issue%204/RG15.pdf>
- [2] <http://www.indianjournalofmanagement.com/index.php/pijom/article/view/119401>
- [3] <https://www.repository.law.indiana.edu/cgi/viewcontent.cgi?referer=https://scholar.google.co.in/&httpsredir=1&article=3504&context=facpub>
- [4] K. Elissa, "Title of paper if known," unpublished.