

E-Authentication System with QR, OTP & Aadhar



Introduction

- In the proposed scheme, the user can easily and efficiently login into the system.
- We analyze the security and usability of the proposed scheme, and show the resistance of the proposed scheme to hacking of login credentials, shoulder surfing and accidental login.
- Once the user selects the authentication type as QR Code, then system will generate a QR Code and send it to user's mail id over internet.
- If user selects OTP, then SMS will be sent on his/her registered mobile number.
- The last authentication will be the Aadhar at final stage of login through which user is truly identified.
- If the user passes the authentication, then system will redirect to the main page.

Scan the QR code with your TOTP app (Google Authenticator, Authy, LastPass, OTP Auth, FreeOTP, Duo Mobile, Microsoft Authenticator etc)



If you can't use the QR code, enter the text code below to the app

7WI2 GQGG NJ73 YNGD

Please enter your one-time password

1	2	3	-			
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OK Cancel



Aim & Objectives

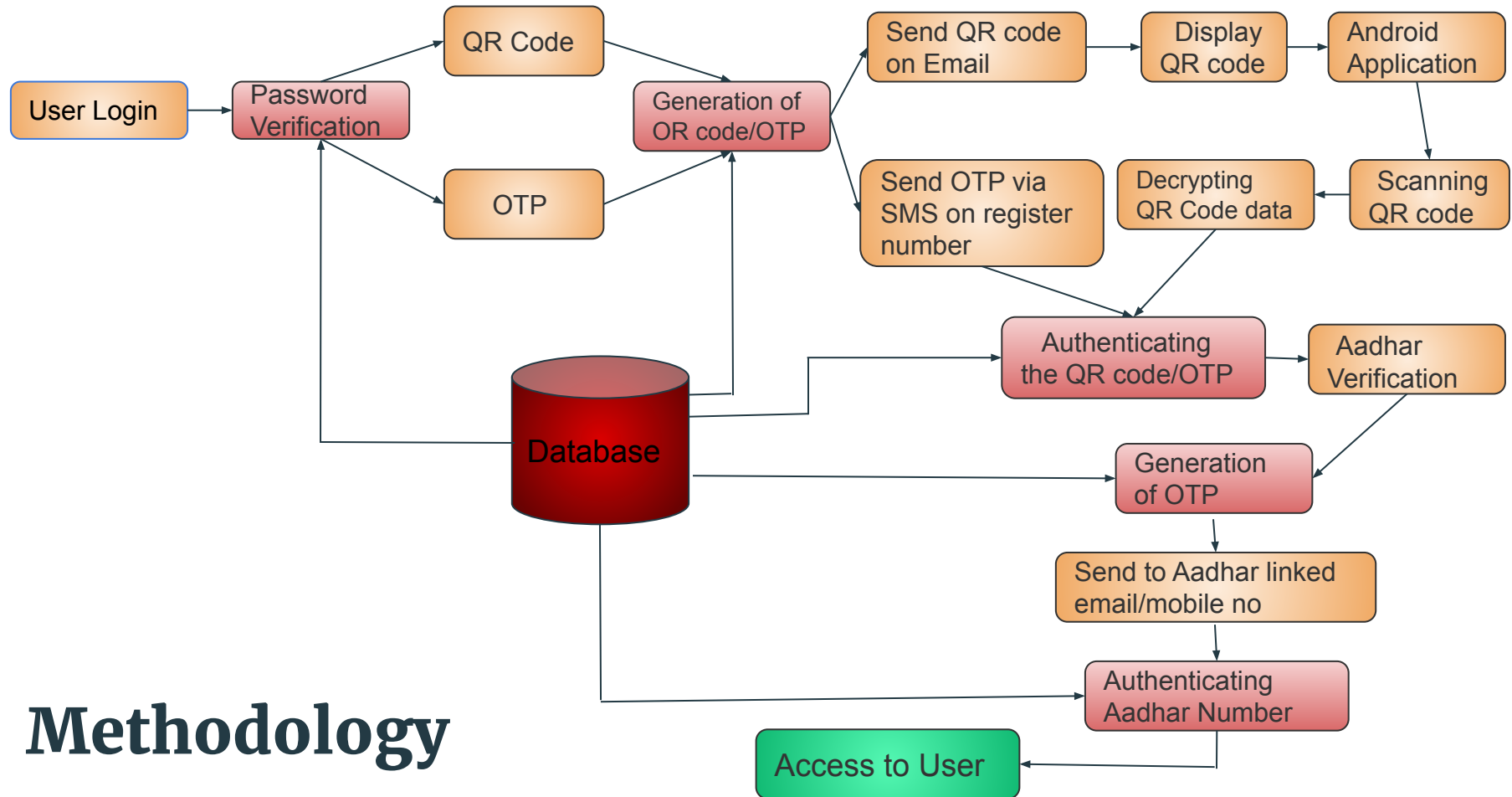
The aim of this project is to develop an E authentication system using QR code, OTP & Aadhar.

The research objectives of this proposed project is :

1. Develop anti-form grabbing technique to encode the user inputs as they are being entered.
2. Implement an authentication mechanism using One Time Password (OTP).
3. Develop a medium that make use of Email from the server for identity **Verification**.
4. Make use of Aadhar Uidia for unique identification.

Research Motivation

- The financial services industry has become a primary target of cyber-attacks on a global.
- Cyber criminals are using newer and more advanced methods to target online users.
- What makes some online attacks difficult to detect from the client side is that any activity performed seems as though it is originating from the legitimate user's web browser and with this, it silently changes the information of the user's account details to the attacker's account details which is most worrying.
- The losses attributed to financial fraud are alarming.



Methodology

Literature Survey

- OTP Authentication was introduced in **1980** by **leslie lamport** and QR code was invented in **1994** by Japanese automotive company **Denso Wave**.
- **April 2020** as a fast web framework is being created and individuals are informationized, even the budgetary undertakings are occupied with web field. In PC organizing, hacking is any specialized exertion to control the ordinary conduct of system associations and associated frameworks.

Research propose another Online Banking Authentication framework. This confirmation framework utilized Mobile OTP with the mix of QR-code which is a variation of the 2D standardized identification

- By the latest research of **July 2022** by Published in **International Journal of Engineering Research & Technology (IJERT)** of project **Triple OTP Authentication** which includes first otp through email, second by email which is linked to aadhar and third otp from nominee which include QR scanning which will generate otp after the nominee enter its email and password which makes the account safe but has **many drawbacks that must be noticed**.

Advantages & Disadvantages

❖ **Advantages of the Proposed Project:**

- Helps users to login into their account more securely.
- Stalker won't be able to collect the password via shoulder surfing.
- Complex password technique with easy user interface.

❖ **Disadvantages of the Proposed Project:**

- Requires an active internet connection.

Applications :

- This application can be used by the banks for login into internet banking
- This application can also be used in exam portals.
- Web Applications login authentication page we can ask for e- Authentication.

Reference Link:

- <http://ieeexplore.ieee.org/document/6982784/>



Conclusion :

- The Utilization of electronic banking services and exam portals is expanded step by step in everyday life and existing internet banking and internet exam portals required the use of additional security as aadhar authentication or a security card from each bank or exam organization which may or may not coordinate present day mobile condition.
 - In Electronic monetary administration the significance of security resembles two sides of coin. It can't be given thinking about the appear on one side of a coin. It subsequently , we ought to be looked for wellbeing gadgets to meet all simplicity and security of electronic money and exam data related administrations.
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