

CorgKey

A Primary FIDO Authenticator App

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Background

Password-based authentication is ubiquitous throughout the web despite it being inconvenient for users and carrying a number of security risks. Without proper security infrastructure, users deal with memorizing passwords, increasing the risk of getting locked out of their computers, accounts, servers, workplace, and even automobiles. Because of the burden of password-memorization, users often use insecure methods to keep track of their passwords.

Malicious actors can use these vulnerabilities to execute phishing attacks, stealing users' credentials and gaining access to their information and accounts. The risk posed by these attacks necessitates the use of additional security measures.

Existing measures like two-factor authentication add some security, but do not completely eliminate vulnerabilities and often come at the expense of convenience.

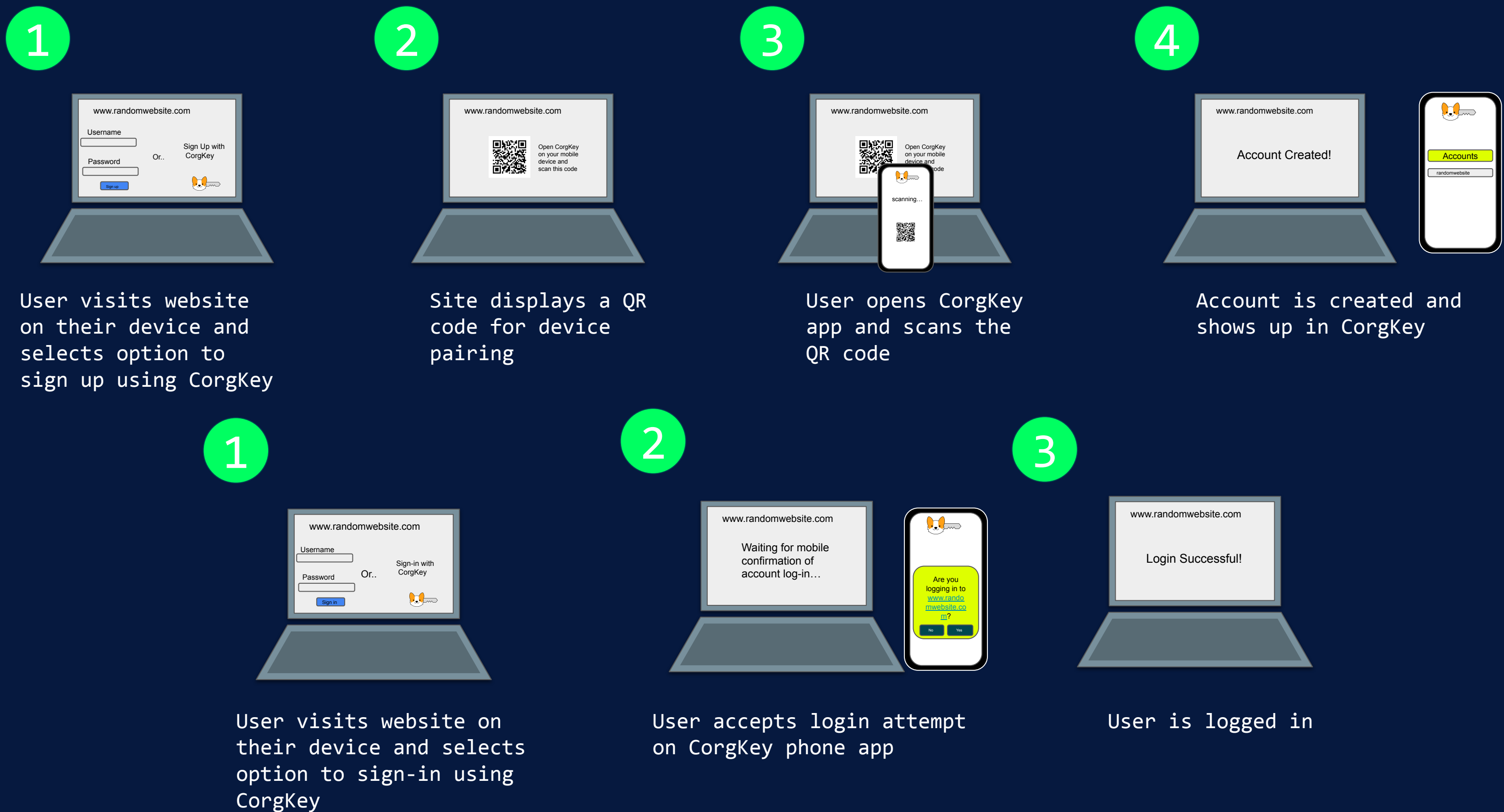
Solution

CorgKey serves as a primary authenticator, meaning that a user would not have to deal with memorizing passwords nor be inconvenienced by 2FA apps or SMS codes. Upon their first visit to a website on their computer, users will be prompted to create an account on their mobile application with minimal interaction and will not need to come up with their own credentials. Upon future visits, users will be able to log into the website by authorizing the attempt on their phone, rather than manually entering their username and password.

Future Improvements

To further minimize verification steps that require interaction with the app, there should be an option for a user to log-in via desktop to their website accounts simply if their phone is nearby. To do this, the app could remember "trusted devices" and utilize Bluetooth Low Energy (BLE) to automatically transmit credentials. This would remove the cumbersome step of having to pull out your phone and click a button while still ensuring that you are the person that is trying to log-in to your account.

User Flow



Technologies Used



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