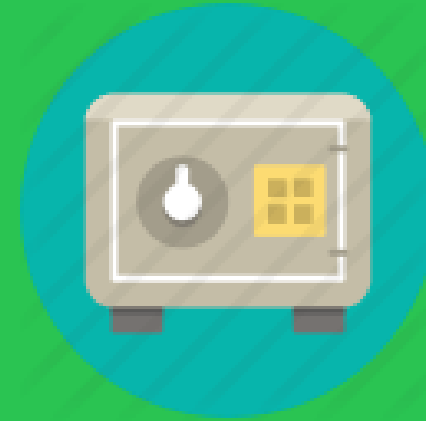




K.O.D. Inc

What is Quid

Quid is a mobile application that securely stores users passwords directly to their mobile device.

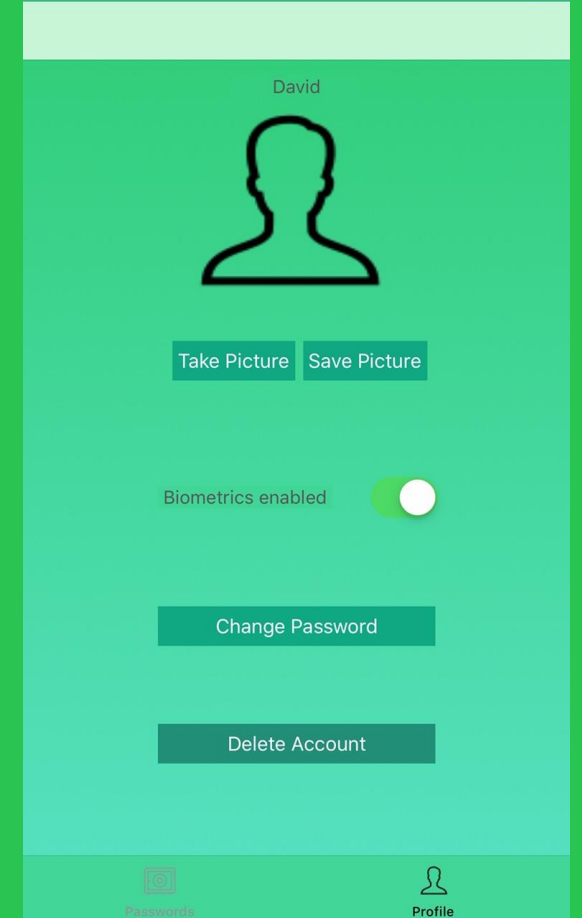
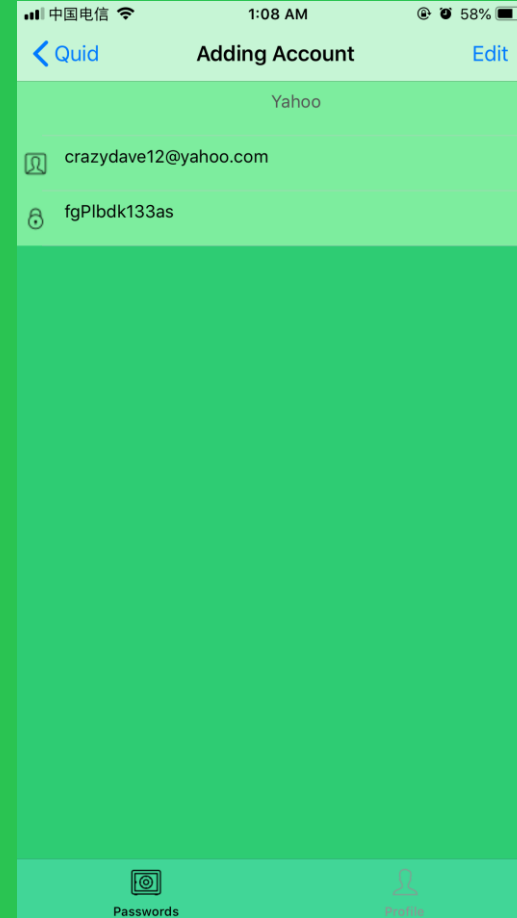
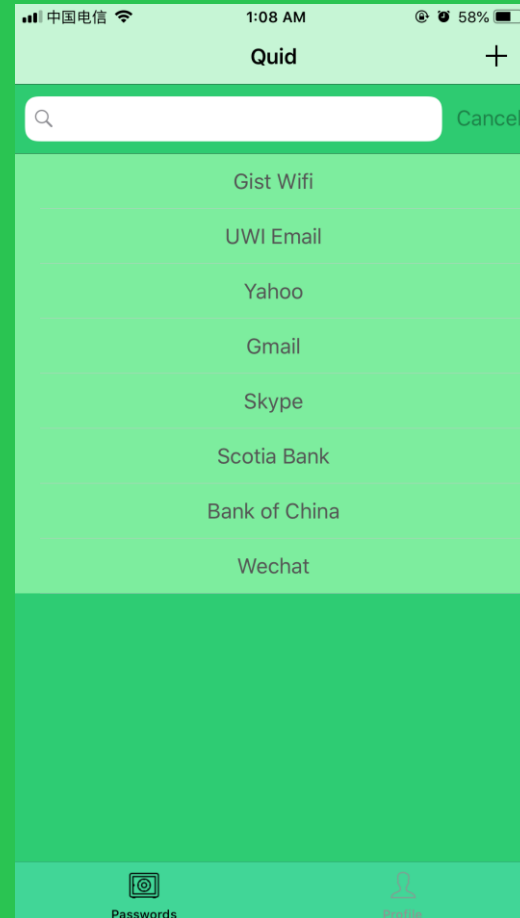
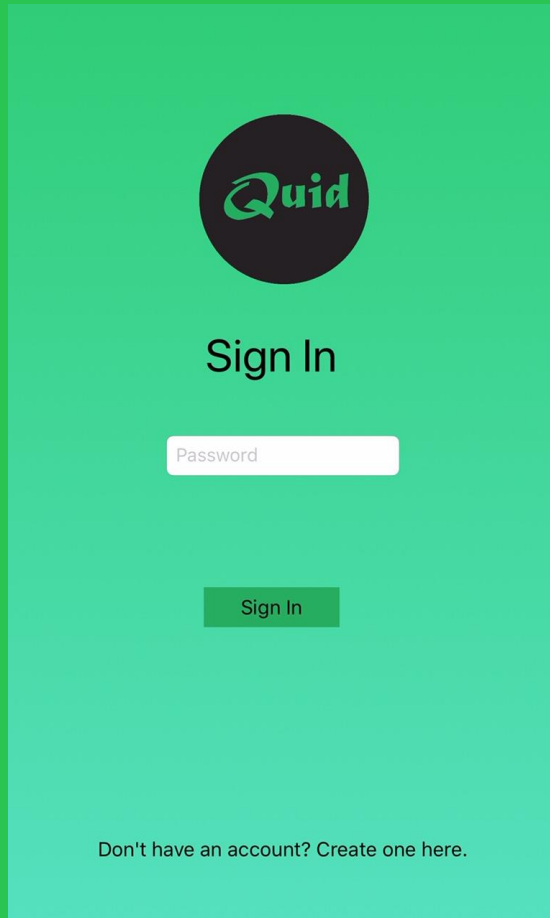


Motivation

- ❖ Reuse of the same password
- ❖ Strong Passwords
- ❖ Numerous passwords
- ❖ Database leakages
- ❖ Annoying ads



User Interface



AES 256

- ❖ Symmetric keys
- ❖ Robust
- ❖ Commercial Usage



Code Implementation

```
func randomString(length: Int) -> String {  
    let letters = "abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789"  
    return String((0..}
```

```
func encryption (string: String, secret: String) -> Data {  
    let aes = try? AES(keyString: secret)  
    let encryptedData: Data = try! aes!.encrypt(string)  
    return encryptedData  
}  
  
func decryption (encryptedData: Data, secret: String) -> String {  
    let aes = try? AES(keyString: secret)  
    let decryptedData: String = try! aes!.decrypt(encryptedData)  
    return decryptedData  
}
```

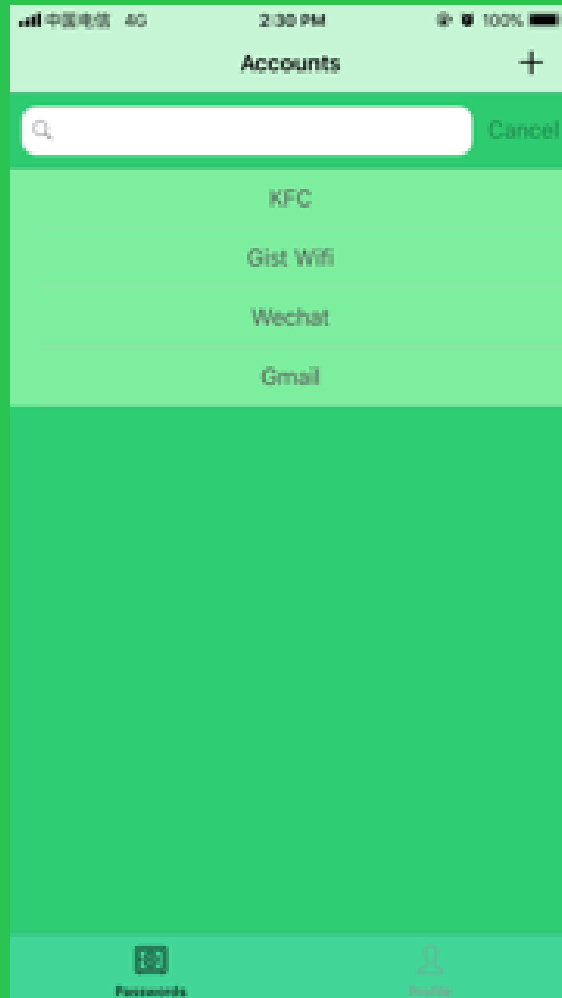
```
let secret = randomString(length: 32)  
user.setUserSecret(value: secret)  
  
let encrypt = encryption(string: password!, secret: user.getUserSecret())  
user.setPassword(value: encrypt)
```

Realm Database

- ❖ Speed
- ❖ Persistent engine
- ❖ Ease of usage
- ❖ Good Scalability



Realm Database



The screenshot shows a Realm database viewer interface. The left sidebar lists the database schema: 'Credentials', '._Class', '._Permission', '._Realm', '._Role', and '._User'. The 'Credentials' table is selected and highlighted in blue. The main area displays a table with the following data:

title	username	password
KFC	ibank	<Data: 32 bytes>
Gist Wifi	hake234	<Data: 32 bytes>
Wechat	grindqr@gmail.com	<Data: 32 bytes>
Gmail	student718@gmail.com	<Data: 32 bytes>

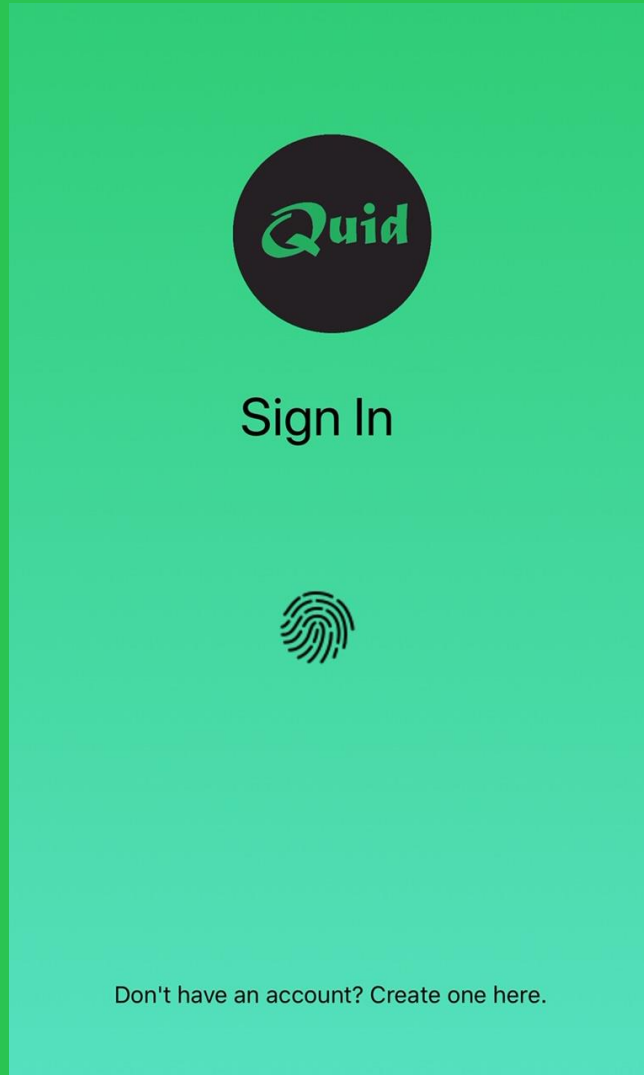
Biometrics

- ❖ Convenience
- ❖ Strong authentication
- ❖ Difficult to fake

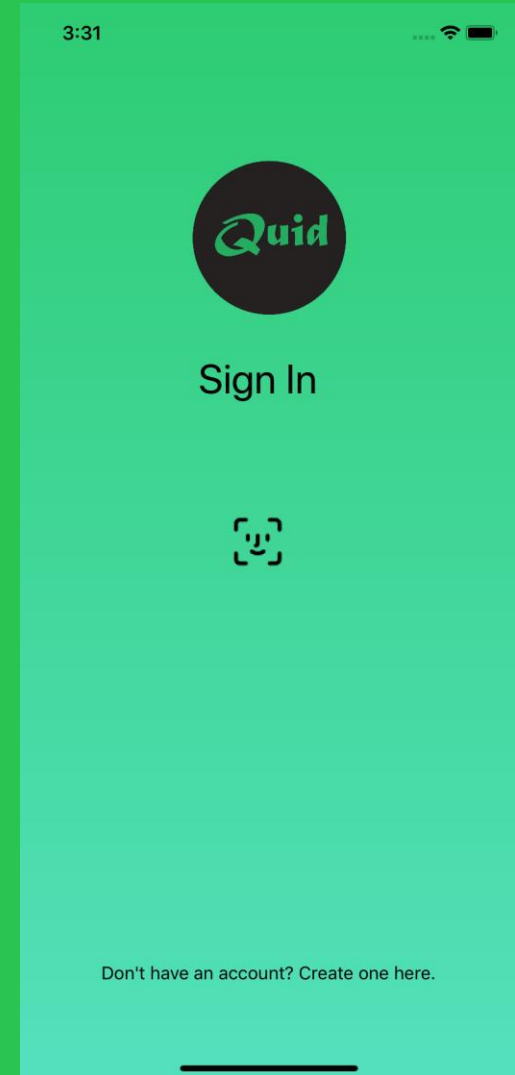


Biometrics

Iphone 6S plus



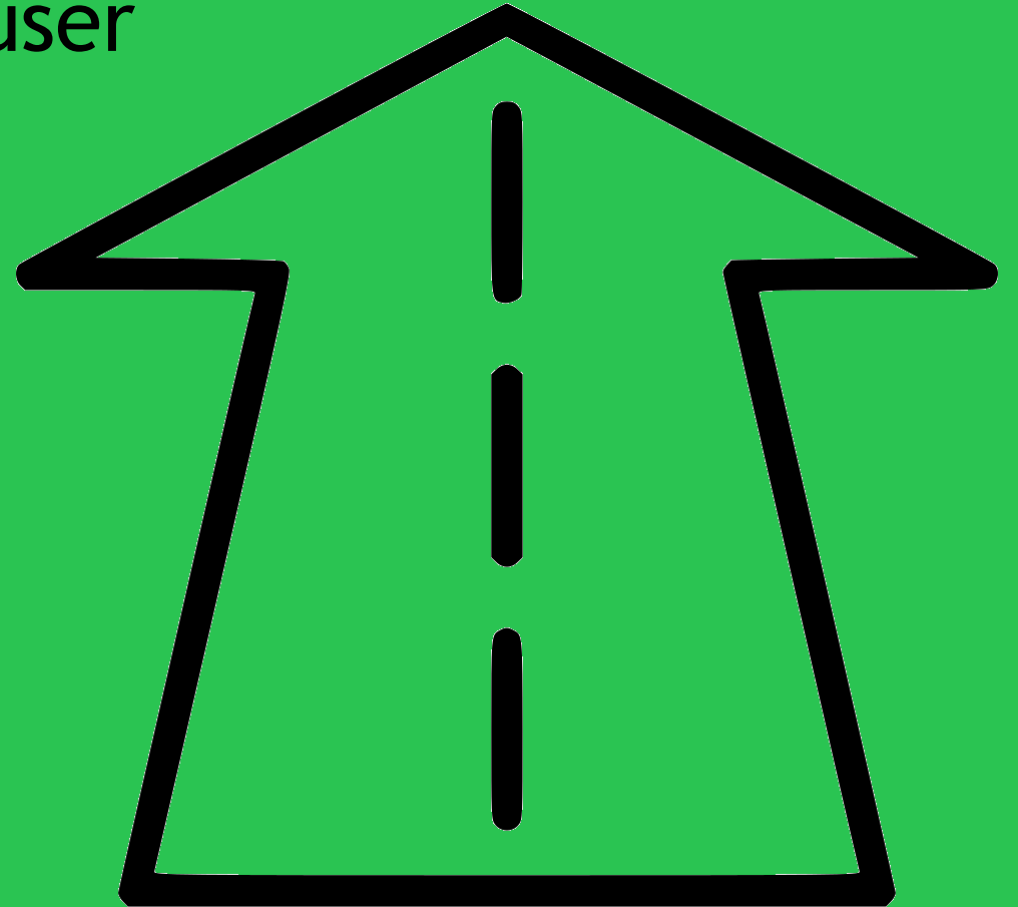
Iphone Xr



Demo

Future Improvements

- ❖ Suggest strong passwords to the user
- ❖ Auto login for websites and apps
- ❖ Synchronization
- ❖ Android version
- ❖ Browser extension



Thanks for
Listening