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QR CODE MOBILE APPLICATION

QR Code mobile application aims to reduce the amount of the registration time in several places like university or companies. It allows user to Create an account and insert its information in database. User can generate his information to QR code image that makes it easy for him to register for the upcoming events. Moreover, user has the ability to scan someone else’s QR Code and he can save it in Database as my Wallet View. My Wallet view displays all scanned QR Code that the current user made. Current user is the user who Created and Logged In with his account. Mobile application is developed using XCode 10.1 and Swift 4.  
  
 Mobile application has 5 View Controllers.   
1- Registration: where user can create an account by providing email address and password. That email will be saved for that user and it is not allowed for use by someone else.

2- Main View Controller. It provides 3 features that help user to do what he needs. First one it can move to QR Scan View controller. Second is the Account Info View Controller. And the third is my Wallet View Controller.

3- QR Scan View Controller: A new view controller will pop up that provide a square in the middle of the screen. When any qr code is filled in that square an alert message will display for user and it says if he wants to Save that information to the database or retake the action. By clicking save the scanned text will be saved to database as String.  
4- Account Info View Controller: Allows user to store their information by Name, Age, Job, and Email. After he stores it he can click on generate qr Code button that convert the entered data to QR Code image and it will be viewed in the same view controller. At the same time that user information will be uploaded to the database. If that user singed out and signed in again, when he opens my Account Info view controller his data will be automatically filled in the UITextfields.  
5-MyWallet View Controller: this view read the information from the database and display it in table view, that information are scanned from the current user who is logged in with his email.  
  
 Networking  
Firebase is used as our server because it is reliable and fast with high end performance. All the actions taken like signing in, saving data all will happens during the communicating between the mobile app and Firebase.

Challenges and solutions:

We have faced some tricky part while developing Qr Code app. Reading Qr code images and store it in Firebase as string took us sometime. We have solved this problem by thinking of algorithm that do the job for us. We have created an empty array named user array, we separated the scanned text by lines, and then we used for loop where that loop will store every string separately in user array, after that we make the first value of user array is equal to name, second value equal to year, third equal to job tittle, and lastly the fourth will equal to user’s email. After having that data, we upload it to firebase immediately. We did the same thing for my Wallet View Controller, by creating 4 arrays, name array, year array, job tittle array, and email array. After storing those arrays, we display the texts separately in Table View cell. So, the first index of name array will equal to first user name, the second name of name array is equal to the second user name.

Conclusion

This mobile application has improved our Swift coding, we are now ready to do more projects with XCode and Swift that has communication to networks.