Product Requirements Document – Vested Mobile App

Problem Statement: To add an additional layer of security and safety to the user's transactional data in the Vested app

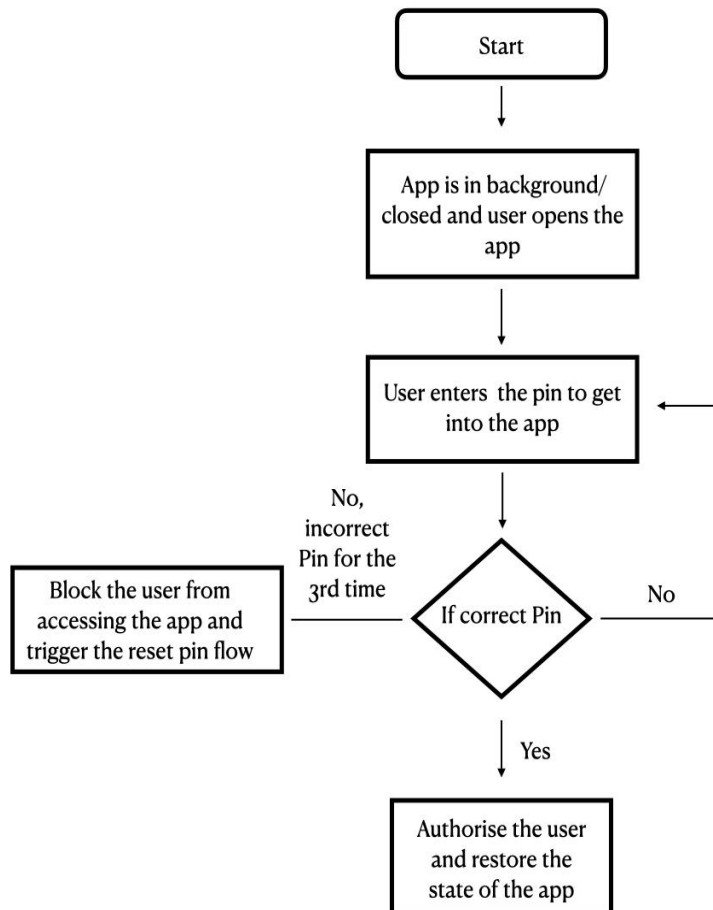**Proposed Solution:** Implement mandatory Pin entry on every launch of the app

Explanation:

Stock market investment for an individual is a private affair, most of the users would like to keep it that way hence adding an additional layer of security would resolve this problem.

Mechanics for the solution:

- Whenever the app is either started freshly or comes to foreground from background, show an UI where users should enter the Pin which opens the app and restores the activity
- User has to compulsorily set the Pin while signing up on the mobile.
- If user has registered via Web Client, and user installs the app; prompt the user to create and set a Pin after logging in for the very first time on the mobile app
- PINs should be Hashed in the backend. Whenever user enters PIN and requests Login after validation backend should send a flag which lets the user login into the in the front end.

Flowchart for the solution:

```
                          ┌─────────────┐
                          │    Start    │
                          └─────────────┘
                                 │
                                 ▼
                     ┌───────────────────────┐
                     │  App is in background/ │
                     │ closed and user opens  │
                     │        the app         │
                     └───────────────────────┘
                                 │
                                 ▼
                     ┌───────────────────────┐
                     │ User enters the pin to │◄──────┐
                     │    get into the app    │       │
                     └───────────────────────┘       │
                                 │                     │
        No,                      ▼                     │
      incorrect                 ╱╲                     │
     Pin for the              ╱    ╲        No         │
      3rd time              ╱        ╲ ─────────────────┘
┌────────────────────┐   ◄ If correct Pin ╲
│ Block the user from │    ╲            ╱
│ accessing the app   │     ╲        ╱
│ and trigger the     │      ╲    ╱
│ reset pin flow      │        ╲╱
└────────────────────┘         │
                               │ Yes
                               ▼
                     ┌───────────────────────┐
                     │   Authorise the user  │
                     │   and restore the     │
                     │     state of the app  │
                     └───────────────────────┘
```

Use Cases:

1. App is not running in the background, when user launches the app show the screen to enter the Pin
2. App is running in the background after user switches to another app, after coming back to Vested app show the screen to enter the Pin
3. App is running, user gets an interrupt for e.g., Phone call, after finishing the call show the screen to enter the Pin
4. App is running, app gets disconnected from the internet. After the connection is restored show the screen to enter the Pin
5. App is running; after N sec of inactivity, log the user out and show the screen to enter the Pin
6. App is running, it gets an update. After user updates the app; show the screen to enter the Pin
7. Switch Account Flow: When user is in PIN entry screen and wants to use a different account tapping on Switch Account should trigger the login flow
8. Forgot PIN flow: When user is in PIN entry screen and has forgotten the PIN or has been locked out due to 3 unsuccessful attempts, tapping on Forgot PIN should trigger the flow to reset the PIN

UI for the Pin Entry Screen:
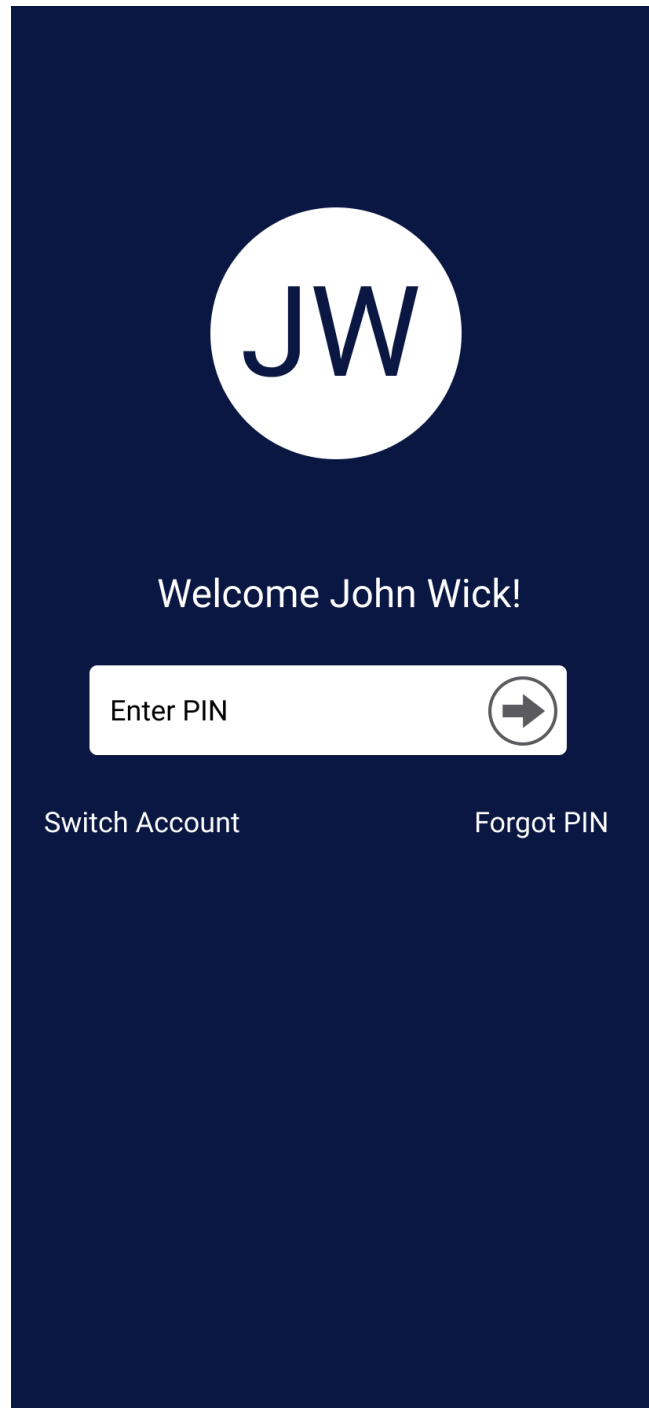
UI for the PIN Entry Screen when user enters a wrong PIN:

JW

Welcome John Wick!

Wrong PIN →

Switch Account   Forgot PIN
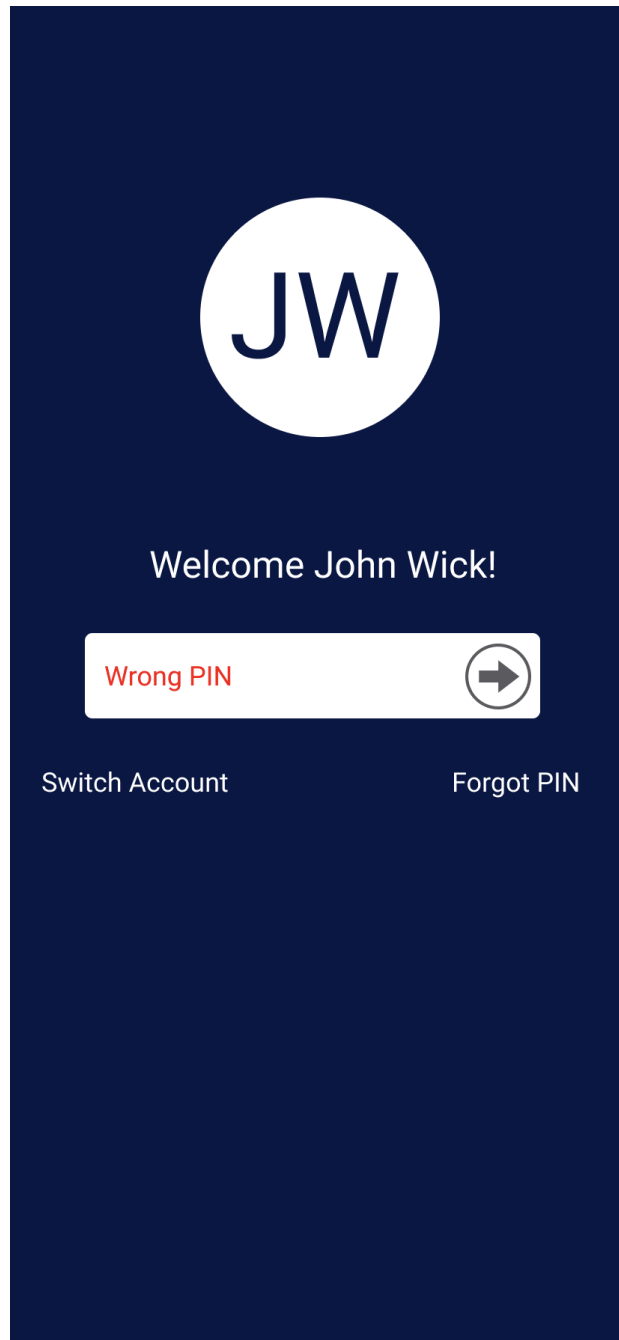
UI for the PIN Entry Screen when user is blocked after entering PIN wrong for 3 times: