Hi Vivek,

As discussed please find below the observations on Angle apps and details about automation framework.

The Email is organised in 3 sections:

1. Few general observations about the Angel Broking & Angel Wealth App. I was not able to browse Angel Partner interface app without login in.

2. Test cases automated

3. Explanation of Automation test framework using Page Object Model and Appium.

**General Observations:**

Angel Broking: The app is very exhaustive and includes a lot of functionalities

1. I liked the inclusion of Video tutorial at each screen but it’s not stable. I have seen occurrences where video is played half and it exists the screen abruptly.

2. In News section tapping on the news just opens the news in text only format in another screen. There should be a URL embedded which takes to original page of the news where complete news with images can be seen. It can be a web view without leaving current app.

Errors:

1. No confirmation when delete a symbol from "My Watchlist". The symbol is deleted once user presses Delete icon

2. On Login screen when we enter password less than 6 characters it shows error message as"Password should be between 6-12 char" which should not be the case as the User is already created and a appropriate error message like "Incorrect ID/Password" should be shown irrespective of length of password.

3. Transition from Whats New to forgot password is not smooth in Login help section. This is the case with all tabbed pages in moving from First to Last item and vice versa. Video attached (Angel\_Broking\_error\_03.mp4)

4. Error occurred while initializing YouTube player error message is seen many times while playing the Help videos. Video attached(Angel\_Broking\_error\_04.mp4)

5. Cannot see help videos in full screen

6. Scrolling in WebView displayed when select Open Account on login screen is not smooth (Video attached)(WebView\_Scrolling.mp4)

7. On Login screen entering invalid ID/Password of length 12 characters; gives error message as "Invalid parameter length". As this is login page only error message given should be "invalid ID password"

8. Navigation to and from Home screen to Dashboard is not smooth. There is a screen with Login button displayed in between which is the portfolio screen without login. (Angel\_Broking\_error\_08.mp4)

9. There is discrepancy in number of characters in User ID field. The login page accepts max 12 characters but selecting "Generate OTP" while accessing "Experience ARQ", "Portfolio" etc.. asks for User ID which accepts max 32 characters.

10. "You cannot access settings without login" prompt is seen when pressing back from "Subscriptions" screen under More options from hamburger menu (Angel\_Broking\_error\_10.jpg)

Angel Wealth:

1. No error message when select invalid PDF file for mutual fund statement when go to Mutual Funds/Upload CAMSand select any file other than CAMS statement

2. Goals deleted also appears while navigating. Video attached. (Angel\_Wealth02.mp4)

**Test cases Automated:**

1. Launch App and get title of app i.e My Watchlist

2. Open Login Page and validate all fields exists

3. Login in Invalid ID and capture error message

**Explanation of Automation test framework using Page Object Model and Appium:**

The framework is uploaded here””. Please export in Appium as a “existing Maven Project” to see the details.

Components used:

1. Appium: to automated test cases on device

2. Page Object Model: its a framework where UI elements are separated from Execution methods using, object oriented method, for easy handling of UI elements changing and modification of scripts

3. ReportNg: for generating detailed report

4. Maven: for easy maintainece of Dependancies and build management

5. TestNg: for defining test execution flow and test case management

Implementation:

1. Maven project was created and POM was modified to have testng, reportng, appium, java client, selenium, selenium stand alone server dependancies

2. 3 Java files were placed in 3 packages:

a. Package "base", Java file: "BaseTest.java"

This contains Appium initialization Methods and Setting Desired Capabilities in BeforeClass

It also contains stopping driver method in AfterClass

b. Package "pages", Java file: "LoginPage.java"

We can have many pages JAVA classes which contains UI elements and individual test methods for each page.

For example in this class we have methods to validate all functionalities on login page

We can also have UI elements seperated in the methods for easy modifications

c. Package "test", Java file: "Login\_test.java"

Here we have test cases under @Test annotations whose definitions are in Pages package.

3. TestNg.xml:

1. Overall test execution and reporting is controlled by this xml file

4. Running the test will execute the test cases with @Test annotations and provide report. Video attached.