



HOMEWORK

Subject: Software Testing

CMU-SE 303 GIS.

Subject: *Use the Ranorex Software to testing the project*

“Find type Triangle”

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Đà Nẵng, tháng 12 năm 2022



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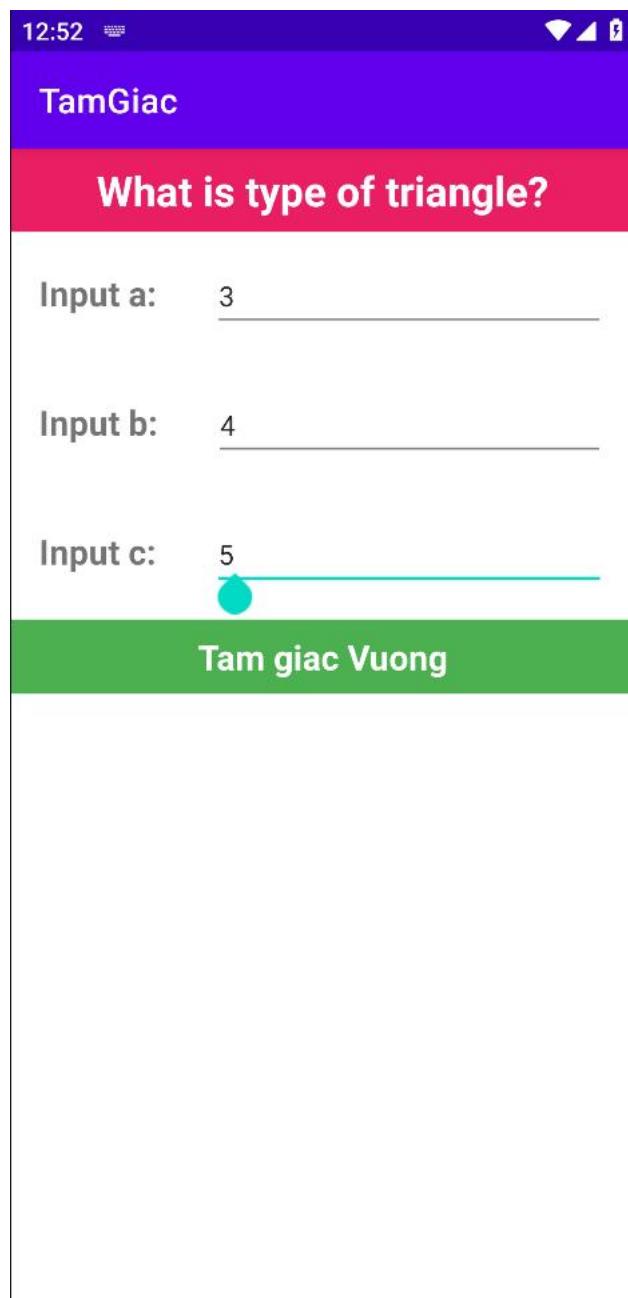
Introduction

a)The project

A software to solve quadratic equations.

Input: a b c

Output: type of triangle



Source code: In drop box

b) The Ranox Software

The Ranox Software is Android Automation Testing with Ranorex Application testing for native, mobile web, and hybrid Android apps on real devices and emulators.



Over View

A screenshot of the Ranorex Studio application window. The title bar reads "TamGiacTest - Ranorex Studio - (32bit)". The menu bar includes File, Edit, View, Project, Build, Debug, Search, Tools, Window, Help. The toolbar has icons for ADD, RUN, BUILD, SPY, and Default layout. The main area shows a "Projects" tree on the left with several recording files (Recording1.xrec through Recording18.xrec) and a "Module browser" tree below it. The central pane displays a "Test suite" table with two columns: "Item" and "Data binding / iterations". The "Item" column lists "Recording1" through "Recording18", and the "Data binding / iterations" column shows "Unbound variables: 5" for each recording. The bottom status bar shows "Ready", the system tray, and the date/time "04/12/2022 12:55 CH".

Design Test Case

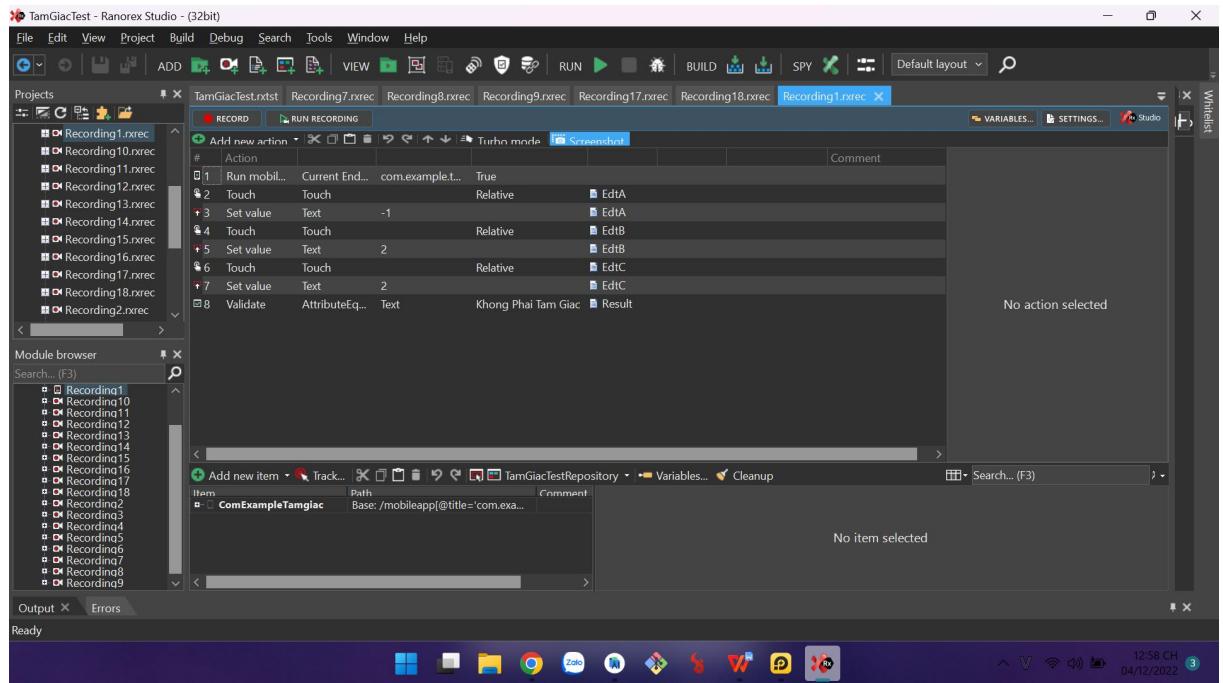
Black Box Testing – Boundary Testing.

STT	Input			Expected
	a	b	c	
1	-1	2	2	Không Phải TG
2	0	2	2	Không Phải TG
3	1	2	2	Tam Giác Cân
4	2147483646	1000000000	2000000000	Tam Giác Thường
5	2147483647	1000000000	2000000000	Tam Giác Thường
6	2147483648	1000000000	2000000000	Không Phải TG
7	1	-1	2	Không Phải TG
8	1	0	2	Không Phải TG
9	2	1	2	Tam Giác Cân
10	1000000000	2147483646	2000000000	Tam Giác Thường
11	1000000000	2147483647	2000000000	Tam Giác Thường
12	1000000000	2147483648	2000000000	Không Phải TG
13	1	2	-1	Không Phải TG
14	1	2	0	Không Phải TG
15	2	2	1	Tam Giác Cân
16	1000000000	2000000000	2147483646	Tam Giác Thường
17	1000000000	2000000000	2147483647	Tam Giác Thường
18	1000000000	2000000000	2147483648	Không Phải TG

Scripts

Step 1: Enter value in Edit-text_A, Edit-text_B, Edit-text_C..

Step 2: Result will Display in Text View.

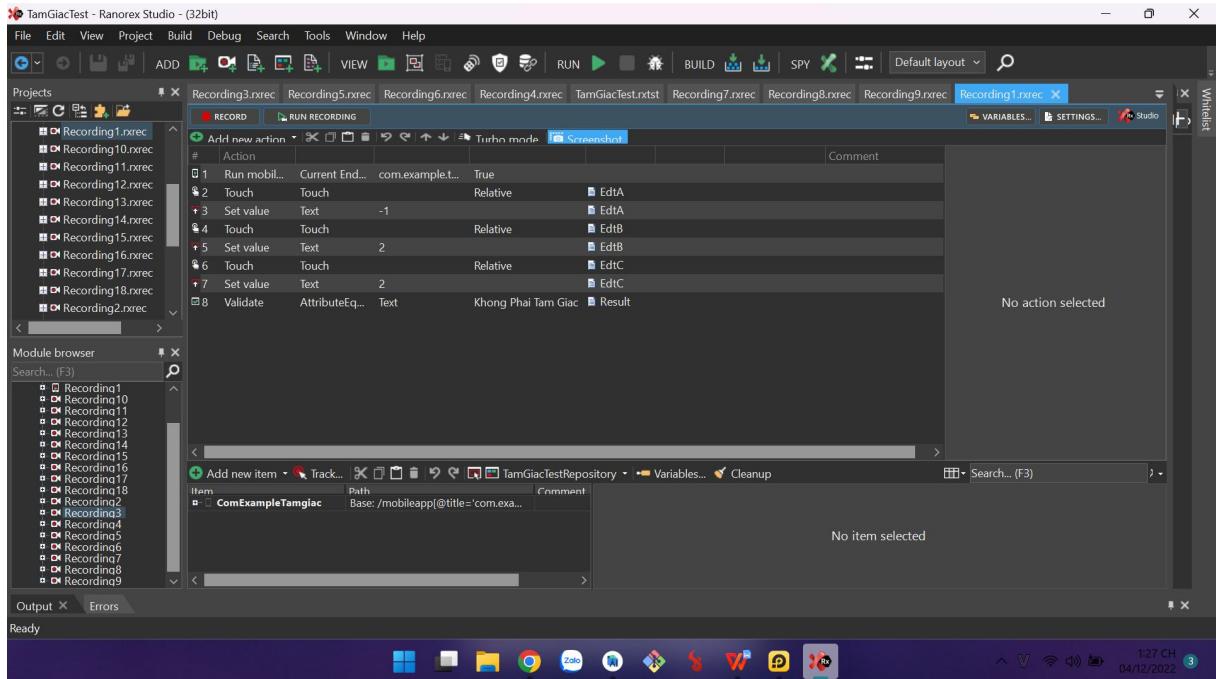


Scripts in Ranorex

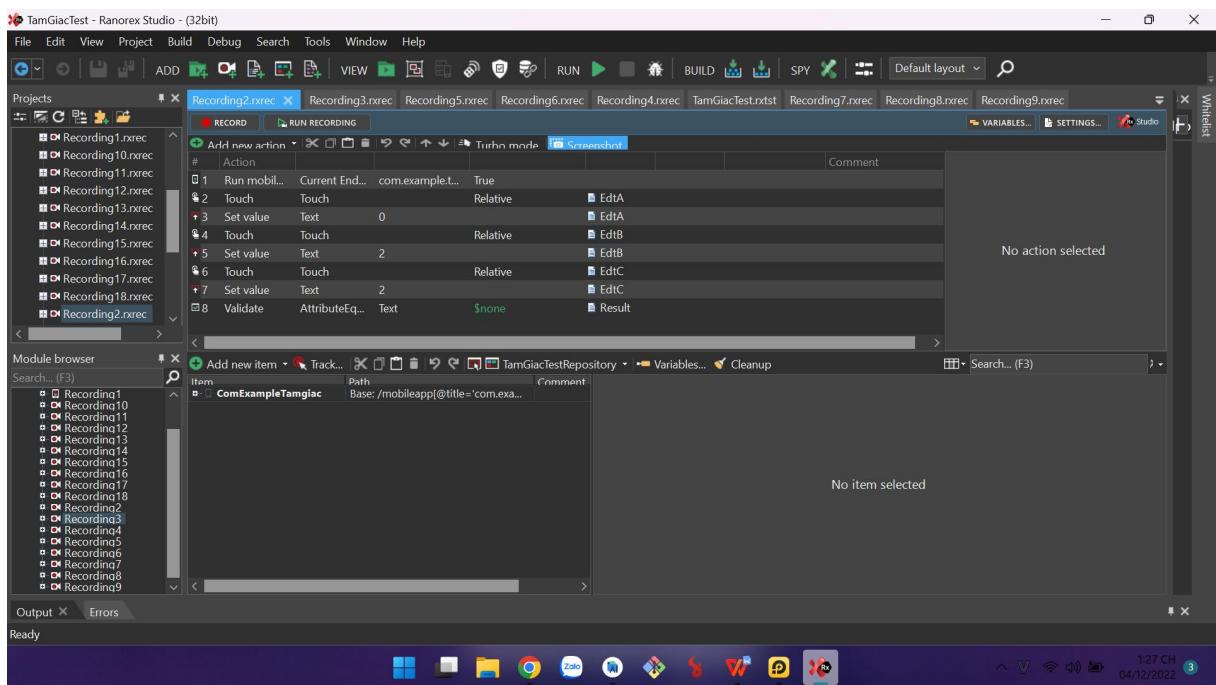
Running

a) Set test case to run

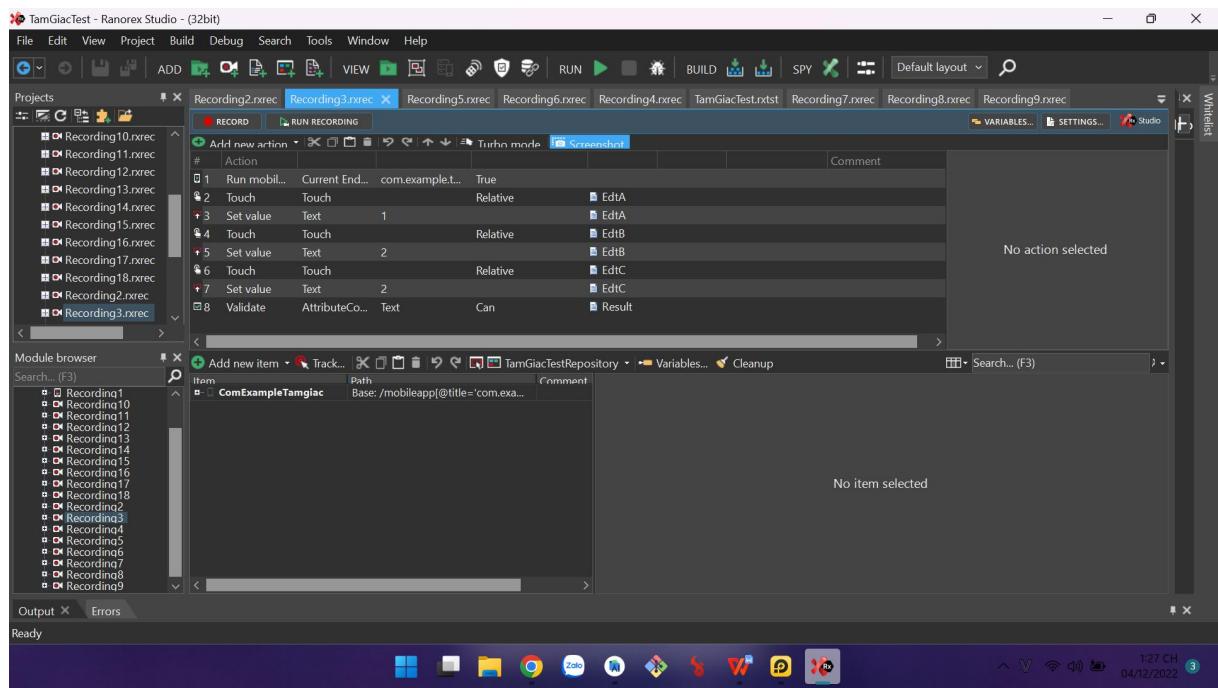
Test case 1:



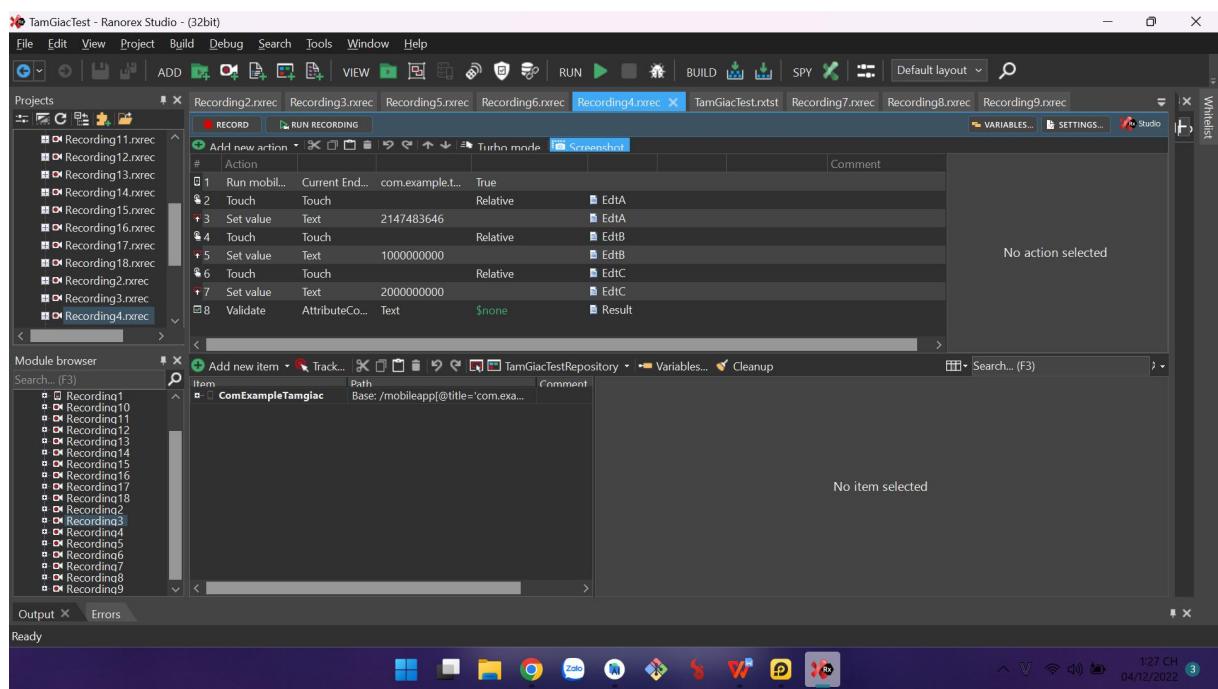
Test case 2:



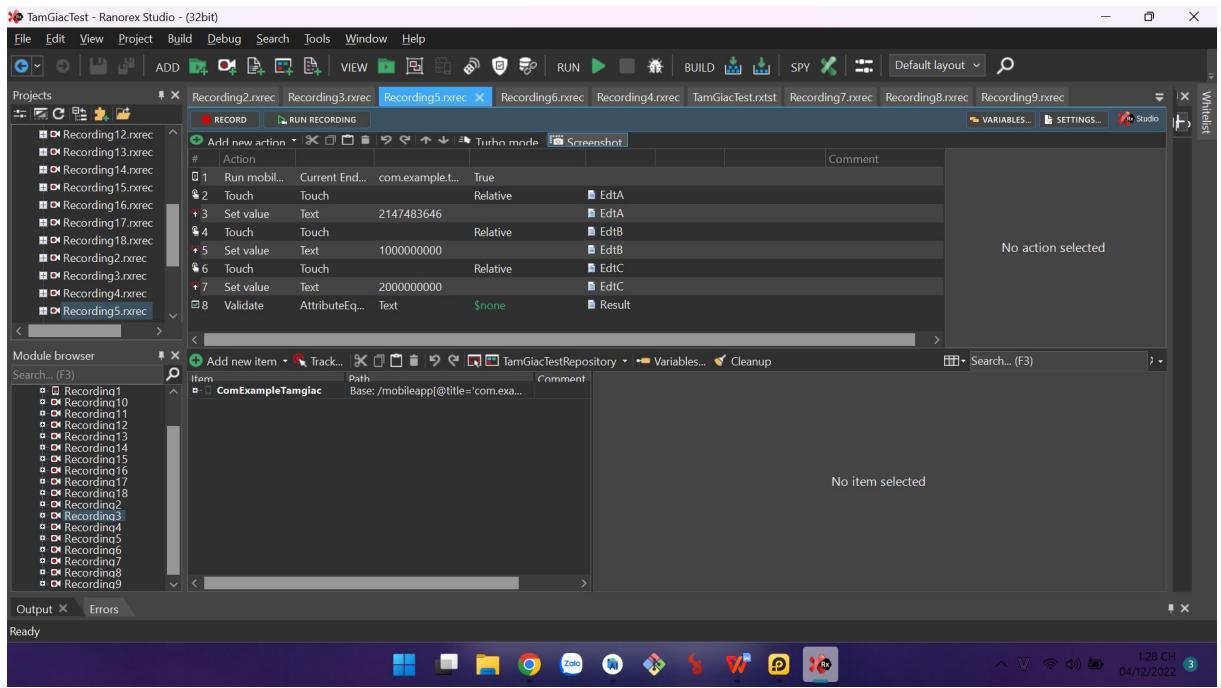
Test case 3:



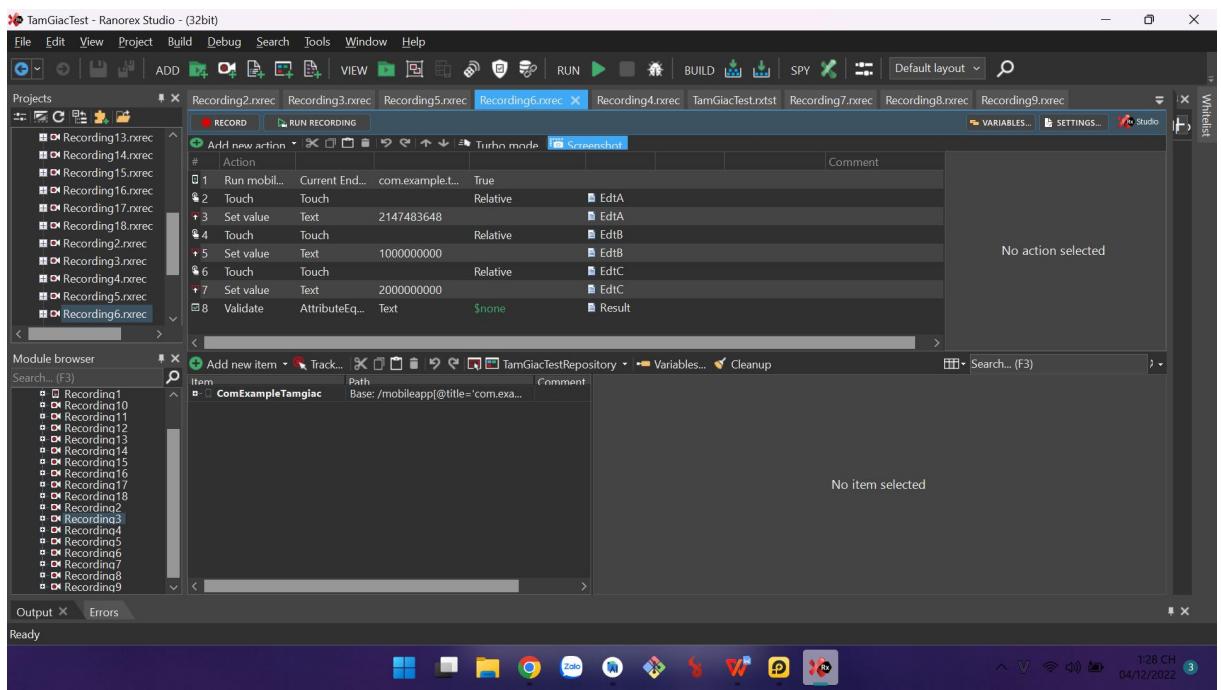
Test case 4:



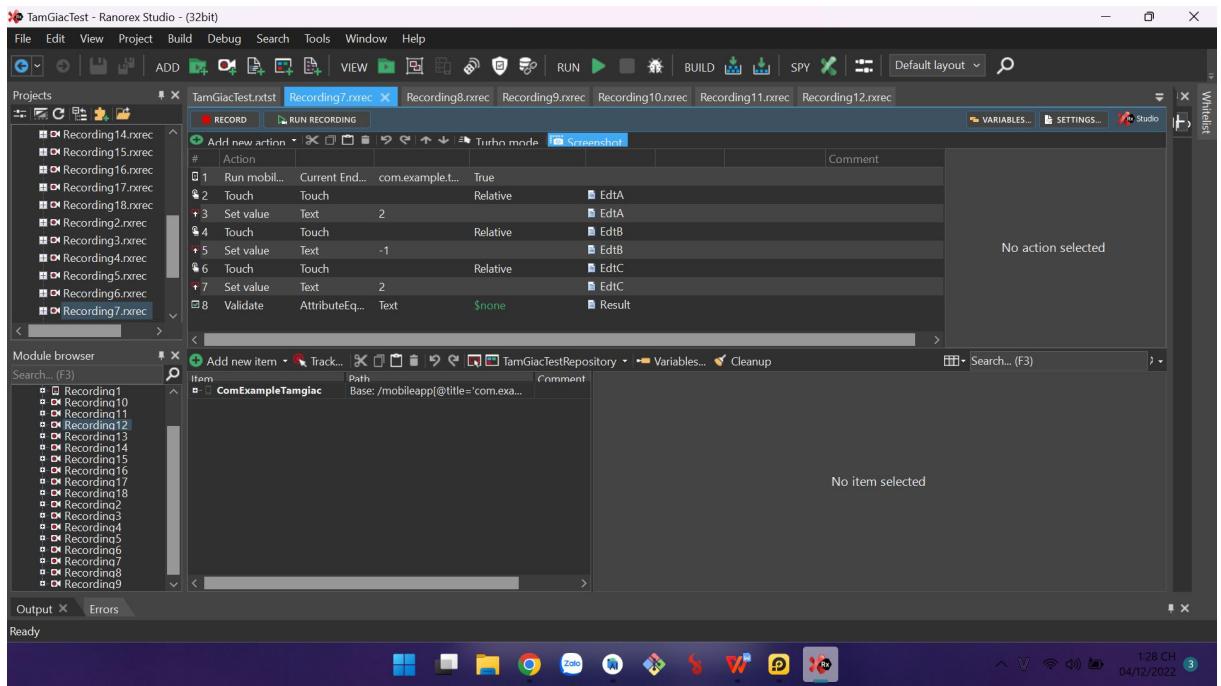
Test case 5:



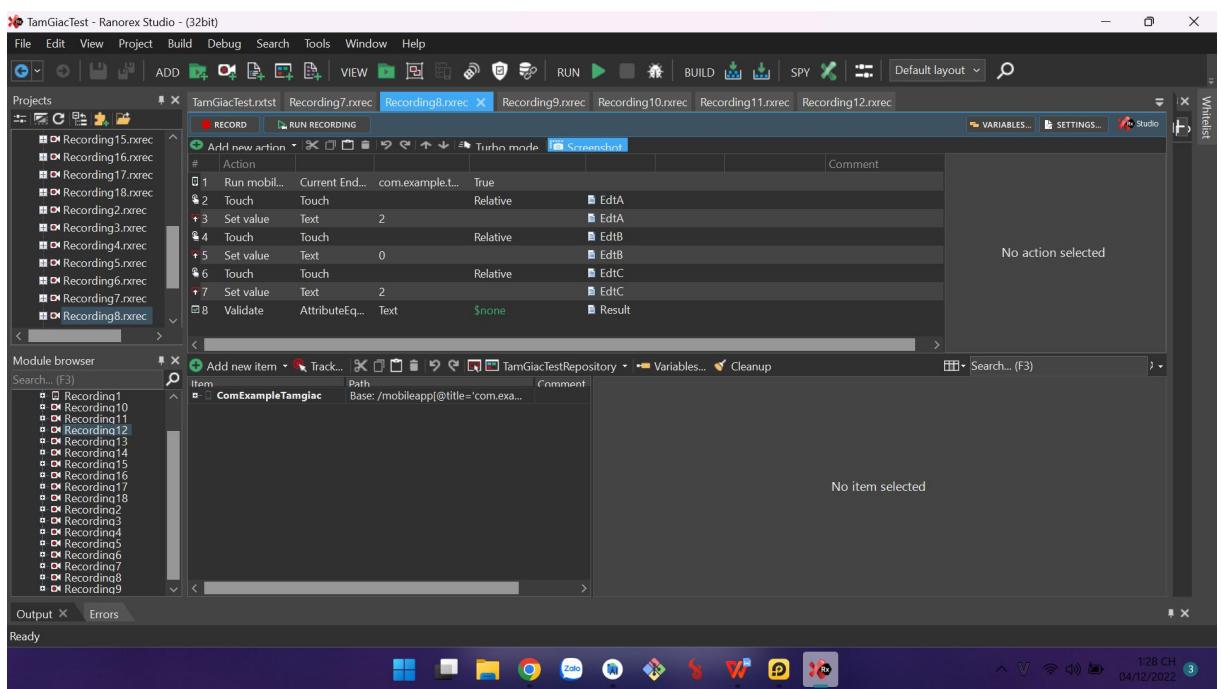
Test case 6:



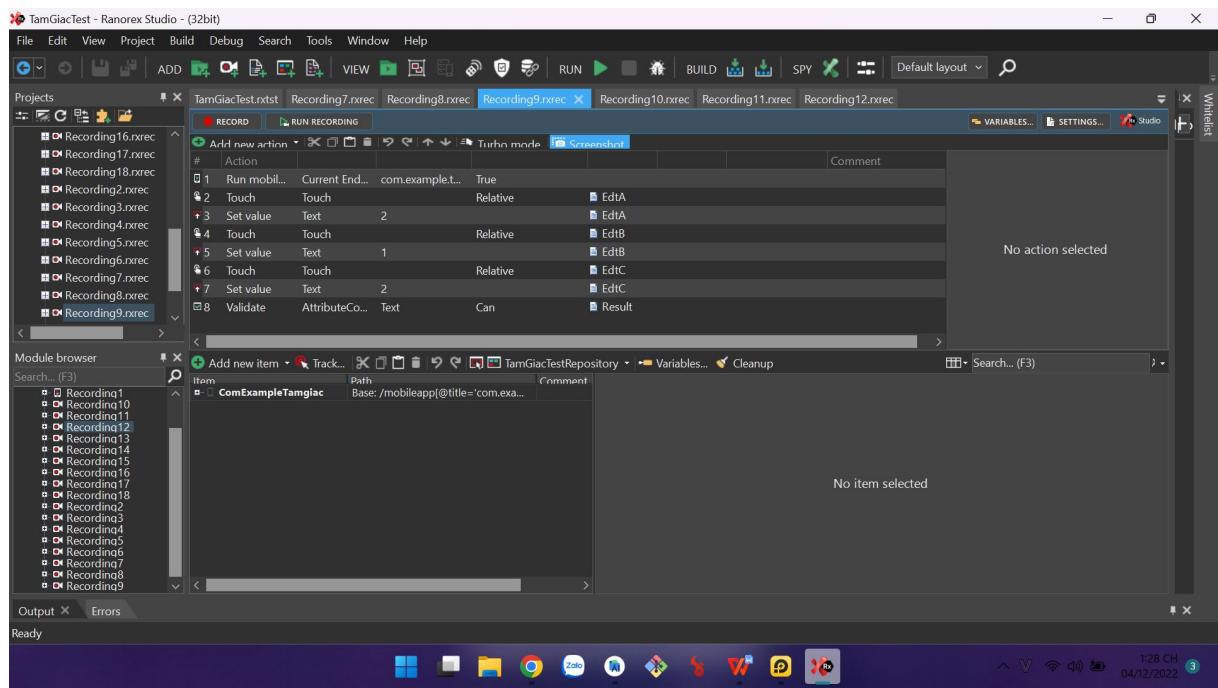
Test case 7:



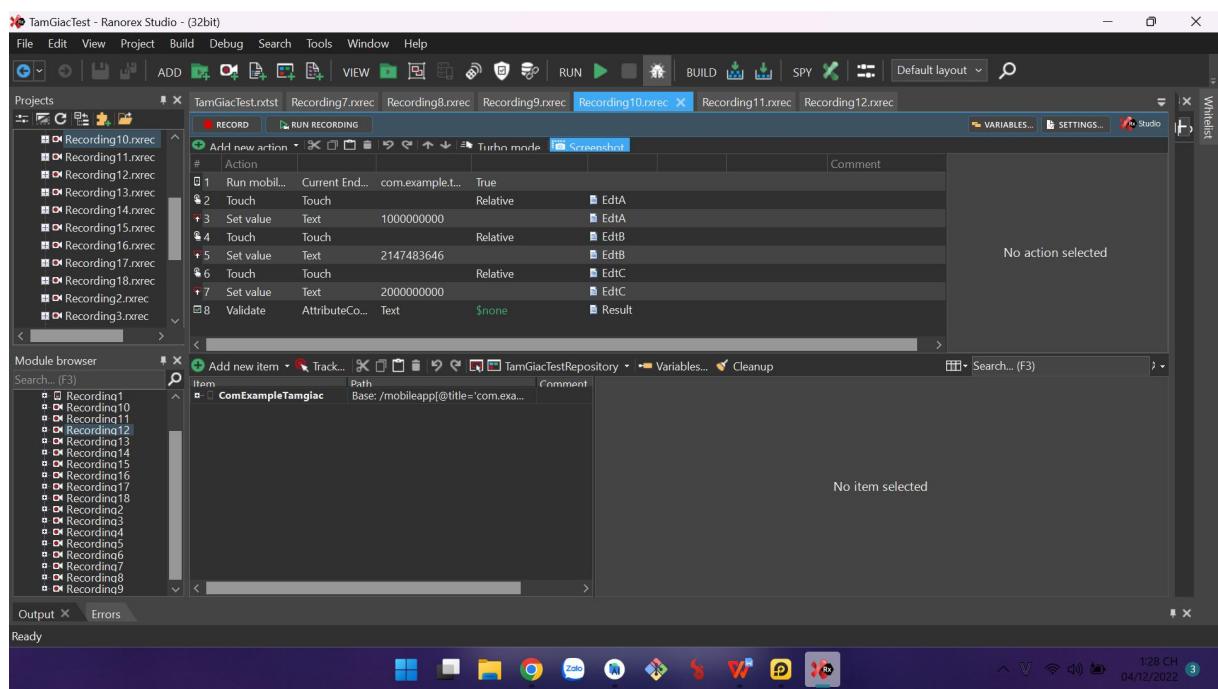
Test case 8:



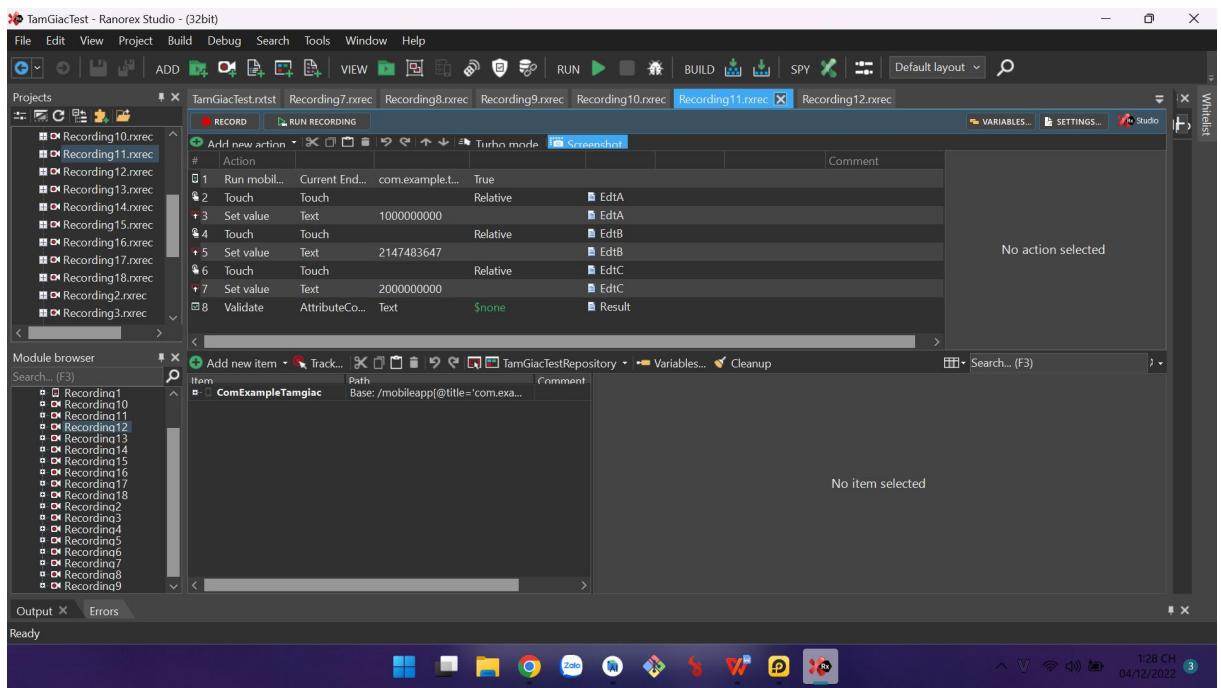
Test case 9:



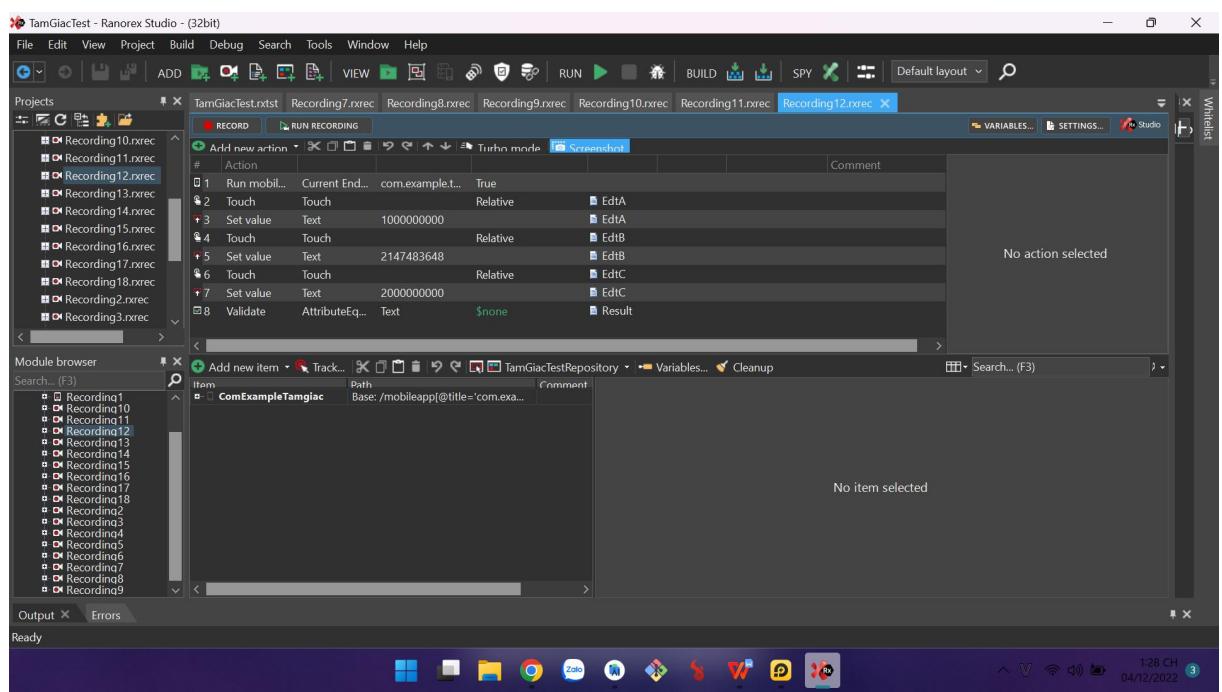
Test case 10:



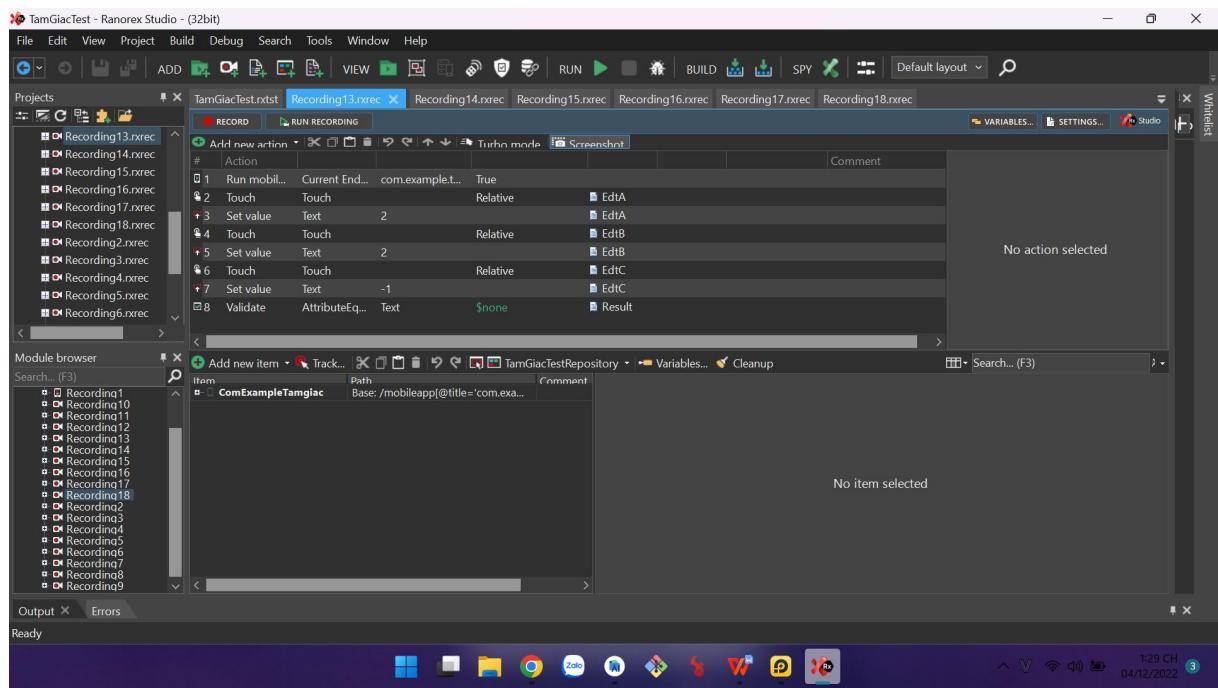
Test case 11:



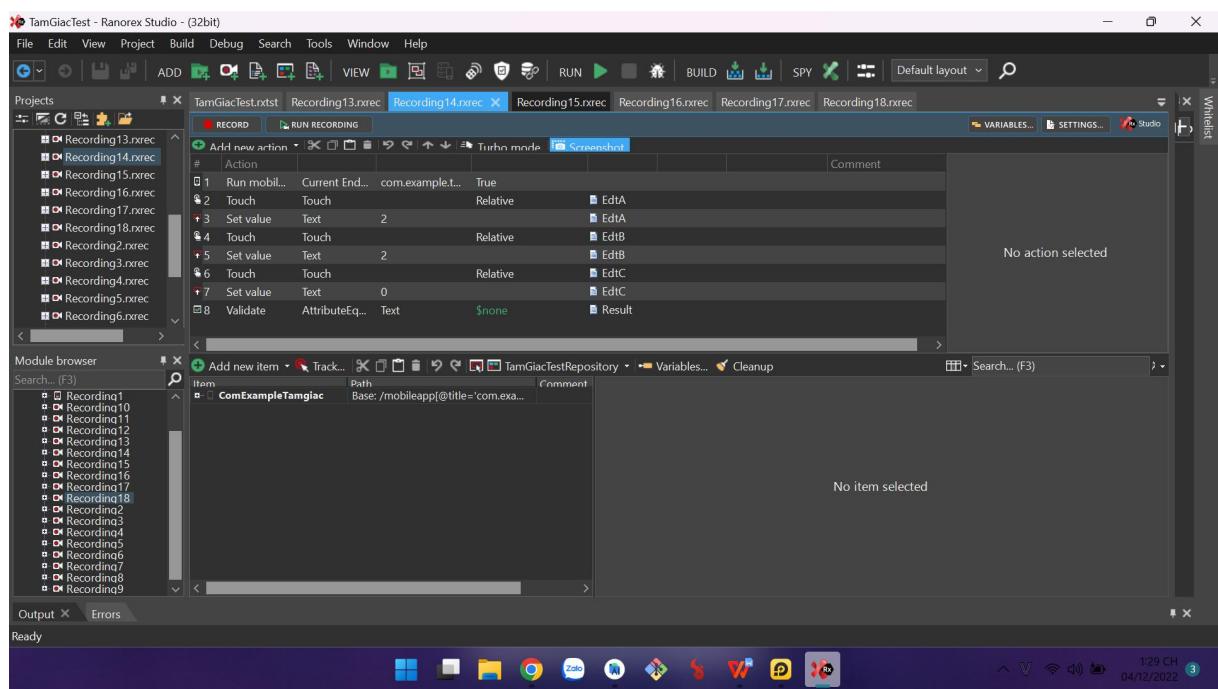
Test case 12:



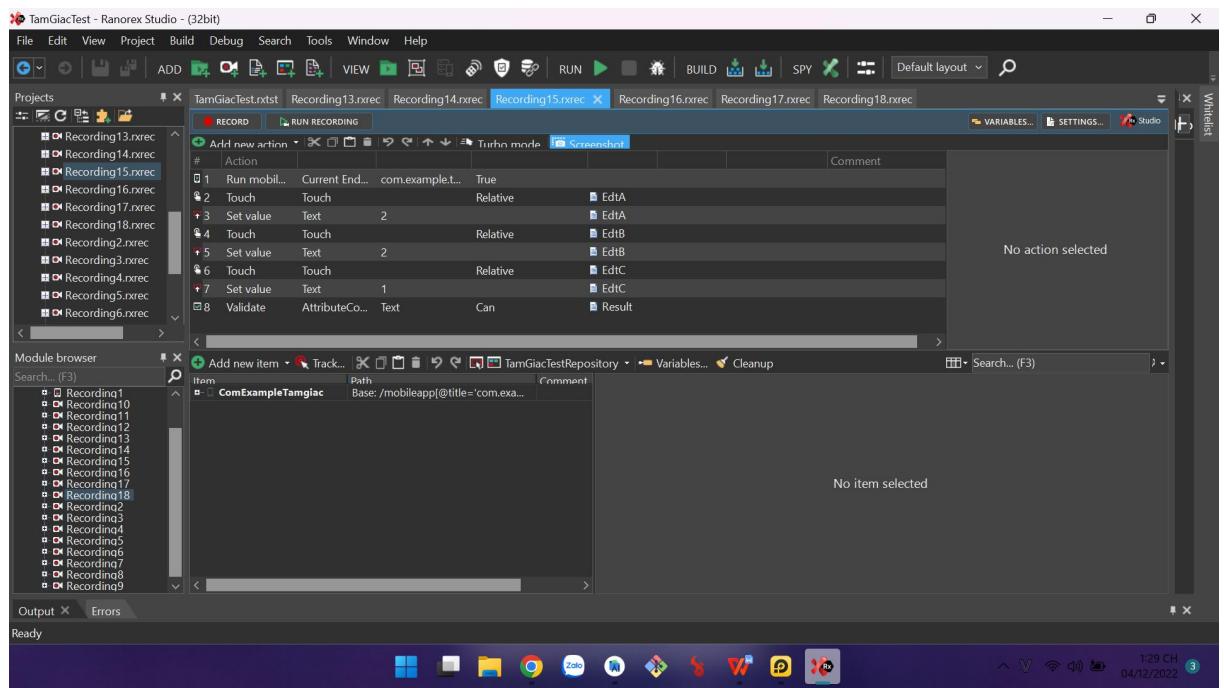
Test case 13:



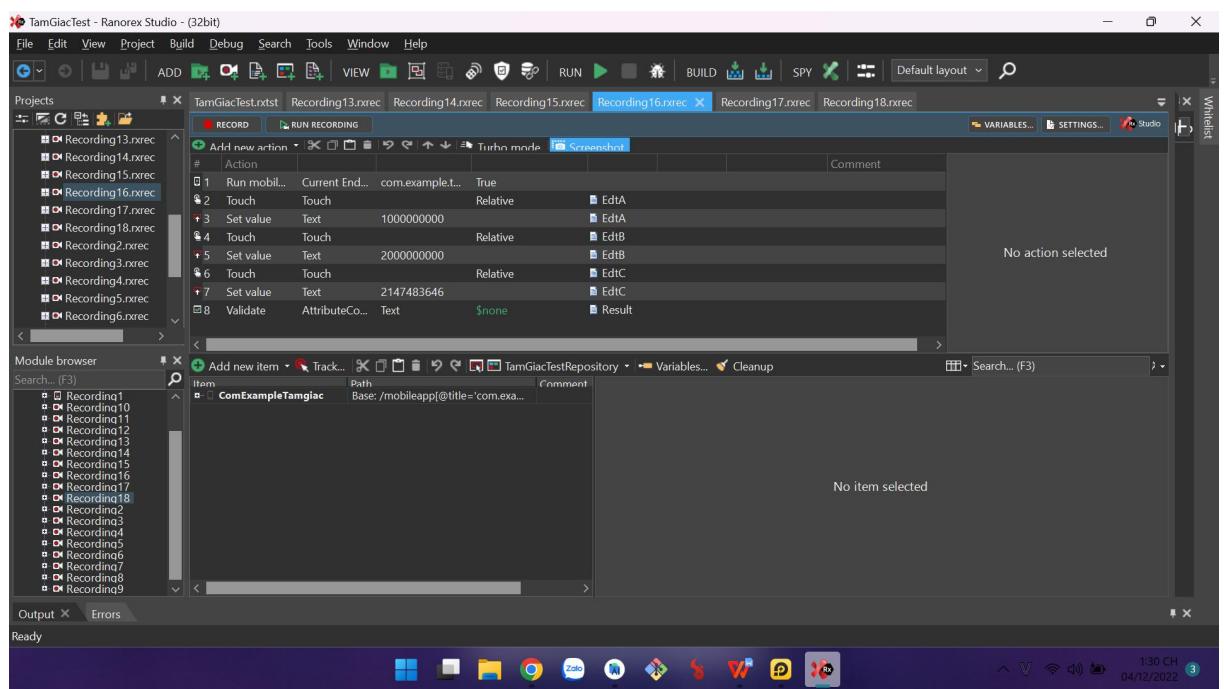
Test case 14:



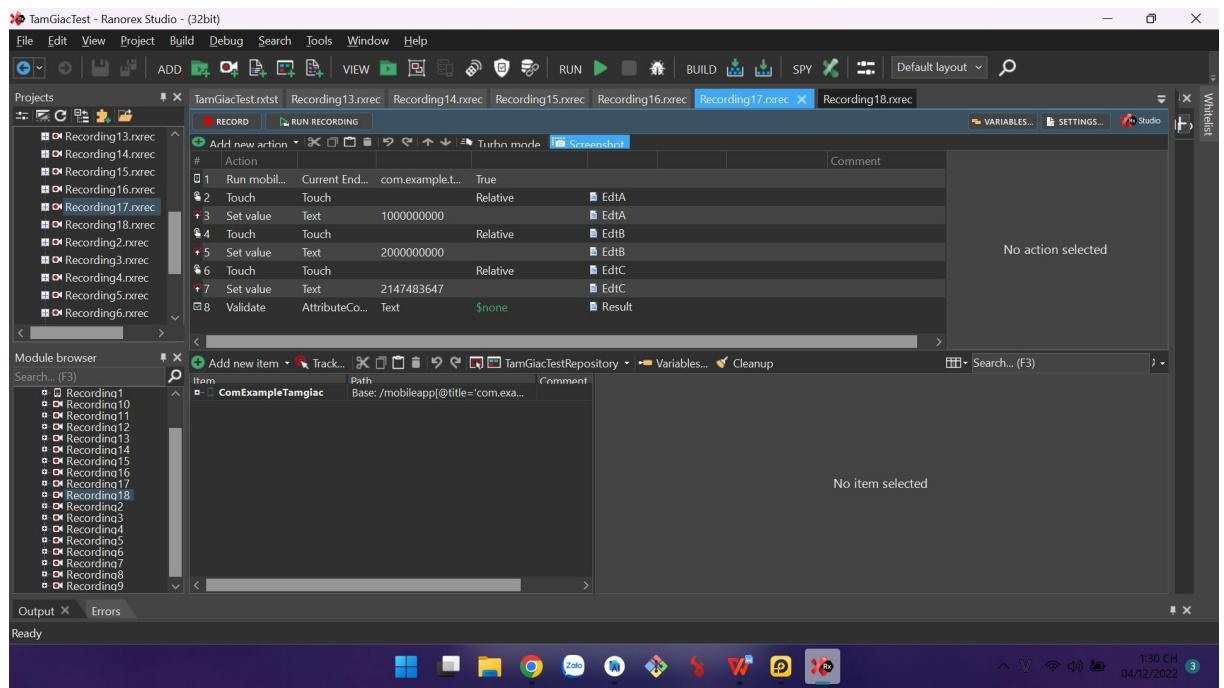
Test case 15:



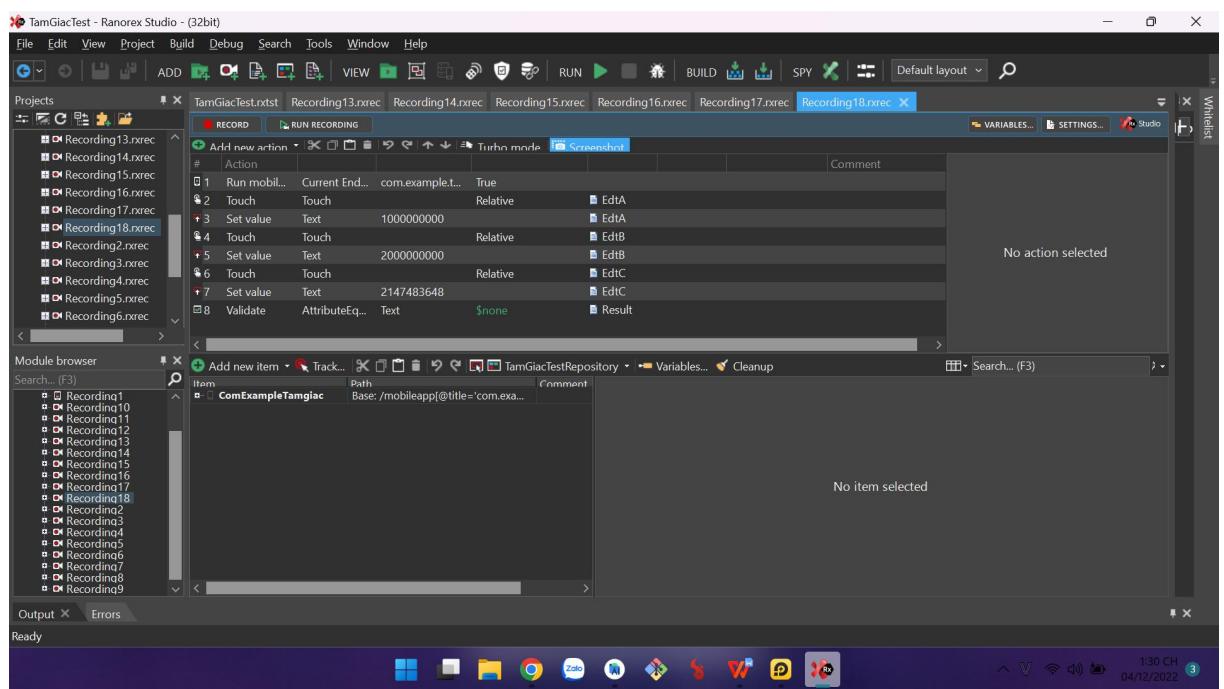
Test case 16:



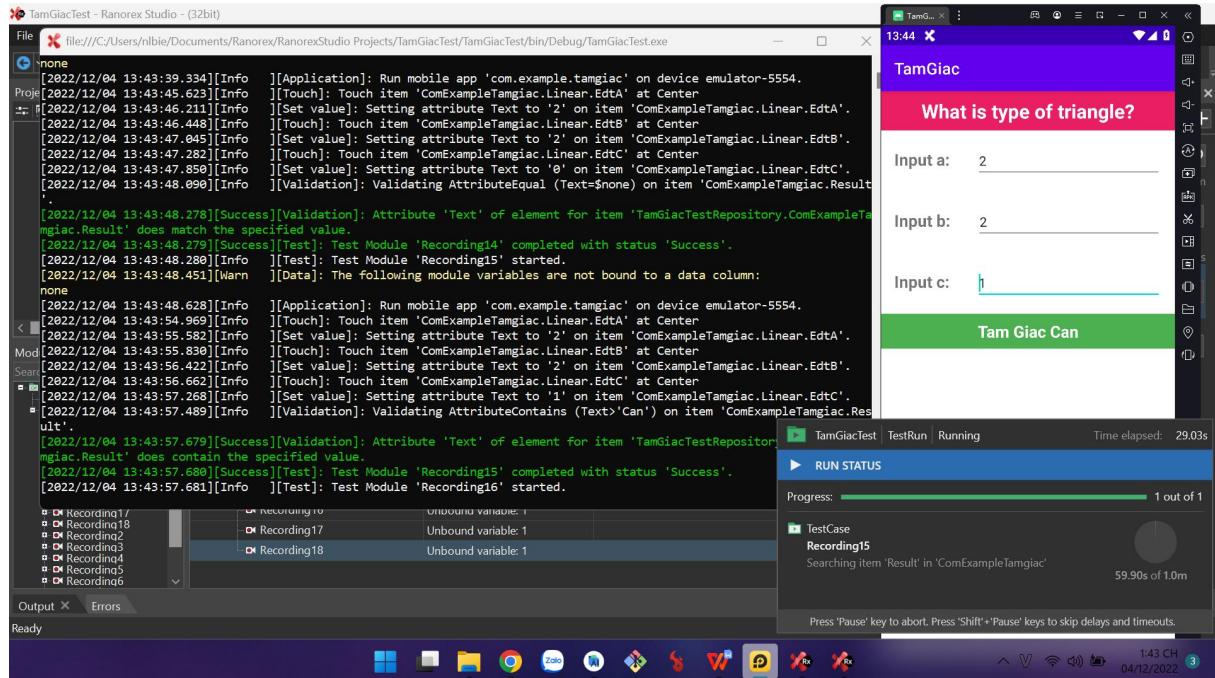
Test case 17:



Test case 18:

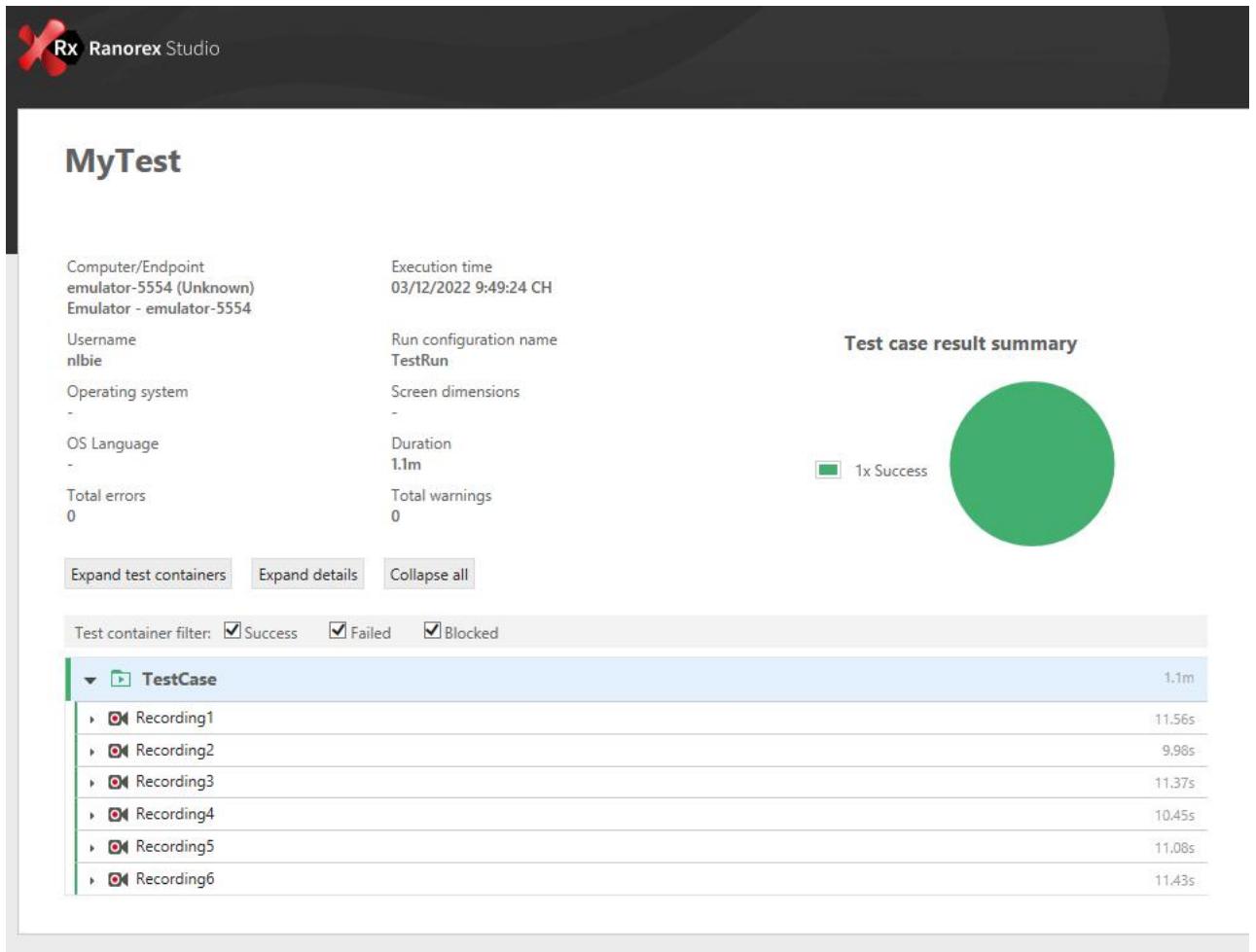


b) Running



Result

a) Overview



b)Detail Test case



TamGiacTest		
Execution time 04/12/2022 2:14:46 CH	Computer name emulator-5554 (Unknown)	Language -
Operating system -	Emulator - emulator- 5554	
	Screen dimension -	Duration 2.9m
1 x Success	Total warnings 19	Total errors 0

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c) Evaluate Test case

STT	Input			Expected	Done
	a	b	c		
1	-1	2	2	Không Phải TG	Pass
2	0	2	2	Không Phải TG	Pass
3	1	2	2	Tam Giác Cân	Pass
4	2147483646	1000000000	2000000000	Tam Giác Thường	Fail
5	2147483647	1000000000	2000000000	Tam Giác Thường	Fail
6	2147483648	1000000000	2000000000	Không Phải TG	Pass
7	1	-1	2	Không Phải TG	Pass
8	1	0	2	Không Phải TG	Pass
9	2	1	2	Tam Giác Cân	Pass
10	1000000000	2147483646	2000000000	Tam Giác Thường	Fail
11	1000000000	2147483647	2000000000	Tam Giác Thường	Fail
12	1000000000	2147483648	2000000000	Không Phải TG	Pass
13	1	2	-1	Không Phải TG	Pass
14	1	2	0	Không Phải TG	Pass
15	2	2	1	Tam Giác Cân	Pass
16	1000000000	2000000000	2147483646	Tam Giác Thường	Fail
17	1000000000	2000000000	2147483647	Tam Giác Thường	Fail
18	1000000000	2000000000	2147483648	Không Phải TG	Pass

Failed Cases: Because condition $a + b > c \ \&\& \ a + c > b \ \&\& \ c + b > a$ and sum of them > upper boundary (2147483647)

-End-