Overview		
Product name	Calculator	
Product description	Mobile app to make a basic calculations	
Test phase	Beta	
Objectives		
Ongoing feedback	Bug reports	
Directed feedback	Survey	
Participants		
Total Testers	11 (+1 – QA Team)	
Core requirements	Must be active smartphone user. Device OS must have version 8.0 and earlier.	
Technical Segmentations	Focus group must have Android device with version 8.0 and higher, RAM – 512 mb and higher.	
Schedule		
Phase	Duration	Description
Preparation	Week 1	Finalize Beta Plan, Creating focus group
Test	Week 1-2	Testing; Analyzing results
Stakeholders		
Name	Role	Responsibilities
Anatoli Zabauski	QA Engineer, Developer, Product owner	Software development, testing, work with a focus group
Test history log		
Date	Change description	Version
07/09/2022	Creating the first full version of the program	0.9.0

Test results of build verification testing (before sending the beta version of the app to the focus group):

id	Summary	Priority	Module	Steps	Expeted result
1	Installing of app	High	Installing	1. Run the file "Calaculator.apk" 2. Confirm the intention of installation 3. Wait until the installation is completed	1. The application installer has started 2. The installation process has started 3. Installation completed successfully
2	Running the application	High	Launching	1. Start the application 2. Wait for the loading screen to appear	1. Application has started 2. Loading screen has appeared
3	Using the number buttons	High	Calculating	1. Start the application 2. Click button with number	1. Application has started 2. Right number appeared in working field
4	Using the "addition" function	High	Calculating	1. Start the application 2. Type expression "242+20" 3. Click "equal"	1. Application has started 2. Expression appeared at working field 3. In result field appeared "262.0"
5	Using the "subtract" function	High	Calculating	1. Start the application 2. Type expression "2-37" 3. Click "equal"	1. Application has started 2. Expression appeared in working field 3. In result field appeared "-35.0"
6	Using the "multiply" function	High	Calculating	1. Start the application 2. Type expression "54*3" 3. Click "equal"	1. Application has started 2. Expression appeared in working field 3. In result field appeared "162.0"
7	Using the "divide" function	High	Calculating	1. Start the application 2. Type expression "980/25" 3. Click "equal"	1. Application has started 2. Expression appeared in working field 3. In result field appeared "39.2"
8	Using brakets function	High	Calculating	1. Start the application 2. Type expression "34*(98-32)" 3. Click "equal"	1. Application has started 2. Expression appeared in working field 3. In result field appeared "2244.0"

Table 1 – Test cases for Calculator v 0.9.0

Continuation of Table 1 – Test cases for Calculator v 0.9.0

id	Summary	Priority	Module	Steps	Expeted result
9	Using dot	High	Calculating	1. Start the application 2. Type expression "12.5/5" 3. Click "equal"	1. Application has started 2. Expression appeared in working field 3. In result field appeared "2.5"
10	Using "percent" function	High	Calculating	1. Start the application 2. Type expression "123" 3. Click "%"	1. Application has started 2. Expression appeared in working field 3. In result field appeared "1.23"
11	Using "All clear" function	High	Calculating	1. Start the application 2. Type expression "482+3468" 3. Click "AC"	1. Application has started 2. Expression appeared in working field 3. All fields became empty
12	Using "Backspace" function	High	Calculating	1. Start the application 2. Type any number buttons 3. Cick "backspace" button	1. Application has started 2. Numbers appeared in working field 3. Last number deleted in workin field
13	Calculating a complex expression	High	Calculating	1. Start the application 2. Type expression "4.5*6.3+(54-17.4)*0.35" 3. Click "equal"	1. Application has started 2. Expression appeared in working field 3. In result field appeared "41.16"
14	Calculating a expression with mistake	High	Error processing	1. Start the application 2. Type expression 7/(8-1-7) 3. Click "equal"	1. Application has started 2. Expression appeared in working field 3. In result field appeared "Error in expression"

The focus group included 10 people. The devices of beta-test participants must be included in the category of target devices of potential users of the application. Feedback from participants will be received in the form of a survey. The application form will include the following items:

a) Email (member of focus group has the ability to stay anonymous in future documentation);

b) Device model;

c) OS version;

d) Screen resolution;

e) RAM size;

f) Functionality realization (from 0 to 10) - if the beta tester is unable to work with the application, the grade is automatically set to "0";

g) Did you see all the features you expected?;
h) Detected bugs
i) Comment

After receiving the actual version of the application and application questionnaire, focus group will have a period of 7-10 days with an opportunity to contact with the developer if they have questions at any time. During this time, the QA team should conduct exploratory testing. When the questionnaires are received, their content should be analyzed. It should be noted that the bugs detected by the users associated with the not implemented yet features will not be considered as a bug, but must be taken into account by the development team.

The final step should be the scoring of the results. Special attention should be focused on the shortcomings in the test and possible solutions to such a problem.