Test task for the developer

The task is to develop a calculator application that will allow you to enter a mathematical expression with one variable, set the range of values of this variable and plot the function.

The expression-parsing module should minimally support the following operations:

- Addition
- Subtraction
- Multiplication
- Division
- Unary minus
- Parentheses

In addition to the native expression-parsing module, implement the same functionality using the Wolfram Alpha API, and in the application add the choice between your own implementation and Wolfram Alpha.

Bonus Challenge

Add support for the exponentiation operation – x^y, as well as the extraction of the square root – sqrt(x).

Technical requirements

It is forbidden to use ready-made libraries for building graphs (e.g. d3.js for the web, Charts for iOS, etc.).

The programming language and the stack preferences:

- Web: JavaScript, React + Redux
- Backend: Kotlin
- Mobile: Dart (Flutter cross-platform frame-work)

The application must have a good *extensible architecture*. An additional advantage will also be the coverage of the module for parsing expressions with *unit tests*.