

Project task assignments

At the very top of the source files should be name of the team and name of the team-member who worked on this file.

```
# Tripple-Double
# @author xlogin00
```

Note

Each member of the team must have his own branch. Every source file must contain doxygen comments and header, defined above. Deadline for each member is 1 week (ends 01.03.2023)

Design (xpodho08)

Implement drafts in `/mock` using [tkinter](#).

Requirements

Design implementation should be written in `/src/view/view.py`. Folder `view` has to contain all the necessary files for `view.py`.

- Interface must contain following buttons:
 - Operations:
 - plus (+)
 - minus (-)
 - multiply (*)
 - divide (/)
 - factorial (!)
 - exponentiation (^)
 - equals (=) *after clicking "equals" expression from display is sent to parser*
 - clear *clears display*
 - brackets (()) *both brackets should be separate buttons for now*
 - Tooltips
 - Implement button with question mark (in top left corner, circle) , which you can click to show tooltip for each button for 3 seconds.
- Keyboard
 - User should be able to type in any symbol using keyboard only.

Expression parser (xturyt00)

Parser implementation should be written in `/src/parser/parser.py`. Folder `parser` has to contain all the necessary files for `parser.py`.

Requirements

Parsing rules:

E -> E + E
E -> E - E
E -> -E
E -> E * E
E -> E / E
E -> E ^ E
E -> !E
E -> (E)
E -> e

Create priority table and parser. Parser must use functions implmented by `xkolia00`. After input is validated, parsed and calculated, return result back to view.

Math (xkolia00)

Math implementation should be written in `/src/math/math.py`. Folder `math` has to contain all the necessary files for `math.py`.

Requirements

- Implement functions:
 - plus (+)
 - minus (-)
 - multiply (*)
 - divide (/)
 - factorial (!)
 - exponentiation (^)

Each function takes parameters *a* and *b*, with type of number and returns result.
Test all math functions with various inputs, using [unit testing](#) in python. Test folder should be created next to `math.py`.

Profiling (xbuten00)

Profiling implementation should be written in `/src/profiling/profiling.py`. Folder `profiling` has to contain all the necessary files for `profiling.py`.

Requirements

Profiling must use math library, written by `xkolia00`. If it's not done yet, use your custom functions, then replace them.

Profiling takes sequence of random digits `1, 2, 3, 4, 5, 6 ...` min. 1000.
Using formula below, it outputs *s*.

$$s = \sqrt{\frac{1}{N-1}(\sum_{i=1}^N x_i^2 - N\overline{x}^2)}$$
$$\overline{x} = \frac{1}{N} \sum_i^N x_i$$

User documentation (xbuten00)

Communication

Team uses for communication **Telegram** and **Discord**.

Version control system

As VCS, we use [github.com](#)

Repository access

Email to xturyt00@stud.fit.vutbr.cz with subject "repository access" and github username to get access to our repo.