وَمَا أُوتِيتُمْ مِنَ الْعِلْمِ إِلَّا قَلِيلًا

Software Engineering Intern
Task 01
Function Plotter

Requirements

1. Write a Python GUI program that plots arbitrary user-entered function.
2. Take a function of x from the user, e.g., 5*x^3 + 2*x.
3. Take min and max values of x from the user.
4. The following operators must be supported: + - / * ^.
5. The GUI should be simple and beautiful (well organized).
6. Apply appropriate input validation to the user input.
7. Display messages to the user to explain any wrong input.
8. You must use Pyside2 and Matplotlib.
9. The Matplotlib figure must be embedded in the Pyside2 application.
10. You must test your program using pytest and pytest-qt. Include the testing codes in your repository.
11. Your code should be well organized and well documented.

Deliverables

Deliver a link of your program on GitHub. In your repository, include a readme file and snapshots of working and wrong examples.