

PROJECT REPORT

Graphy

Introduction:-

The main aim of my project is to sketch the graph of a given function $y=f(x)$. We can also zoom in and out of the graph using the buttons in the window displayed

Idea:-

The main idea for this project is evolved from the hardships I faced in my Maths courses so far.

Technology used:-

Python3, Tkinter, Python3 Graphics library

Implementation details:-

Taking the value of the function and plotting it in a graphic space window in appropriate spaces in the above using the graphics library.

And now the difference between the points if goes high the graph will not be continuous and so remembering the value of the previous point in another variable and making a line between the two lines so that the change in the value of the function can be represented exactly.

There may be the a case where the value of the function is not defined by a value so that we must have to skip those points. If not there will be a `ValueError` and no graph obtained so we must try marking the the value of the function if not skip the case which has been done appropriate except blocks.

Then shifting the co-ordinates to be displayed so that it will indicate the zoom in and out of the graph sheet and changing the marking of the graph to the corresponding points also.

There is also the accuracy value that can improve the number of points plotted and provide a accurate graph as required.

Images/Screenshots/links to videos:-

included in the git hub repo for installation

Future Scope:-

This can be further developed and used for the maths course in the upcoming years

The polar form can be developed and it may be further improved and can be made as a commercial project.

Experience:-

The way I approached taught me many things including the graphics library and the practical errors involved in the project and the way of solving different errors.

Reference:-

1. Zelle's graphic library

2. websites

[Swampy: Installation Instructions](#) ,

[GUI Programming with Python: Entry Widgets](#),

[how to change the starting point in graphics.py - Google Search](#),

[what is canvas in python - Google Search](#)

[Plotting Graphs with Python - Udacity](#).

Geeks for geeks and other sites for creating buttons

graphics.pdf provided by the zelle library