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Computing Fundamentals
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Iteration #02

Overall Objectives:

- UI consisting of
  - xyz cartesian coordinate system
  - Place to input the components of the vector, or the magnitude and direction
- Plot vector by using inputting vector equation in i, j, k components, and magnitude
- Allow the user to input multiple vectors, for the following to be calculated
  - Vector addition
  - Vector subtraction
  - Dot product
  - Cross product
  - The angle between the vectors

Personal Objectives:	
Oli	- Understand how to bring libraries into a program - Create a seamless user interaction with programs that are smooth and easy to follow - Become efficient in utilizing equations and math in a programming efficiently -
Karan	- Understand how to incorporate libraries like matplotlib to make the program more efficient - I want to understand the best practices used by SWE to level up my coding practices considering storage memory while coding
Ahmed	- Better my knowledge of statistical libraries such as pandas and numPy - Understand the basics of creating a user interface - Be able to apply this into other aspects of

Select Technologies and Tools:

- Matplotlib or Tkinter

    - We haven't decided but we are leaning towards Matplotlib as it is the industry standard for data analysis
- SymPy
    - This well be used for operations of on the vectors inputted by the user.
- num.py
    - His could be used to store vectors

Create a Project Timeline:

2/18	Iteration 3 - Pseudocode of necessary functions
2/25	Iteration 4 - detailed outline of Pseudocode and path of each function and finalize ideation about UI design
3/11	Iteration 5 - Start creating each function - Project new vector - Add vectors - Subtract vectors - Dot product
3/18	Iteration 6 - Work on user interface - Ensure the user inputs correctly gets to the backend - Ensure output is a clear visually intuitive xyz graph with vector
3/25	Iteration 7 -a finalized product with all deliverables working
4/2	Final Presentation

https://github.com/ahmedabu21/vector-analysis