

Python and Scientific Python Lab
Experiment 5: Animation Using Python Program

I Pre-Lab Questions:

1 List all the functions used for animation in matplotlib and its uses.

Soln: The easier way to make live animations in Matplotlib is to use one of the Animation classes.

Animation - A base class for Animations

FuncAnimation - Makes an animation by repeatedly calling a function func.

ArtistAnimation - Animation using a fixed set of Artist objects.

2 Discuss the syntax and arguments of plt. savefig, animation.FuncAnimation, save, matplotlib.animation.PillowWriter functions of matplotlib.

Soln: Matplotlib.pyplot.savefig(), method is used to save the figure created after plotting data.

Syntax: `savefig(filename, dpi=None, facecolor='w', edgecolor='w', orientation='portrait')`

Matplotlib.animation.FuncAnimation, makes an animation by repeatedly calling a function func.

Syntax: `FuncAnimation(fig, func, frames=None, init_func=None, fargs=None)`

Matplotlib.animation.PillowWriter is a writer that allows to save animations.

Syntax: `PillowWriter(fps=5, metadata=None, codec=None, bitrate=None)`