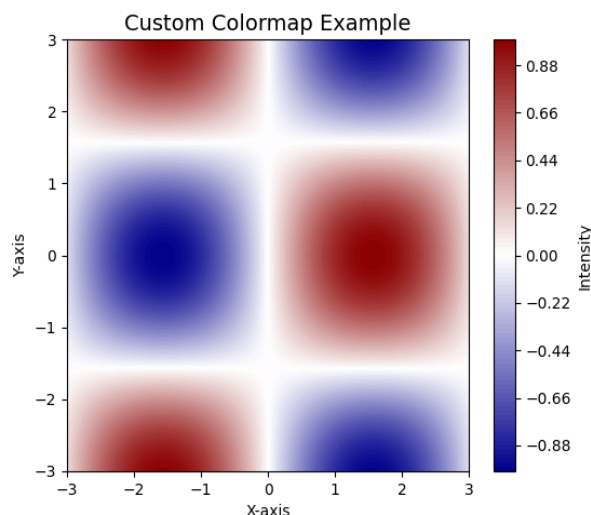


Task 03 - Custom Colormap in Matplotlib

- This task demonstrates how to create and apply a custom colormap in Matplotlib.

Steps:

1. Imported necessary libraries: numpy, matplotlib, LinearSegmentedColormap.
2. Defined a list of colors (dark blue, white, dark red).
3. Created a LinearSegmentedColormap from the list of colors.
4. Generated sample data using a sine-cosine function.
5. Applied the custom colormap in a contour plot with colorbar.



Observations:

- LinearSegmentedColormap is useful for continuous gradient scales.
- This approach is particularly effective for heatmaps, contour plots, and scientific data visualization.
- Custom colormaps allow full control over visualization color schemes.