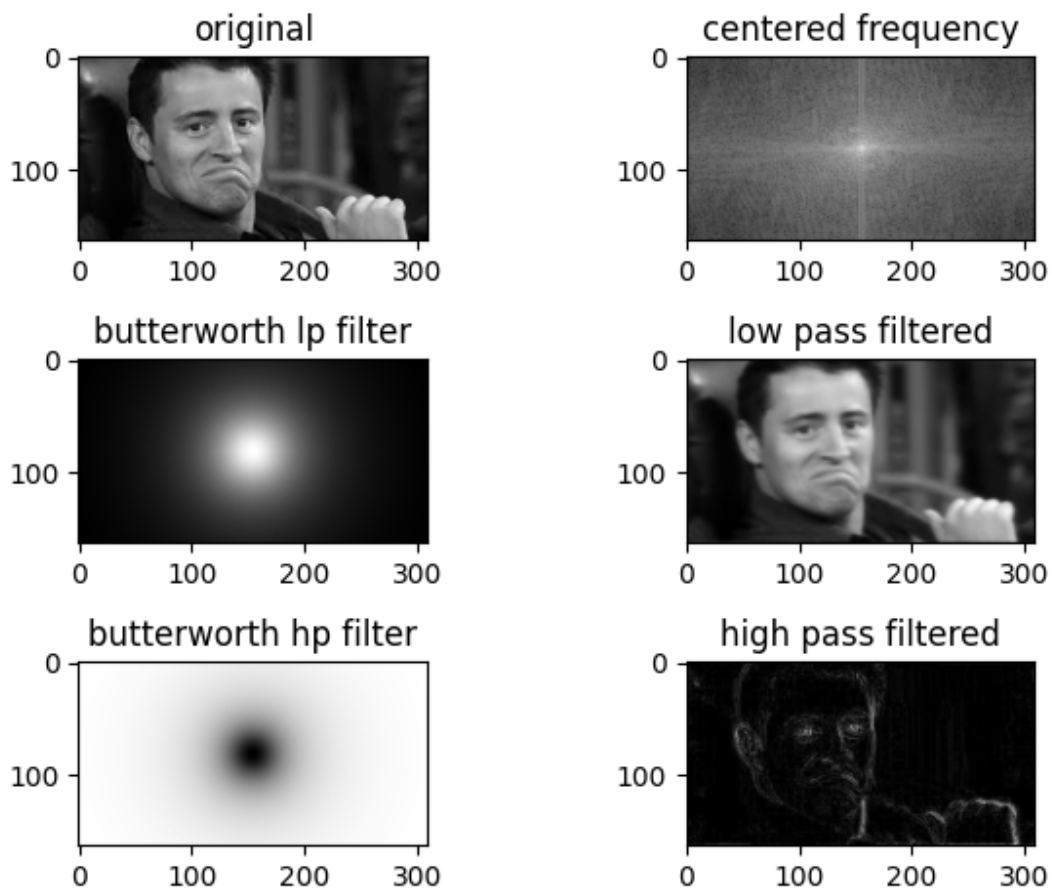Our main aim is to use Fourier transform to reduce the computational complexity for convolution.

We will be following these steps :

1)Transform an image to frequency domain.(fd)

2) Moving the origin to the center for better visualization and understanding.(fds)

3) Apply filters to filter out frequencies.(fds*h)

4) Moving the origin back to its place.(fd*h)

5) Inverse fourier transform to get image back from the frequency domain.(sd*h)

I use two different filters

1.Butterworth lowpass and high pass filter

2.Gaussian low pass and high pass filters