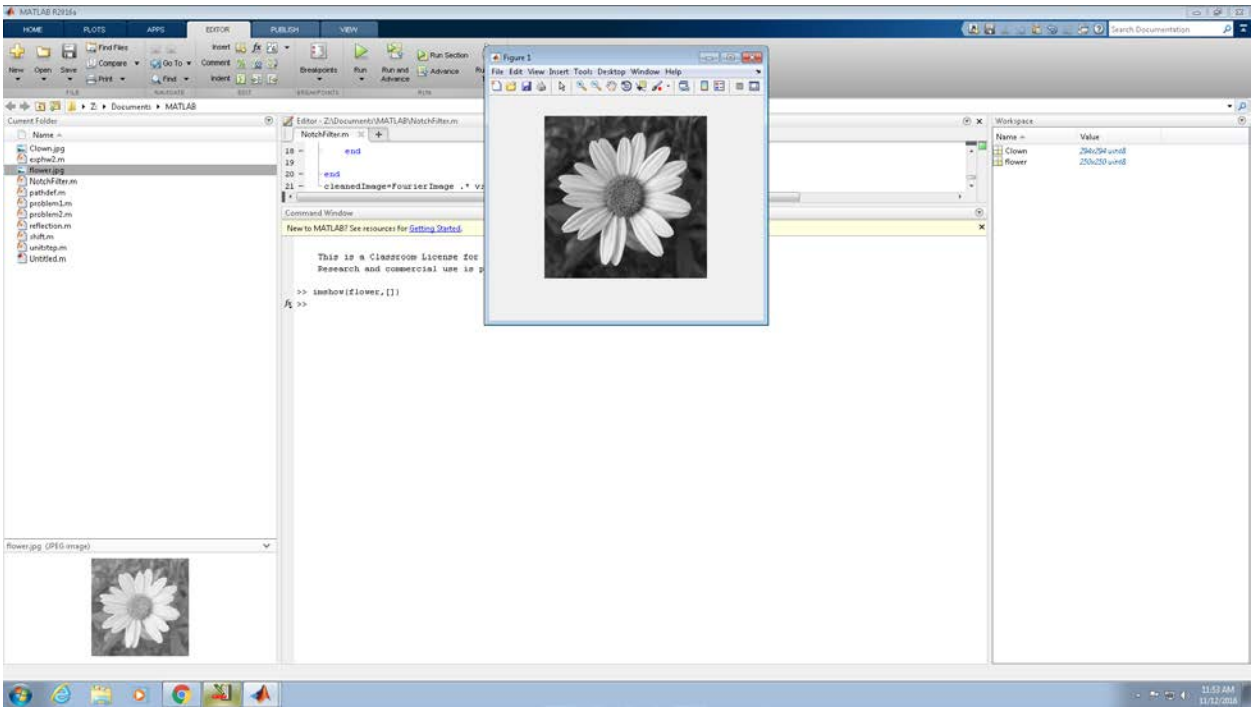
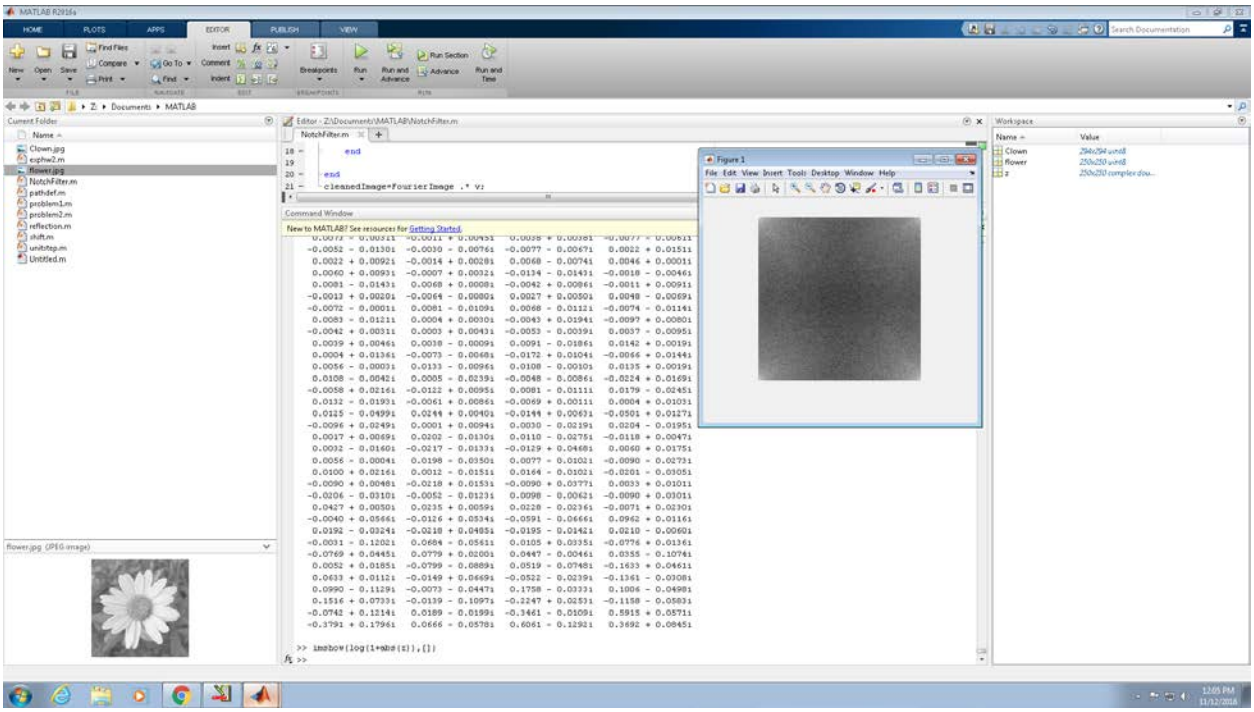
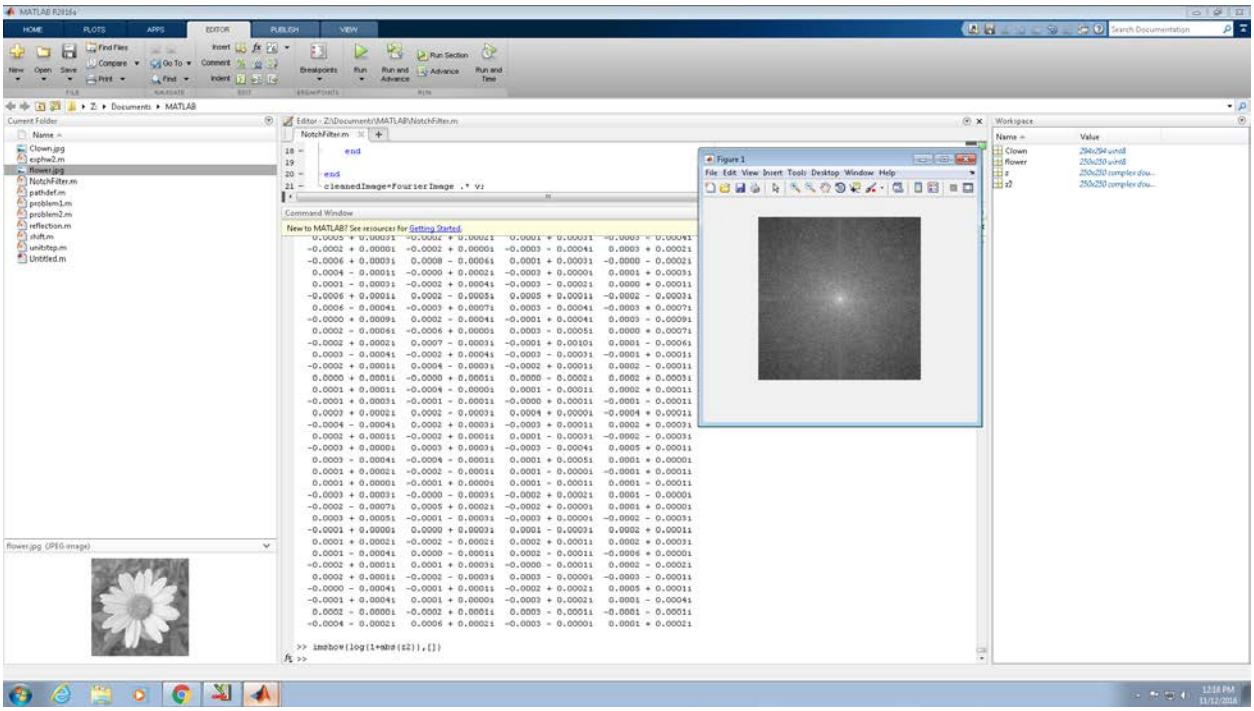


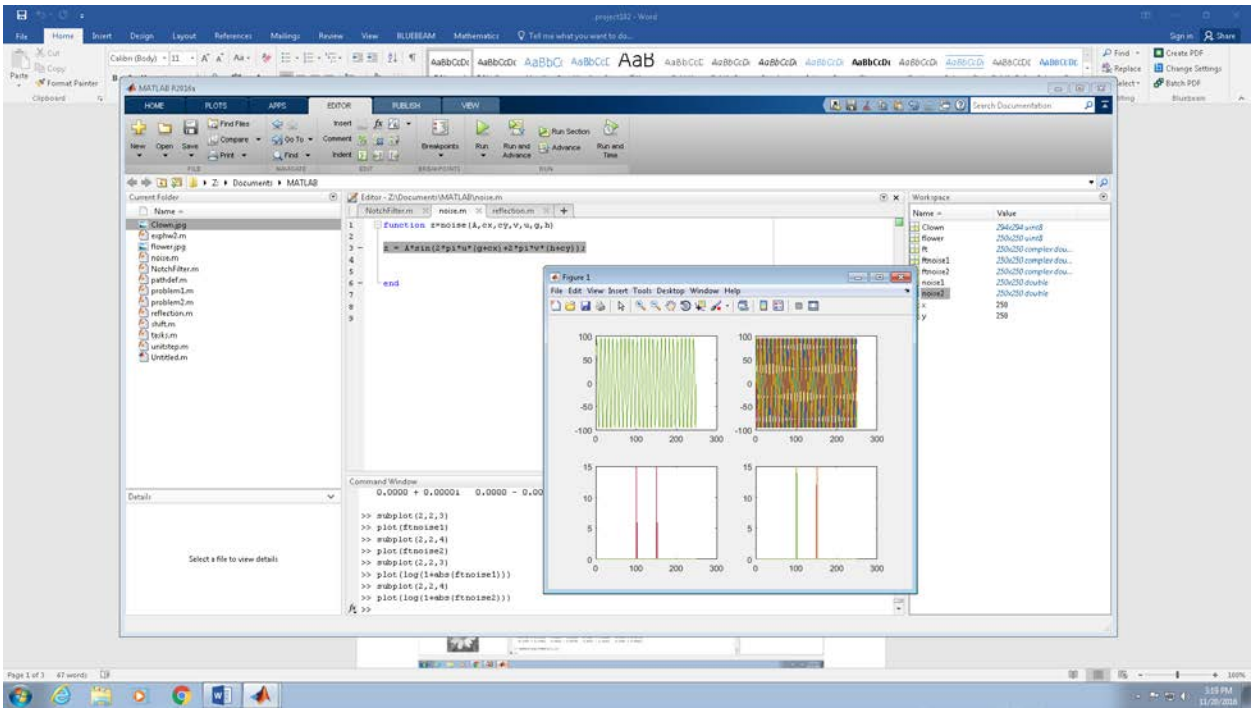
Task 1



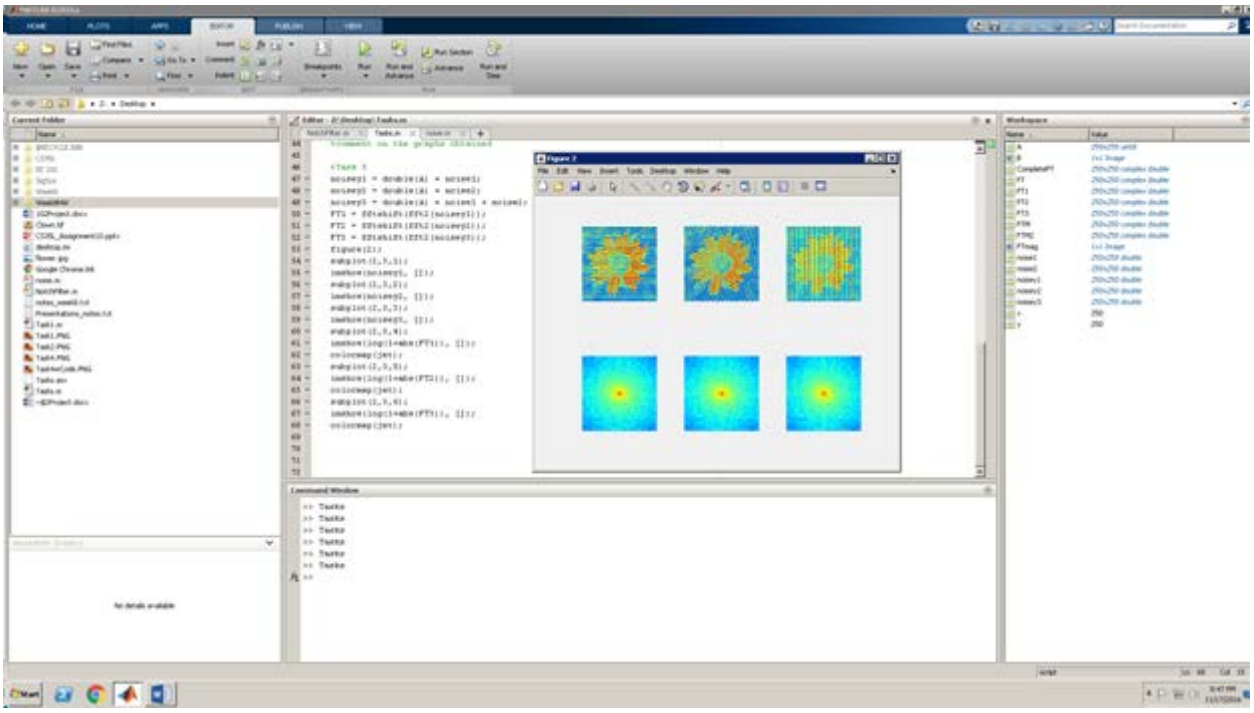
Task 2, This is the Fourier transform of the flower image, each point corresponds to the magnitude of the fourier transform value of each value of the flower image



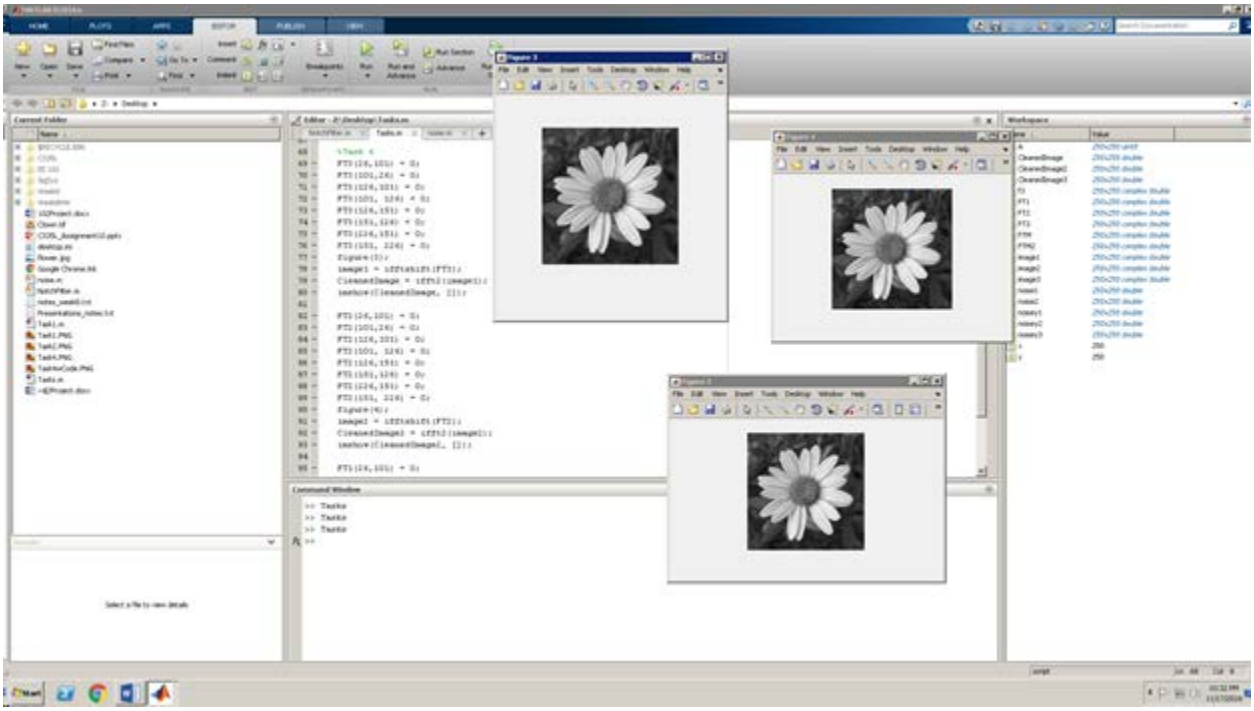
Task 3 This graph has inverse colors from the original flower image, and is centered on the center of the flower image



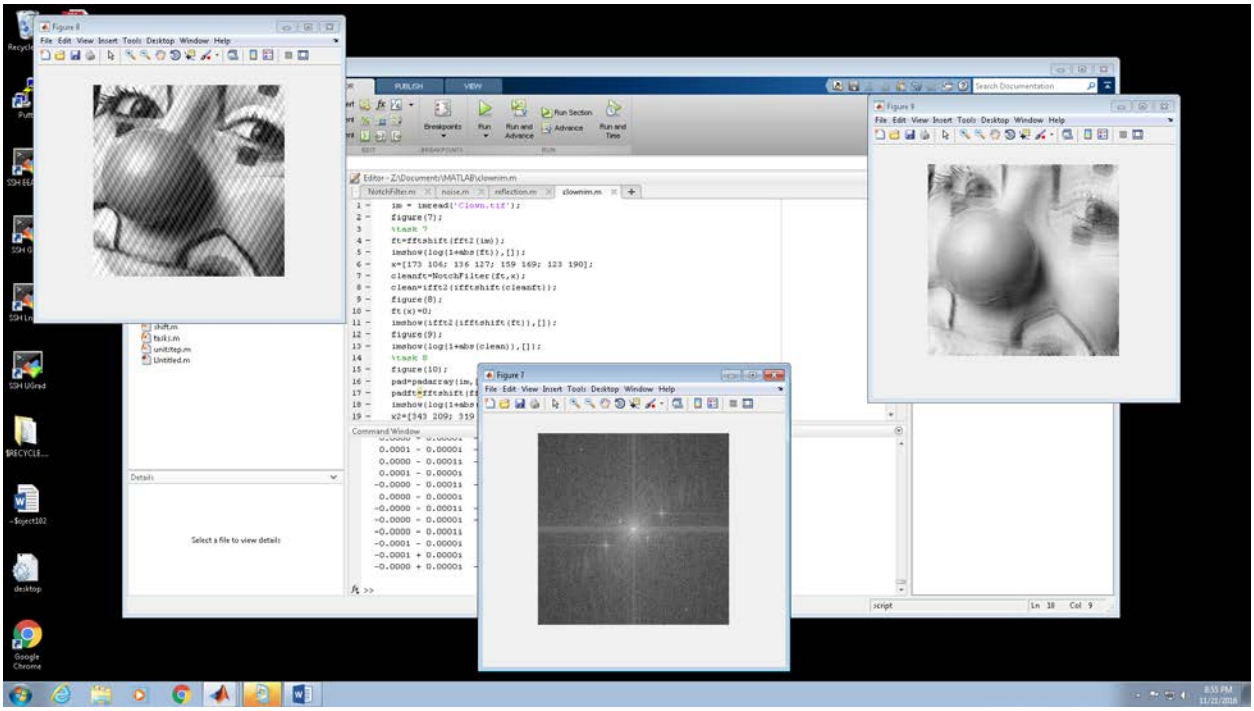
Task 4, the first two graphs are the noise sin functions in the time domain, the second two graphs are the corresponding delta functions in the frequency domain



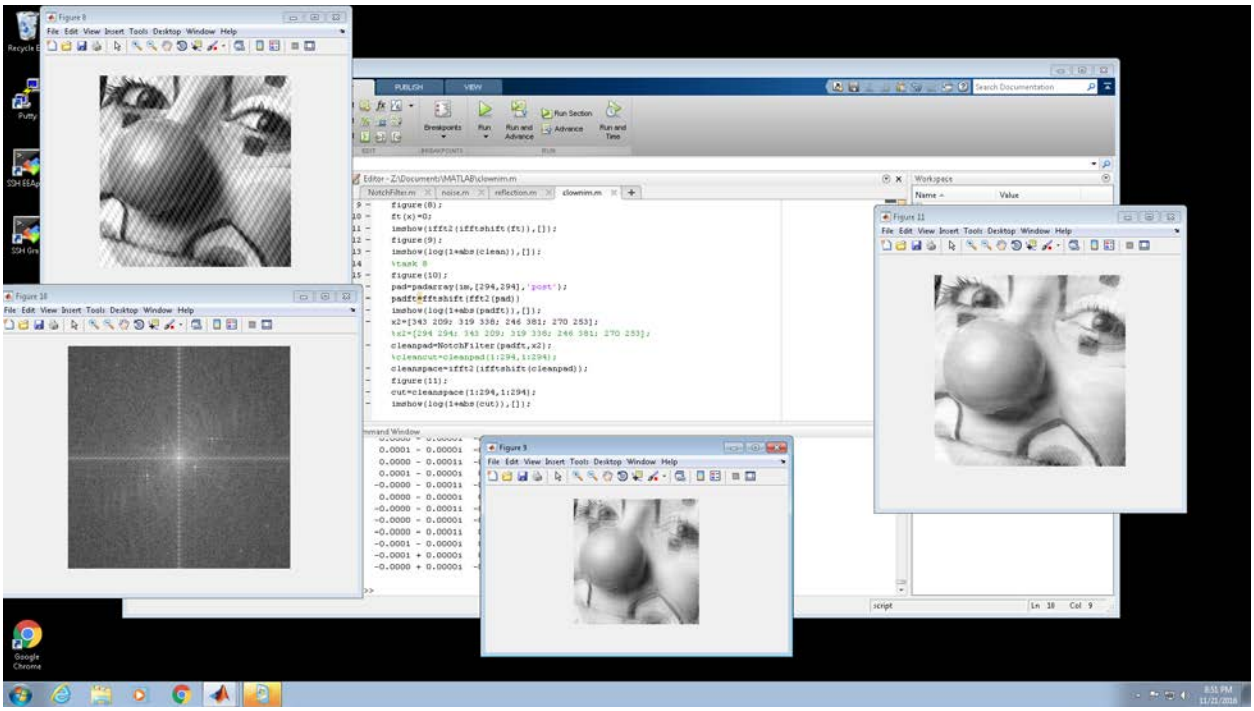
Task 5 a color image of the noise1 added to the flower, noise2 addded to the flower, and noise1 and noise2 added to the flower on the first row from left to right. The second row is the corresponding fourier transform of those noisy images



Task 6 The new clean images after nullifying the white dots found in the fourier transform of the noisy iamges



Task 7, the image is far from totally clean,e ven after using the notch filter. The top right graph is the time domain graph of the notchfiltered clown image, and the graph on the bottom is the notchfiltered frequency domain of the clown image. The top left is the original clown image.



Task 8, The top right image is the original clown. the bottom image is the space domain representation of the notchfiltered then transformed back clown image. The bottom right image is the space domain representation of the padded, then notchfiltered then cut then transformed back clown image. The bottom left is the frequency domain representation of the transformed padded image