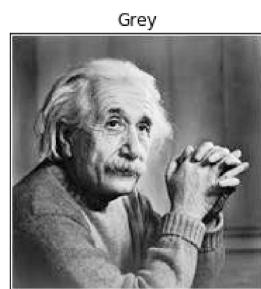
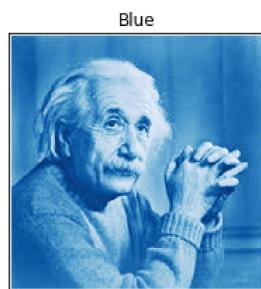
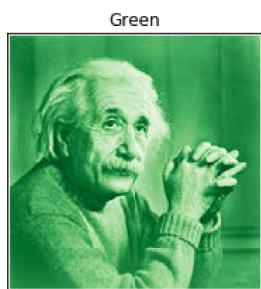
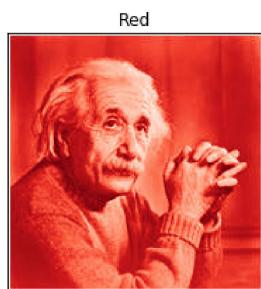
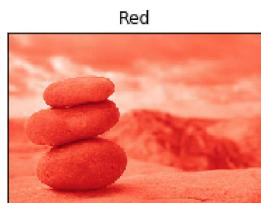


In [483]:

```
run assign-1.py
```

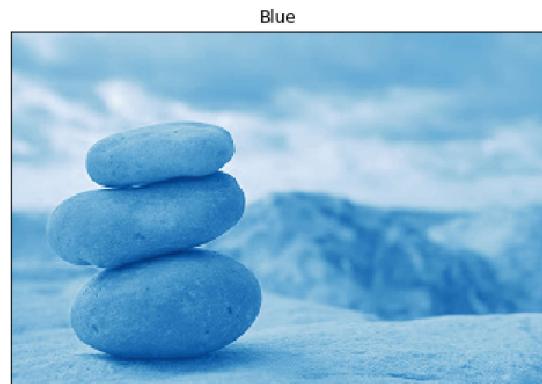
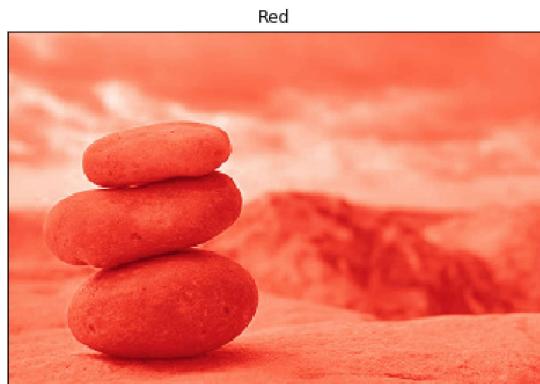
In [484]:

```
displayChannel() # Task 2.1
```



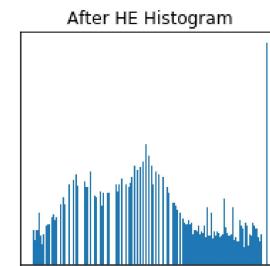
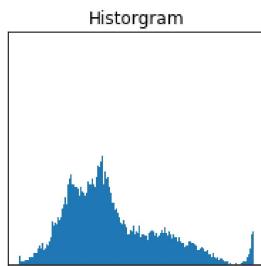
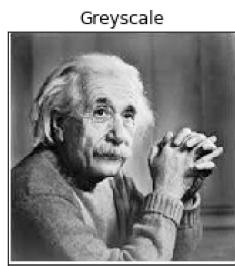
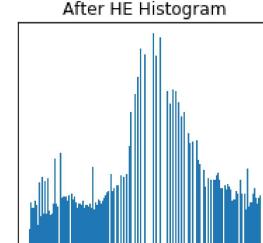
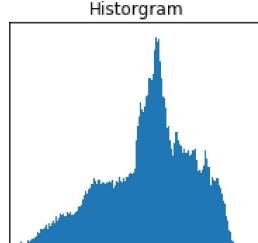
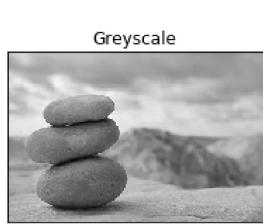
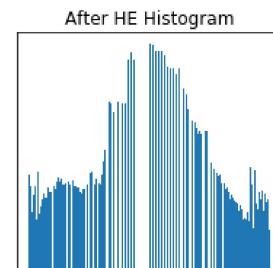
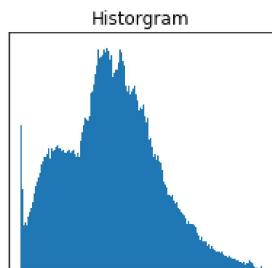
In [485]:

```
rgbExclusion('g')# the argument is a string value for the exclusion channel i.e  
('r', 'g', 'b') Task 2.2
```



In [486]:

```
displayHist() #Task 2.3
```



In [487]:

```
convOp('04.jpg','b')# first argument image path
    #second argument blur('b')/ Sharp('s')
    # Both arguments string values
#Task 2.4
```



In [488]:

```
convBox('05.jpg',(np.array([[-1, -1, -1], [-1, -8, -1], [-1, -1, -1]]))/9.0)) #Task 2.5.1 Box Filter
```

Before Conv



After Conv



In [489]:

```
gaussianFil('04.jpg') #Task 2.5.2 Apply Gaussian filter to the image, with varying sigma values.
```

Original



Blurred with sigma=4



Blurred with sigma=16



Blurred with sigma=64



In [490]:

```
noise('05.jpg') #Task 2.5.3 Add Gausian Noise and Salt and Pepper Noise
```

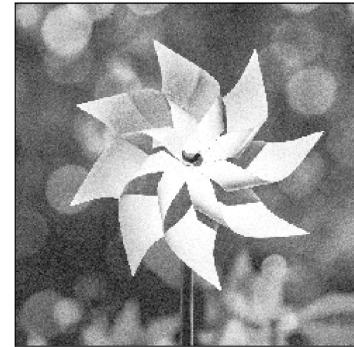
Original



Salt and Pepper Noise

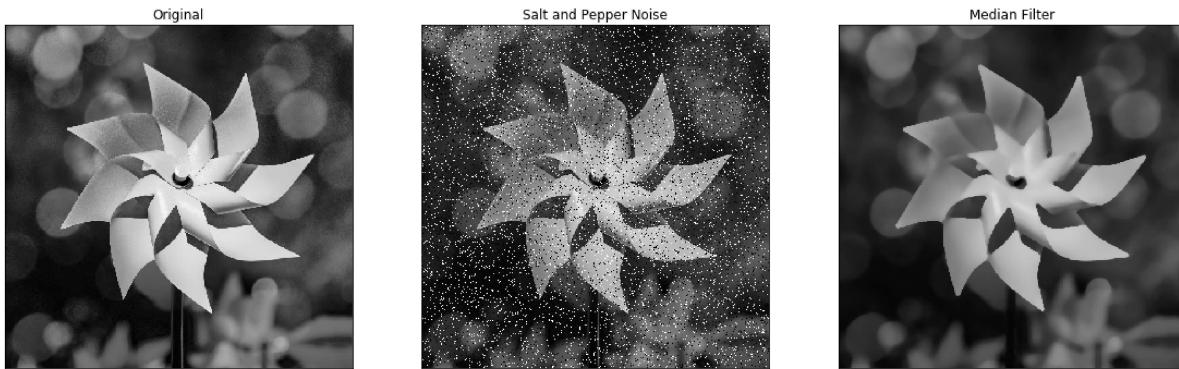
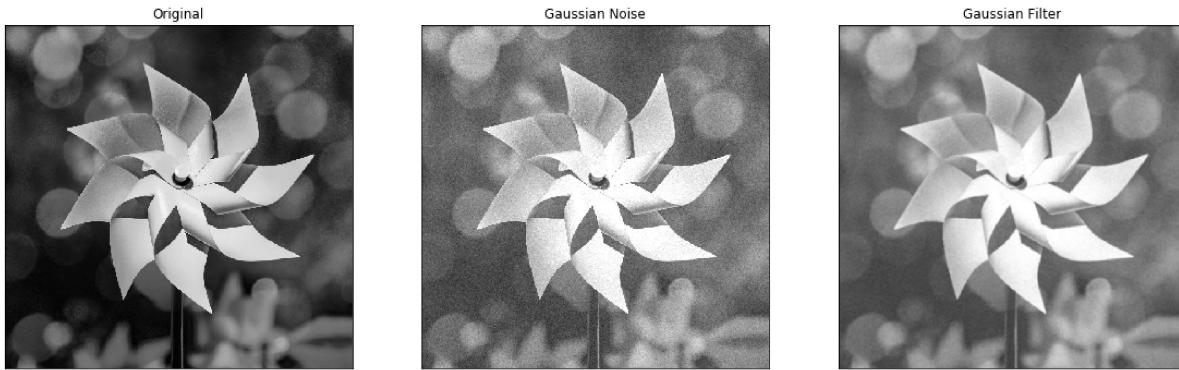


Gaussian Nosie



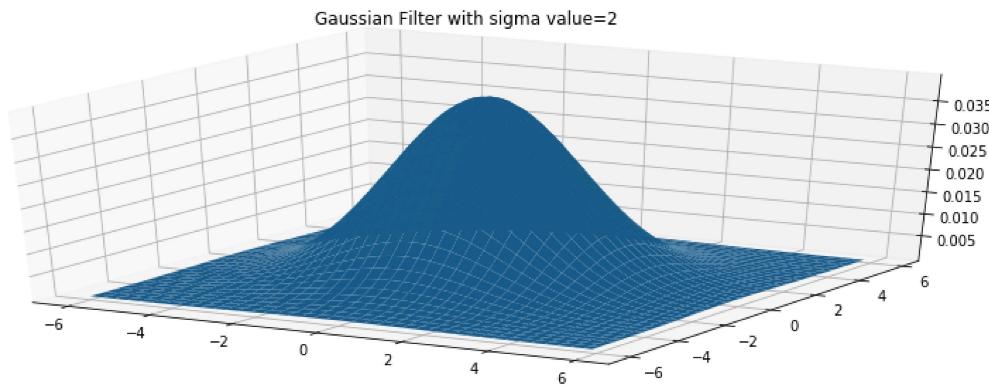
In [491]:

```
gaussMedFil('05.jpg') #Task 2.5.4 Apply Gaussian Filter and Median Filters.
```



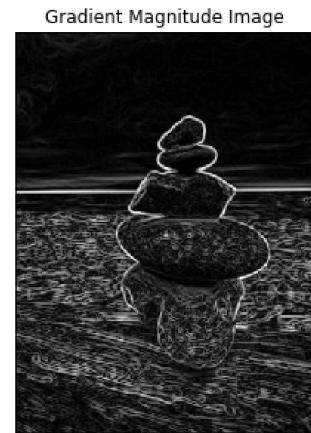
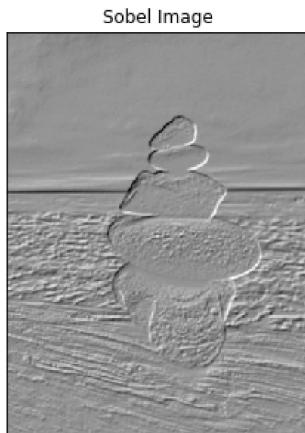
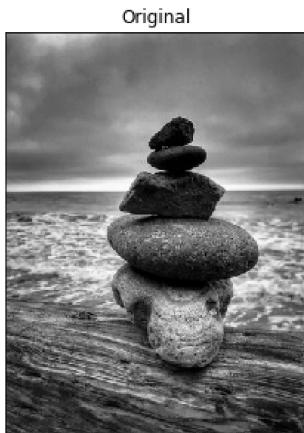
In [492]:

```
meshPlotGaussian() #Task 2.5.5
```



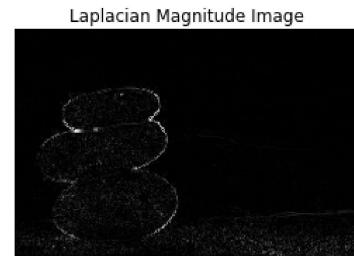
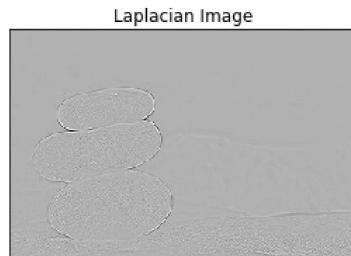
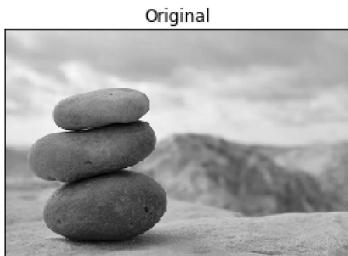
In [494]:

```
sobelOp('01.jpg') #Task 2.6.1
```



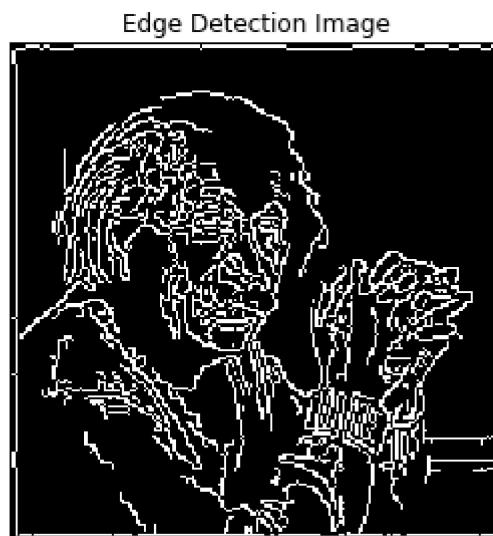
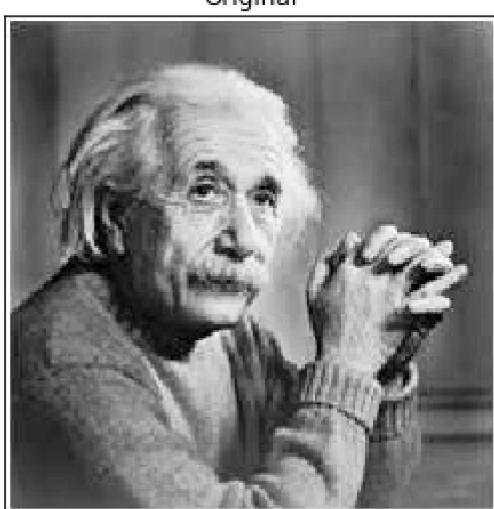
In [495]:

```
Laplacian('02.jpg') # Task 2.6.2
```



In [496]:

```
canneyEdge('03.jpg') # Task 2.6.3
```



In [497]:

```
cannyVideo() #Task 2.7 it will convert your webcam feed  
#Press enter to Exit out
```

In []:

In []:

In []:

In []: