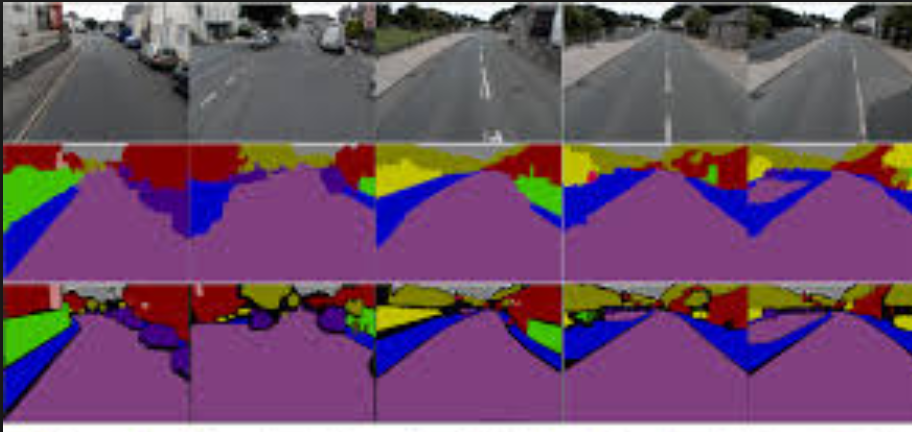
|  |
| --- |
| Image Segmentation |
| Name: Ahmed Morsy ID:4448  Name:Merna Zakaria ID:4106 |



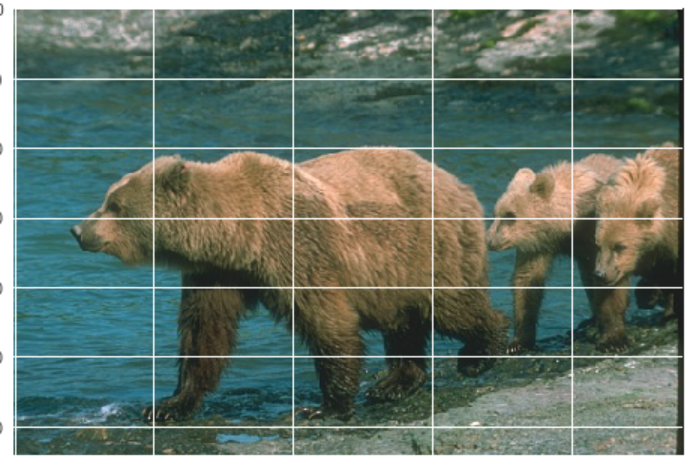
**Datasets Used:**

500 images ,200 for testing,200 for training:

@2

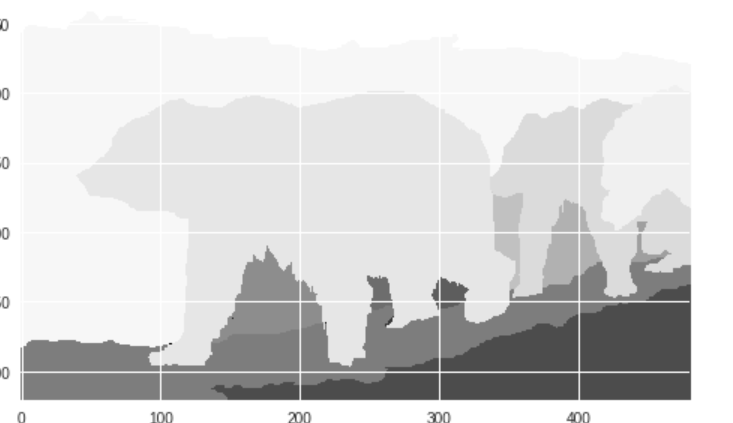
**Display an image and its segmentations:**

**Image:**

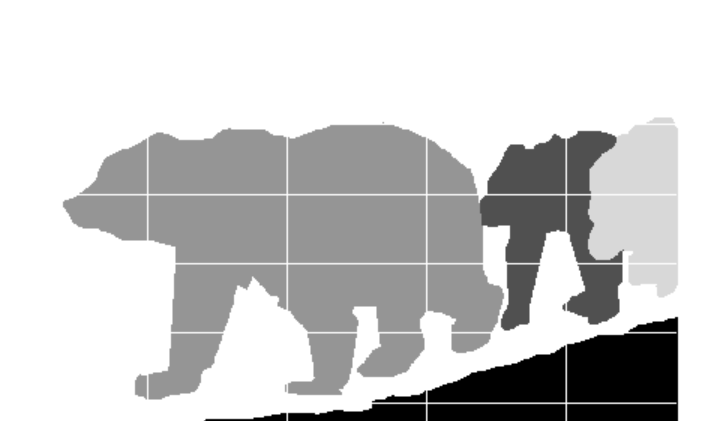


**Segmentations:**

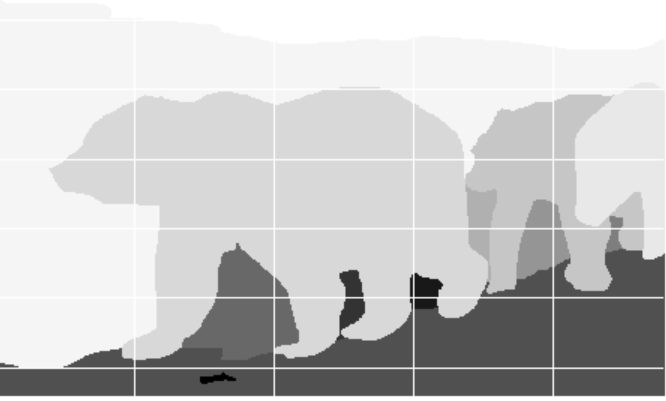
**1)**



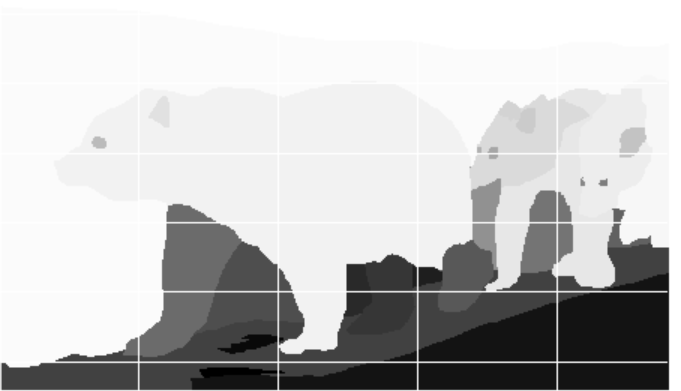
**2)**



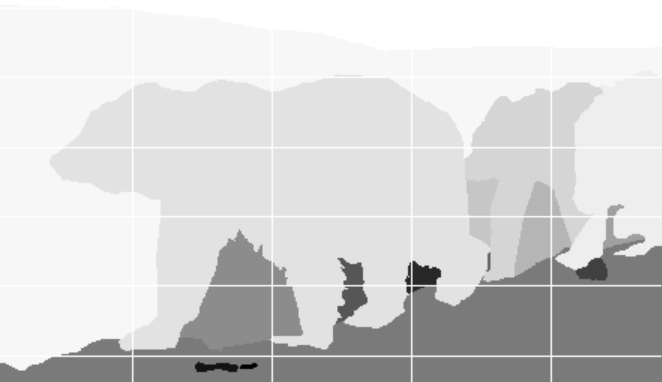
**3)**



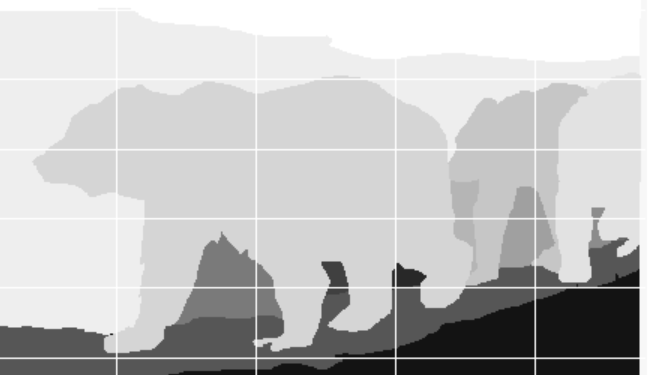
**4)**



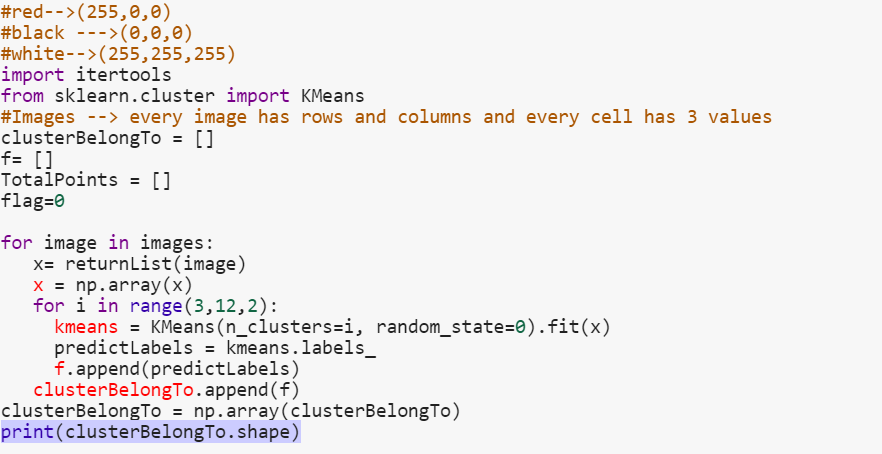
**5)**



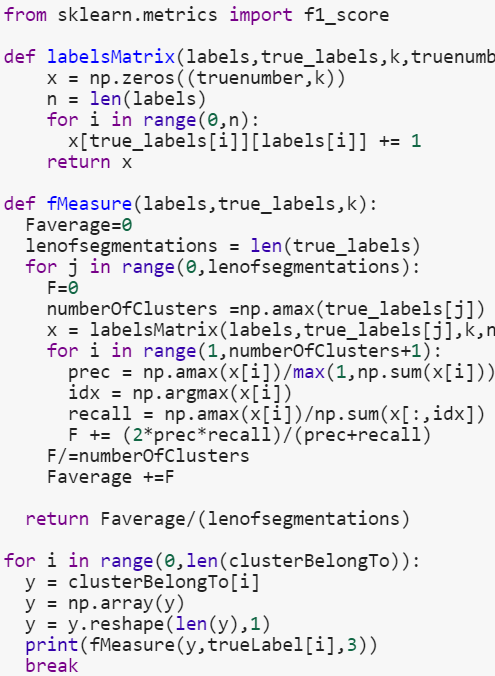
**6)**



**Segmentation Using Kmeans:**



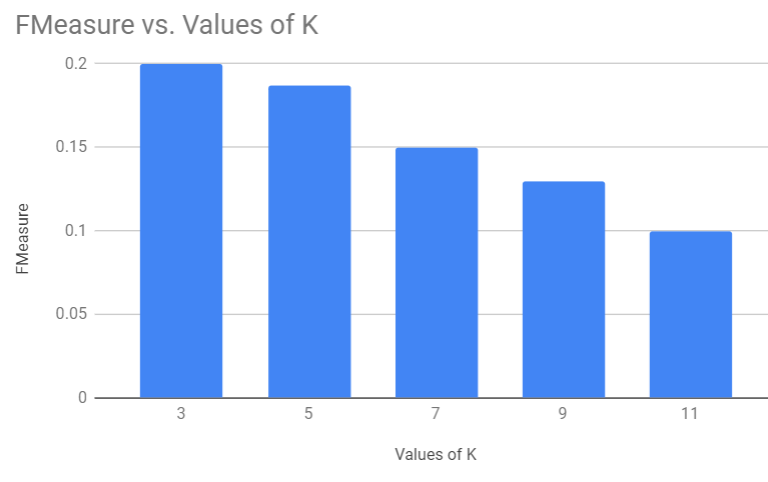
**Fmeasure:**



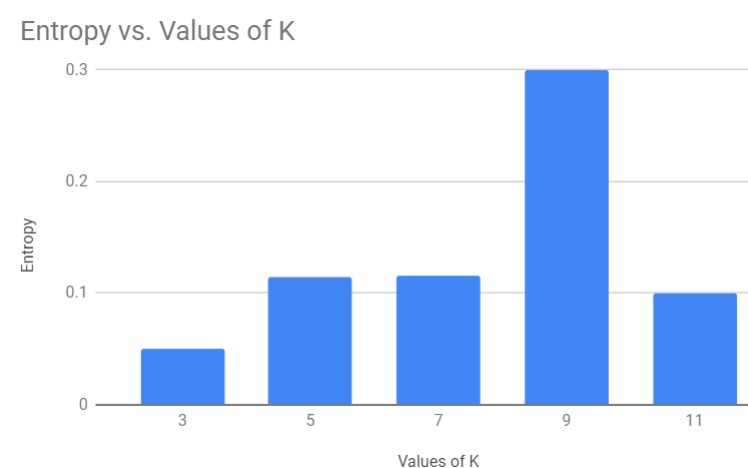
**Entropy**



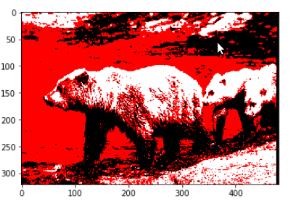
**Fmeasure for Different Ks:**



**Entropy for different k:**



**Good Clustering:**



**Bad one:**



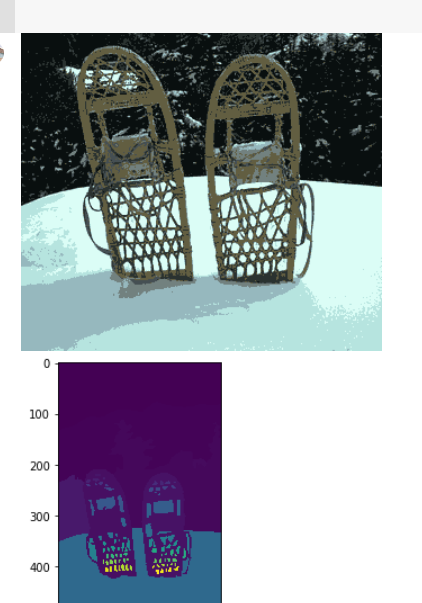
**Kmeans:**

**a) select a set of five images and display their corresponding ground truth against**

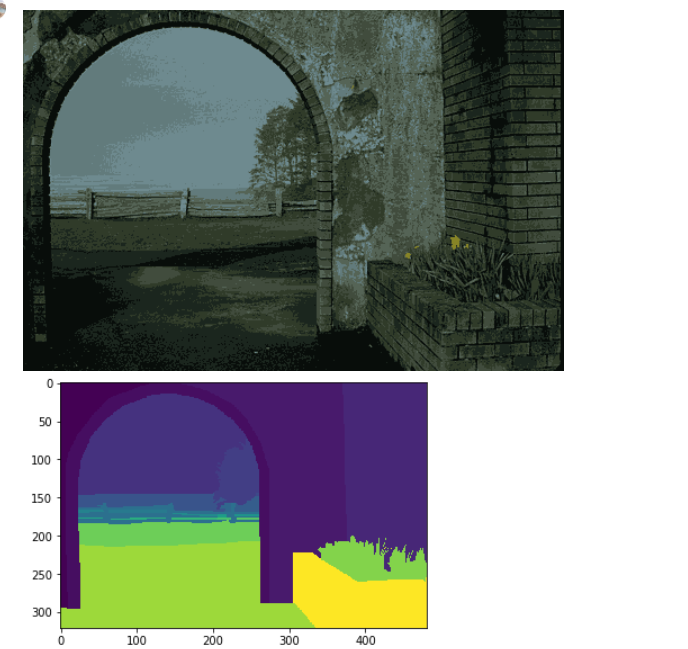
**# your segmentation results using K-means at K=5. Comment on the results**



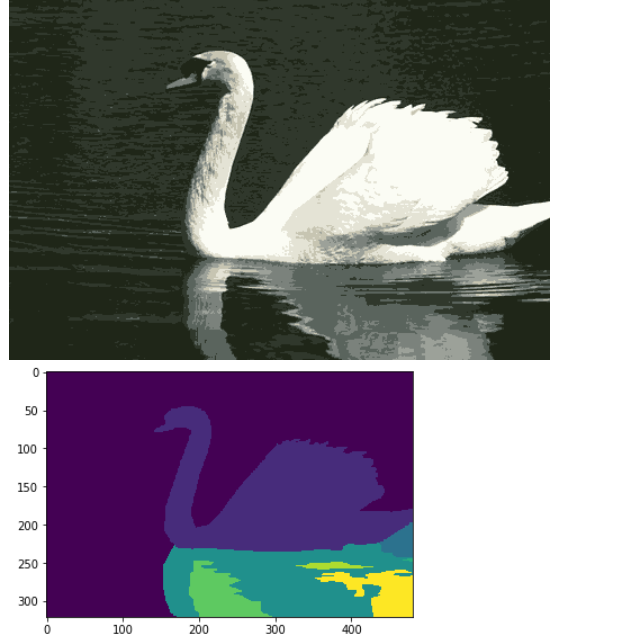
**5 images and Ground Truth:**











**b) Spectral Clustering:**



**Bonus:**

