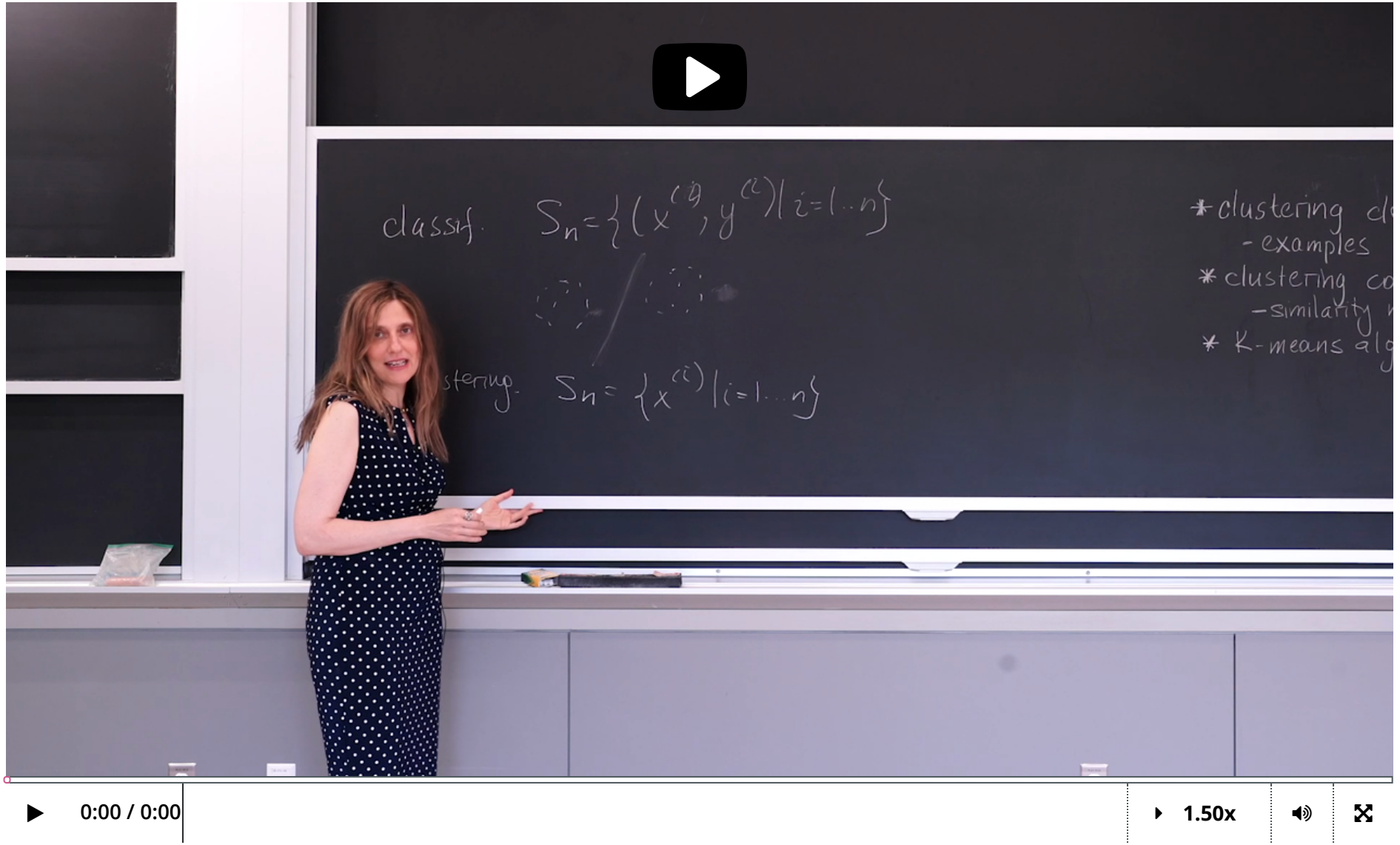
4. Another Clustering Example: Image Quantization

Another Clustering Example: Image Quantization



0:00 / 0:00 1.50x

Video

Download video file

Clustering in Image Quantization

1/1 point (graded)

In the video above, Professor Barzilay described how we can cluster colors into similar groups, and re-color the image with the "representative" colors of each cluster.

As shown in the lecture, the image below is the original image.

On the other hand, the image below is the compressed image after clustering into k clusters.

What is the value of k, the number of clusters?

$k =$

2 ✔ **Answer:** 2

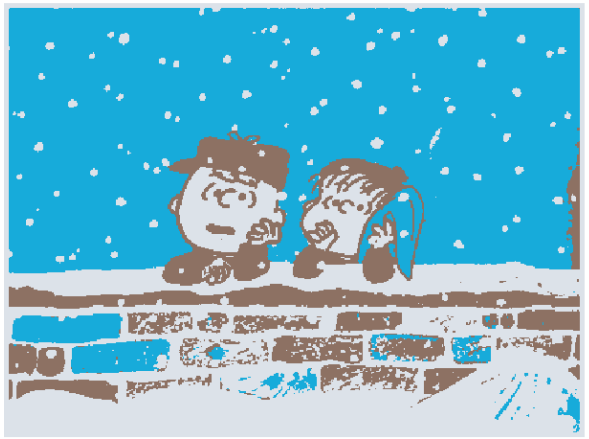
Submit You have used 1 of 2 attempts

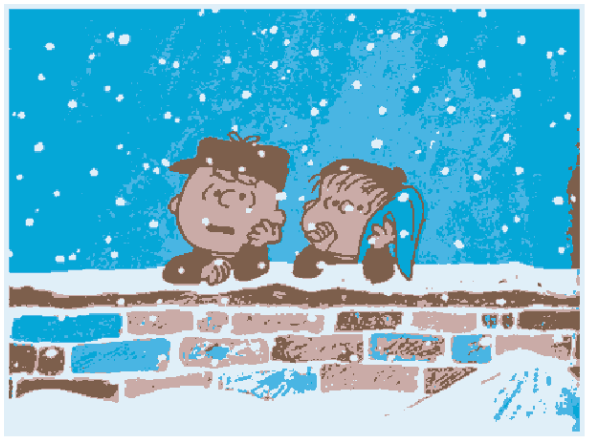
Answers are displayed within the problem

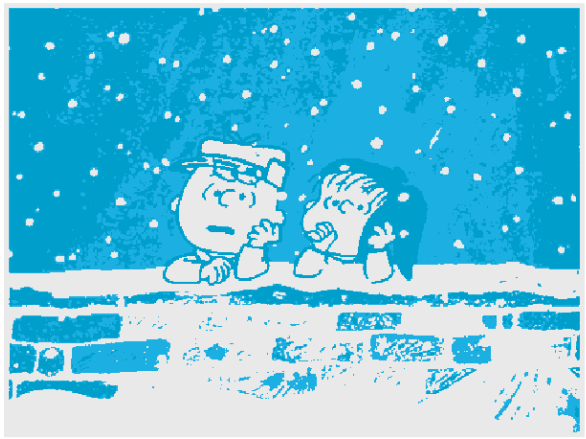
Clustering in Image Quantization

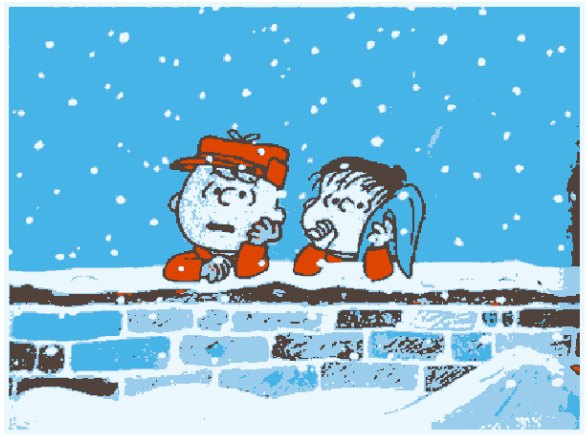
1/1 point (graded)

If we use $K = 3$, which of the following will be the compressed image?









Solution:

As $K = 3$, the resulting image should only consit of 3 colors. The 2nd and 4th choices have more than 3 colors. The 3rd choice has 3 colors, but they are random colors selected from the original image, not the representative colors, which are supposed to be the cluster means of the 3-means algorithm.

Submit You have used 1 of 2 attempts

Answers are displayed within the problem

Discussion

Hide Discussion

Topic: Unit 4 Unsupervised Learning (2 weeks) :Lecture 13. Clustering 1 / 4. Another Clustering Example: Image Quantization

Add a Post

Show all posts ▼ by recent activity ▼

There are no posts in this topic yet.

✖

Learn About Verified Certificates