EXERCISE 6

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1. Mixture of Gaussians

(1) Define the parameters of 3 Gaussian distribution functions in two dimensions.
(2) Generate 300 points in total, 100 points from each of the 3 Gaussians.
(3) Implement the EM algorithm to solve the Mixture of Gaussians problem using the artificial data you just created.
(4) Plot the data points using one color for each Gaussian.
(5) Include in your plot the contours of the final Gaussians estimated by your algorithm.
(6) Implement also the K-means algorithm and cluster the same data set that you created.
(7) Prepare a report containing your final models' parameters and the graph of the clustering generated by both algorithms: Mixture of Gaussians and K-means.

2. Exercise Submission

- Deadline: 14.01.2020/16.01.2020
- Note: Do not forget to include your names in the report!