

Homework Assignment 4 – [30 points]

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STAT437 Unsupervised Learning – Fall 2023

Due: Friday, September 22 on Canvas

Reference the attached Jupyter notebook for the case study 1 and 2 questions.

DATASET

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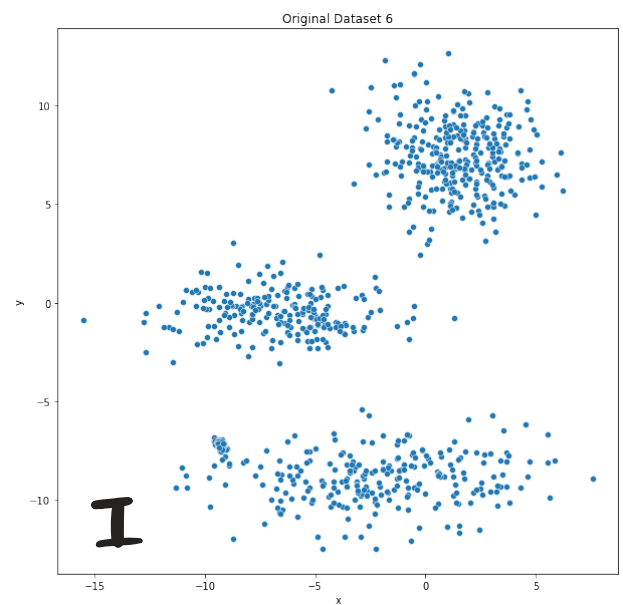
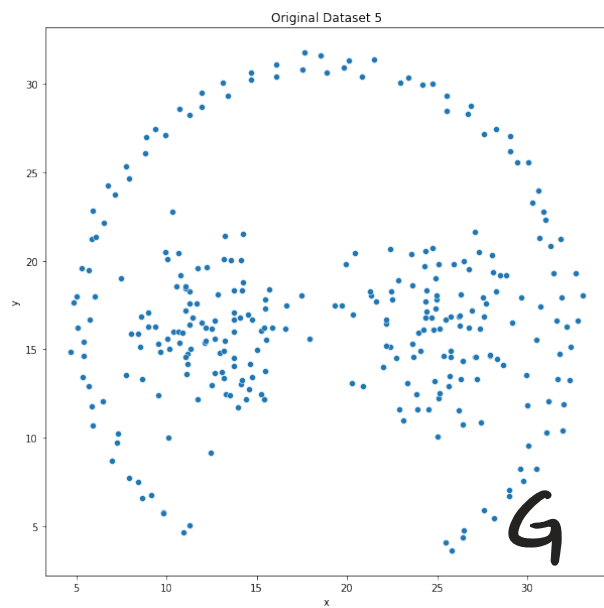
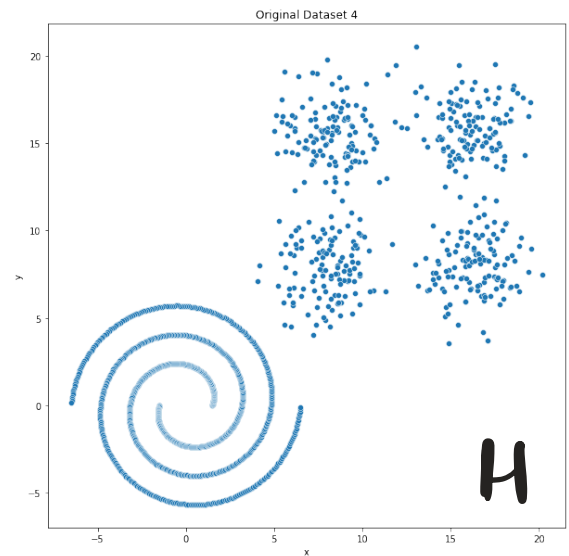
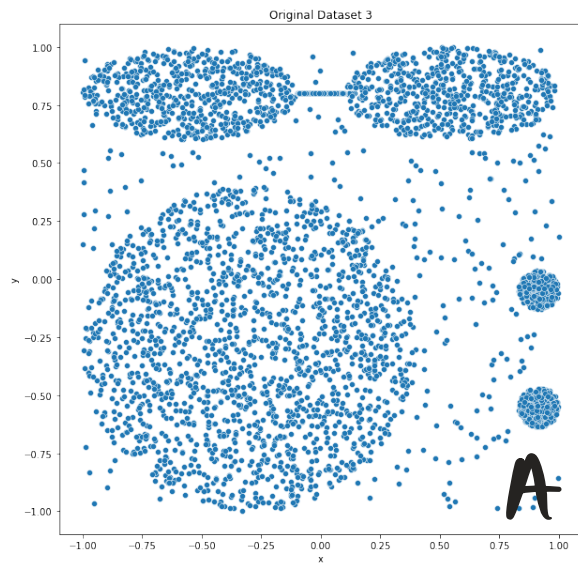
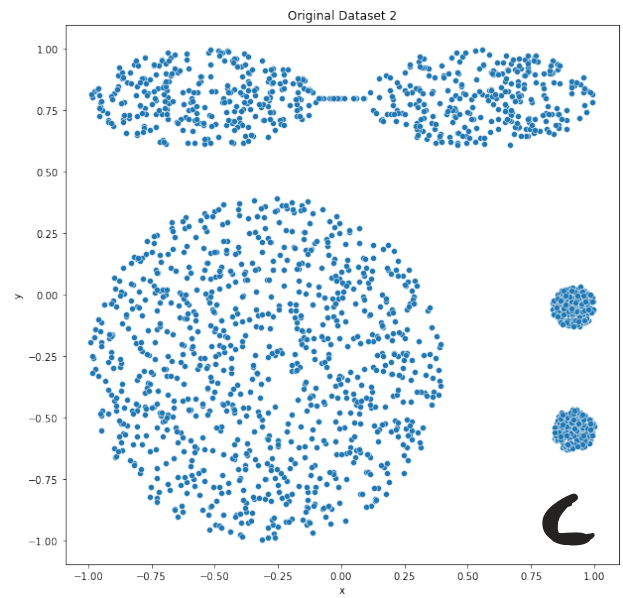
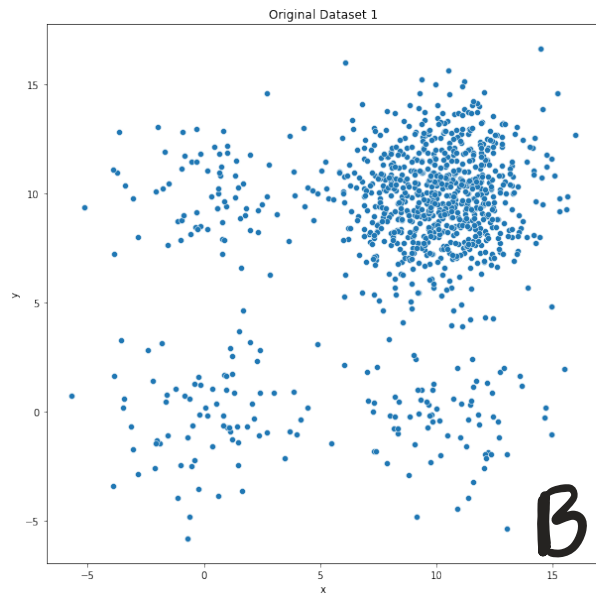
SET

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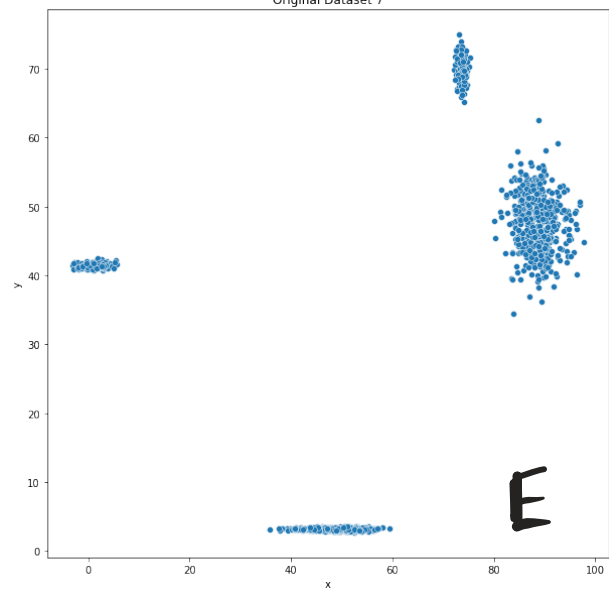
Pdf Questions	Points
1	4
Case Study 1 Questions	Points
1.1	0.25
1.2	0.5
2.1	1.5
2.2	2.5
2.3	0.75
2.4	0.5
2.5	0.5
2.6	0.5
3.1	1
3.2	0.5
3.3	0.5
3.4	0.5
4.1	1
4.2	0.5
4.3	0.5
4.4	0.5
5.1	0.5
5.2	0.5
5.3	0.5
5.4	0.5
Case Study 2 Questions	Points
1.1.1	0.25
1.1.2	1
1.1.3	0.25
1.2.1	0.25
1.2.2	1
1.2.3	0.25
2.1.1	0.25
2.1.2	1
2.1.3	0.25
2.2.1	0.25
2.2.2	1
2.2.3	0.25
3.1.1	0.25
3.1.2	1
3.1.3	0.25
3.2.1	0.25
3.2.2	1
3.2.3	0.25
4.1.1	0.25
4.1.2	1
4.1.3	0.25
4.2.1	0.25
4.2.2	1
4.2.3	0.25

Question #1:

Match the original datasets below (1-10) to the corresponding set of t-SNE plots (A-J).

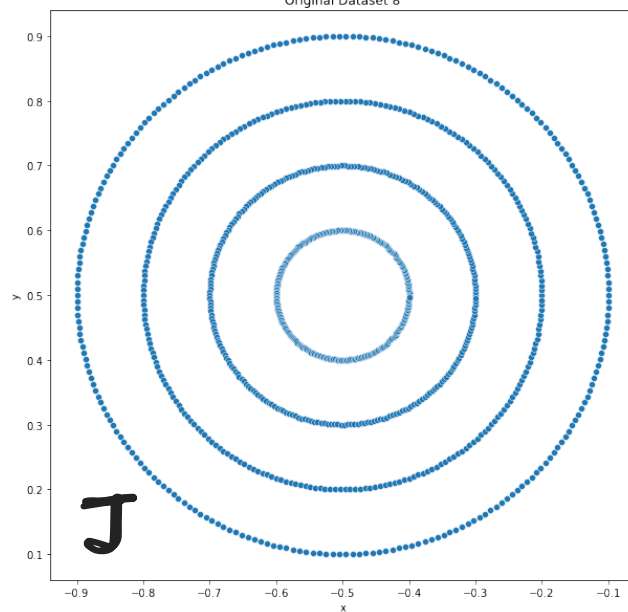


Original Dataset 7



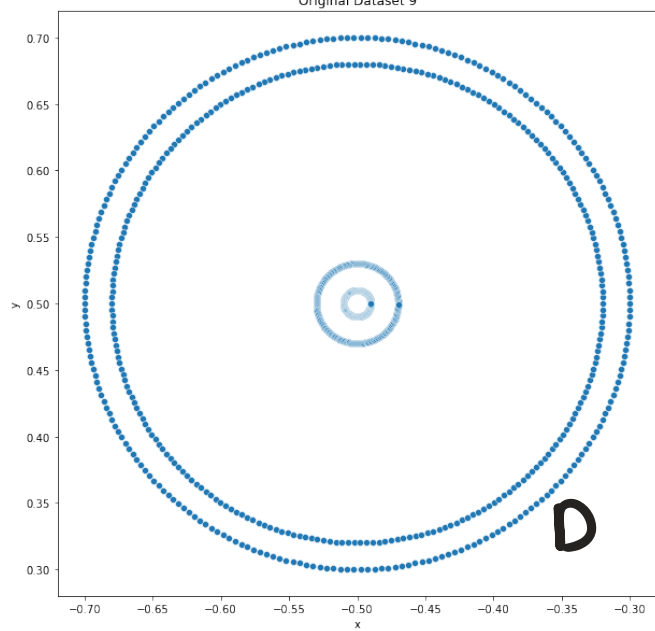
E

Original Dataset 8



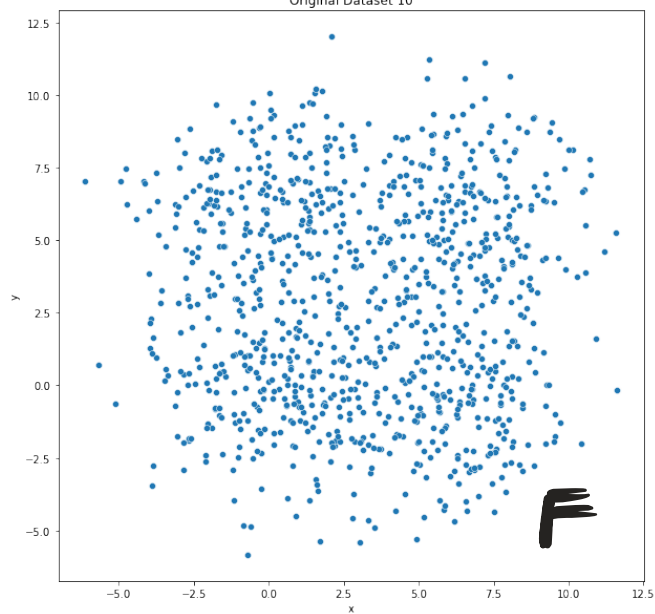
J

Original Dataset 9



D

Original Dataset 10



F