

## ASSIGNMENT 6 REPORT - PART I :

Input format :: 2 "D:/Honey/workspace/Machine Learning/src/part1/test\_data.txt"  
"D:/Honey/workspace/Machine Learning/src/part1/output.txt"

### Run # 1

K = 2

Writing the below content to output file: D:/Honey/workspace/Machine Learning/src/part1/output.txt

cluster-id    List of points ids separated by comma

2

1,2,3,4,6,8,10,11,12,13,14,16,17,18,19,20,21,22,24,25,26,27,28,29,32,33,34,36,37,38,39,40,41,42,48,50,  
51,52,53,54,55,56,57,58,59,60,61,63,64,65,68,69,70,71,72,73,74,75,77,78,80,82,83,84,85,88,89,91,92,9  
3,95,96,97,98,100

1     5,7,9,15,23,30,31,35,43,44,45,46,47,49,62,66,67,76,79,81,86,87,90,94,99

SSE = 7.683094

Done

### Run # 2

K = 2

Writing the below content to output file: D:/Honey/workspace/Machine Learning/src/part1/output.txt

cluster-id    List of points ids separated by comma

2

2,3,4,6,10,11,12,13,14,16,18,19,20,21,22,24,25,26,27,28,29,32,33,34,36,37,38,39,40,41,42,48,50,51,52,  
53,54,55,56,57,58,59,60,61,63,64,65,68,69,70,71,72,73,74,75,77,78,80,82,83,84,85,88,89,91,92,93,95,9  
6,97,100

1     1,5,7,8,9,15,17,23,30,31,35,43,44,45,46,47,49,62,66,67,76,79,81,86,87,90,94,98,99

SSE = 7.68085

Done

### Run # 3

K = 3

Writing the below content to output file: D:/Honey/workspace/Machine Learning/src/part1/output.txt

cluster-id    List of points ids separated by comma

3

3,4,11,14,16,18,21,22,25,26,28,32,33,36,37,40,42,48,50,52,56,59,60,64,68,69,70,71,72,74,80,82,83,84,91,92,95,96,100

2     5,7,9,15,23,30,31,35,43,44,45,46,47,49,62,66,67,76,79,81,86,87,90

1

1,2,6,8,10,12,13,17,19,20,24,27,29,34,38,39,41,51,53,54,55,57,58,61,63,65,73,75,77,78,85,88,89,93,94,97,98,99

SSE = 1.9106917

Done

### Run # 4

K = 4

Writing the below content to output file: D:/Honey/workspace/Machine Learning/src/part1/output.txt

cluster-id    List of points ids separated by comma

4

3,4,11,14,16,18,21,22,25,26,28,32,33,36,37,40,42,48,50,52,56,59,60,64,68,69,70,71,72,74,80,82,83,84,91,92,95,96,100

3     5,31,35,43,67,79

2

1,2,6,8,10,12,13,17,19,20,24,27,29,34,38,39,41,51,53,54,55,57,58,61,63,65,73,75,77,78,85,88,89,93,94,97,98,99

1     7,9,15,23,30,44,45,46,47,49,62,66,76,81,86,87,90

SSE = 1.7813047

Done

### Run # 5

K = 6

Writing the below content to output file: D:/Honey/workspace/Machine Learning/src/part1/output.txt

cluster-id    List of points ids separated by comma

6    2,24,29,34,39,51,53,57,58,61,63,65

5    3,4,16,25,26,32,38,42,52,56,59,60,64,80,100

4    1,8,10,17,94,98,99

3    6,12,13,19,20,27,41,54,55,73,75,77,78,85,88,89,93,97

2    5,7,9,15,23,30,31,35,43,44,45,46,47,49,62,66,67,76,79,81,86,87,90

1    11,14,18,21,22,28,33,36,37,40,48,50,68,69,70,71,72,74,82,83,84,91,92,95,96

SSE = 1.2565169

Done