## **Average Initialization**

|          | feat1 | feat2 | feat3 |
|----------|-------|-------|-------|
| x1       | 1     | 2     | 3     |
| x2<br>x3 | 1     | 4     | 3     |
| х3       | 5     | 6     | 7     |
| x4       | 1     | 2     | 5     |
| x5       | 0     | 1     | 1     |
| x6       | 2     | 3     | 5     |

Given k=3, initial cluster centers are:

$$C1 = ([1,2,3] + [1,4,3]) / 2 = [1,3,3]$$

$$C2 = ([5,6,7] + [1,2,5]) / 2 = [3,4,6]$$

$$C3 = ([0,1,1] + [2,3,5]) / 2 = [1,2,3]$$