**Part: A**

Following are the values of K and the SSE value corresponding to that run:

|  |  |  |
| --- | --- | --- |
| Run No | Value of K | Value of SSE |
| 1 | 3 | 1.9106917060670068 |
| 2 | 4 | 1.6327270968972925 |
| 3 | 5 | 1.34036632690473 |
| 4 | 6 | 1.2922791667502085 |
| 5 | 7 | 1.0395112467373187 |

To compile the program:

Javac PartA.java

To execute the program:

Java PartA 3(no of clusters) test\_data.txt(input file) output.txt(output.file)