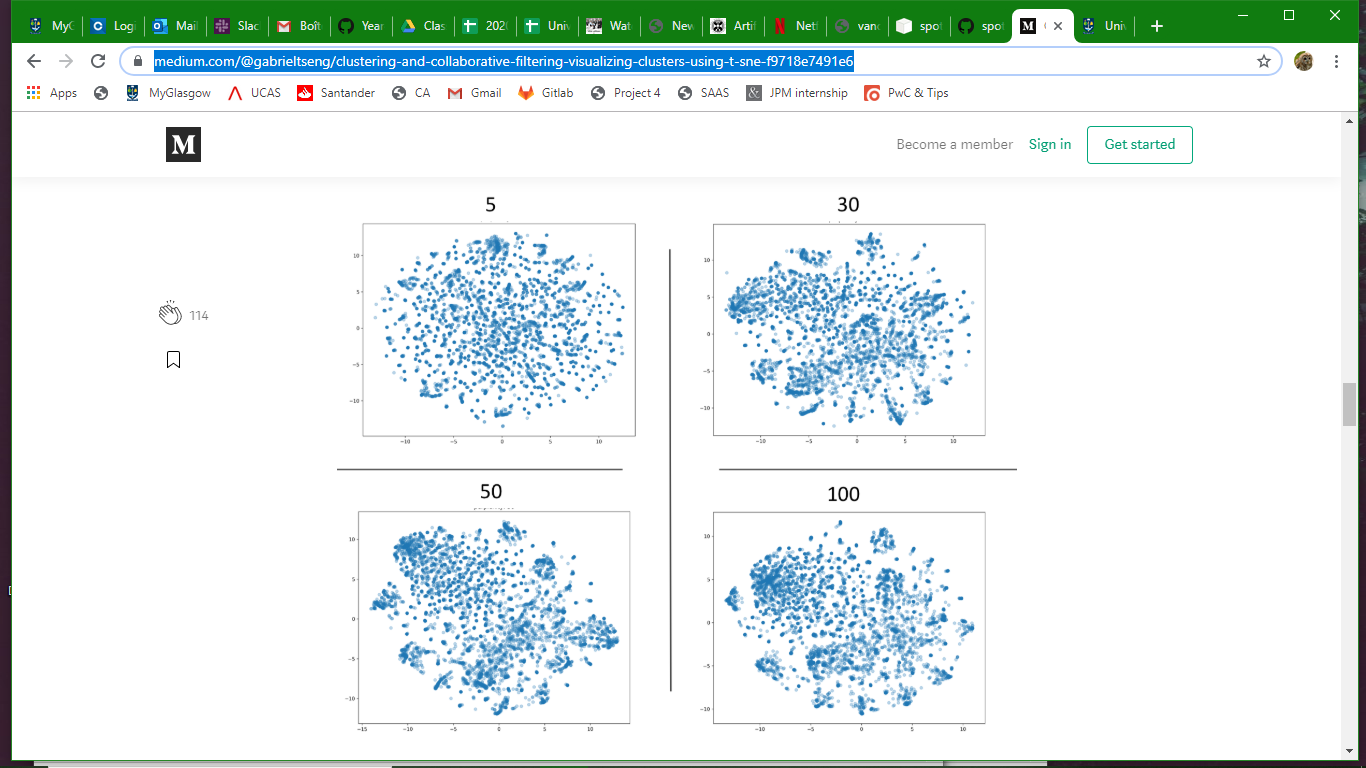
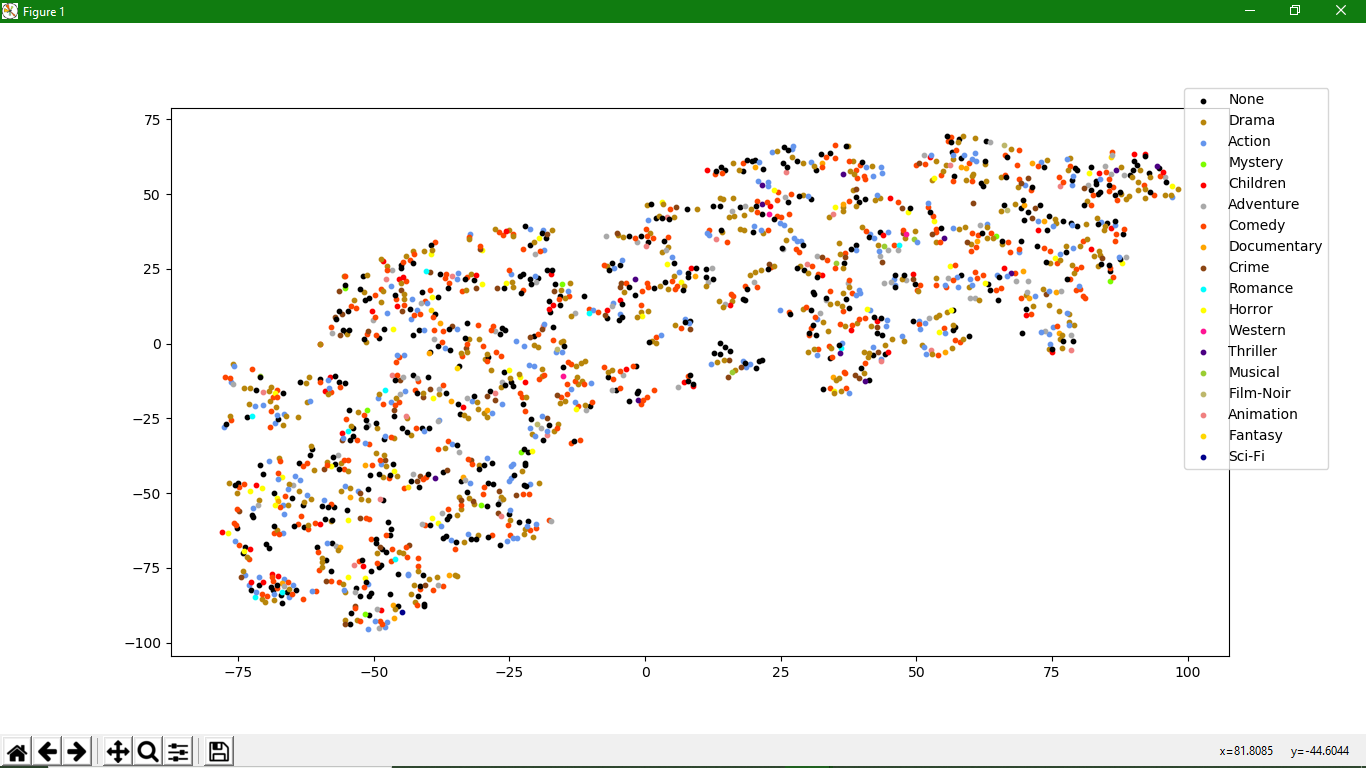
<https://medium.com/@gabrieltseng/clustering-and-collaborative-filtering-visualizing-clusters-using-t-sne-f9718e7491e6>



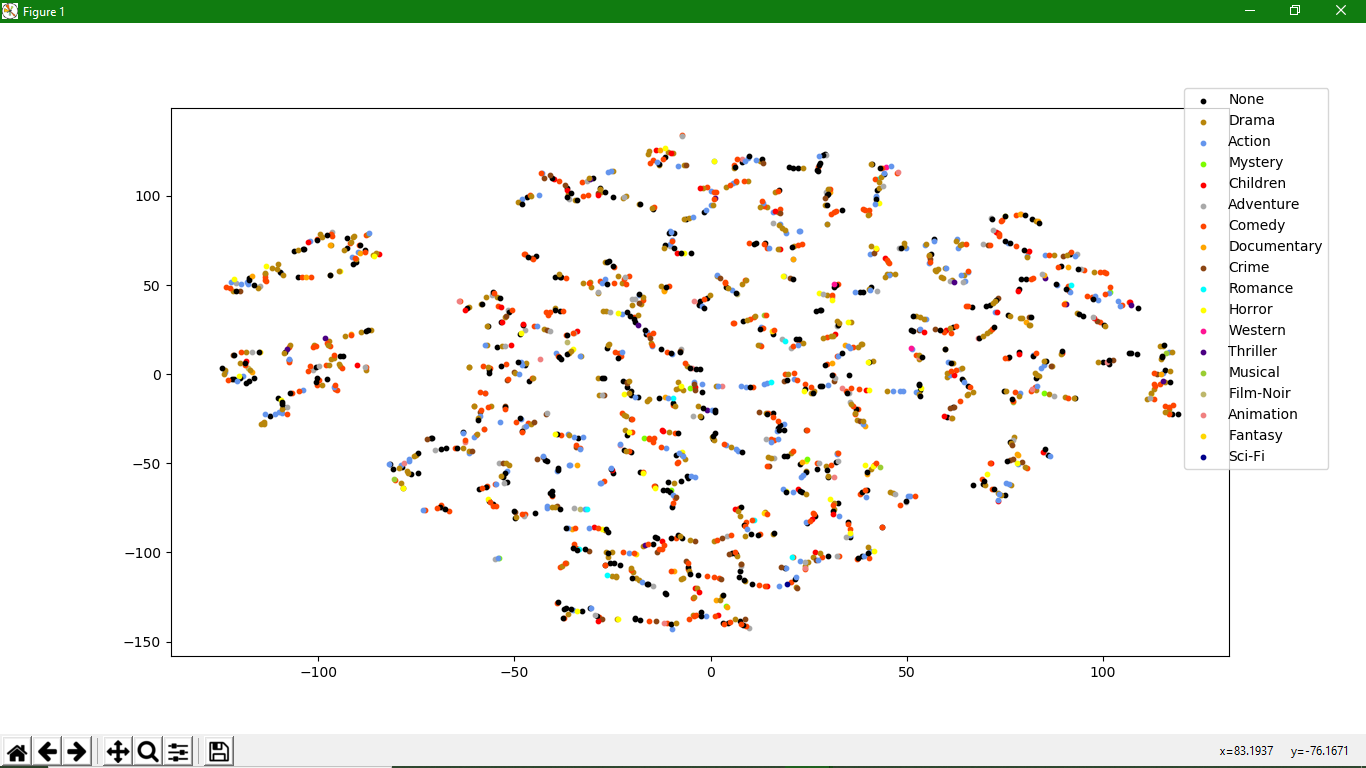
“The perplexity can be interpreted as a smooth measure of the effective number of neighbours. The performance of SNE is fairly robust to changes in the perplexity, and typical values are between 5 and 50.” <http://www.jmlr.org/papers/volume9/vandermaaten08a/vandermaaten08a.pdf>

|  |  |
| --- | --- |
| Perplexity = 5 | Perplexity = 30 |
| Perplexity = 50 | Perplexity = 100 |

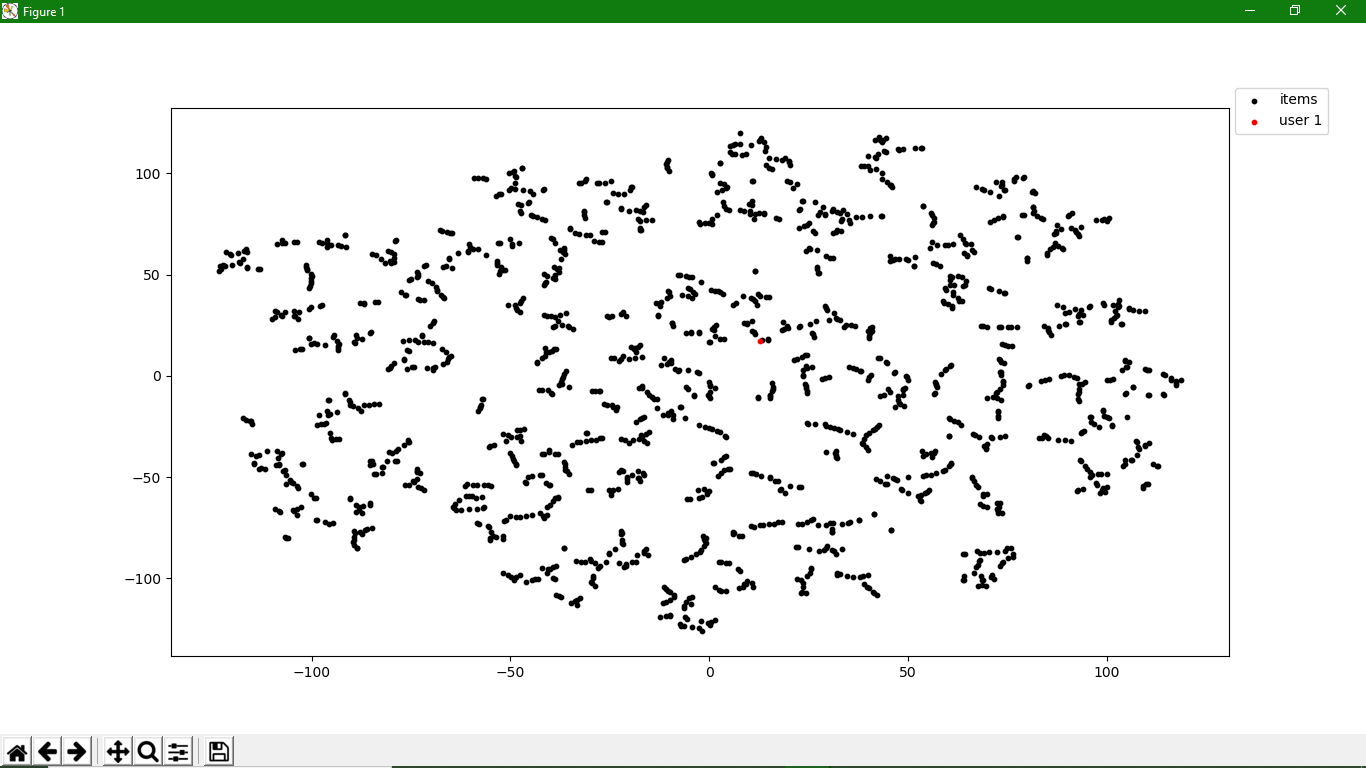
Perplexity = 20.0 (Model iterations : 500, tSNE : 1500) – Overall representation



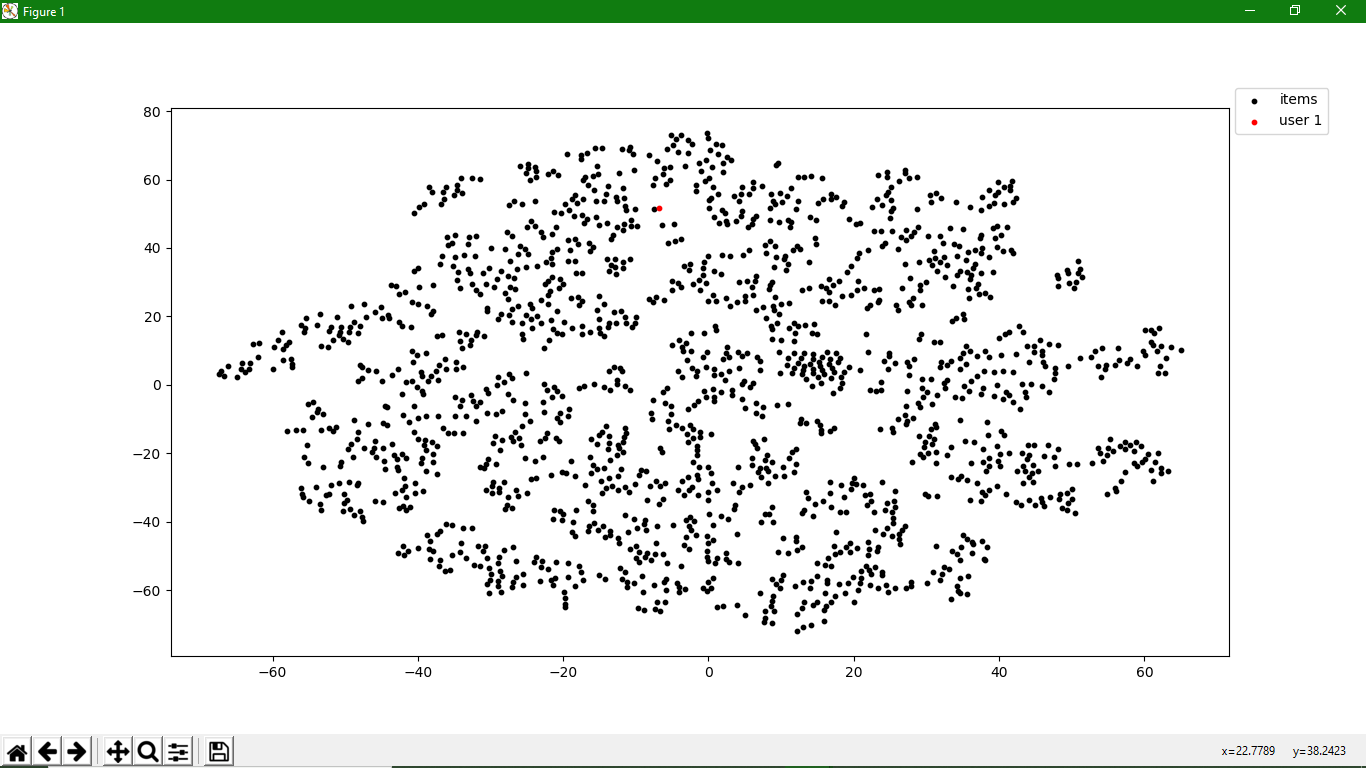
Perplexity = 5.0 (Model iterations : 500, tSNE : 1500) – Overall representation



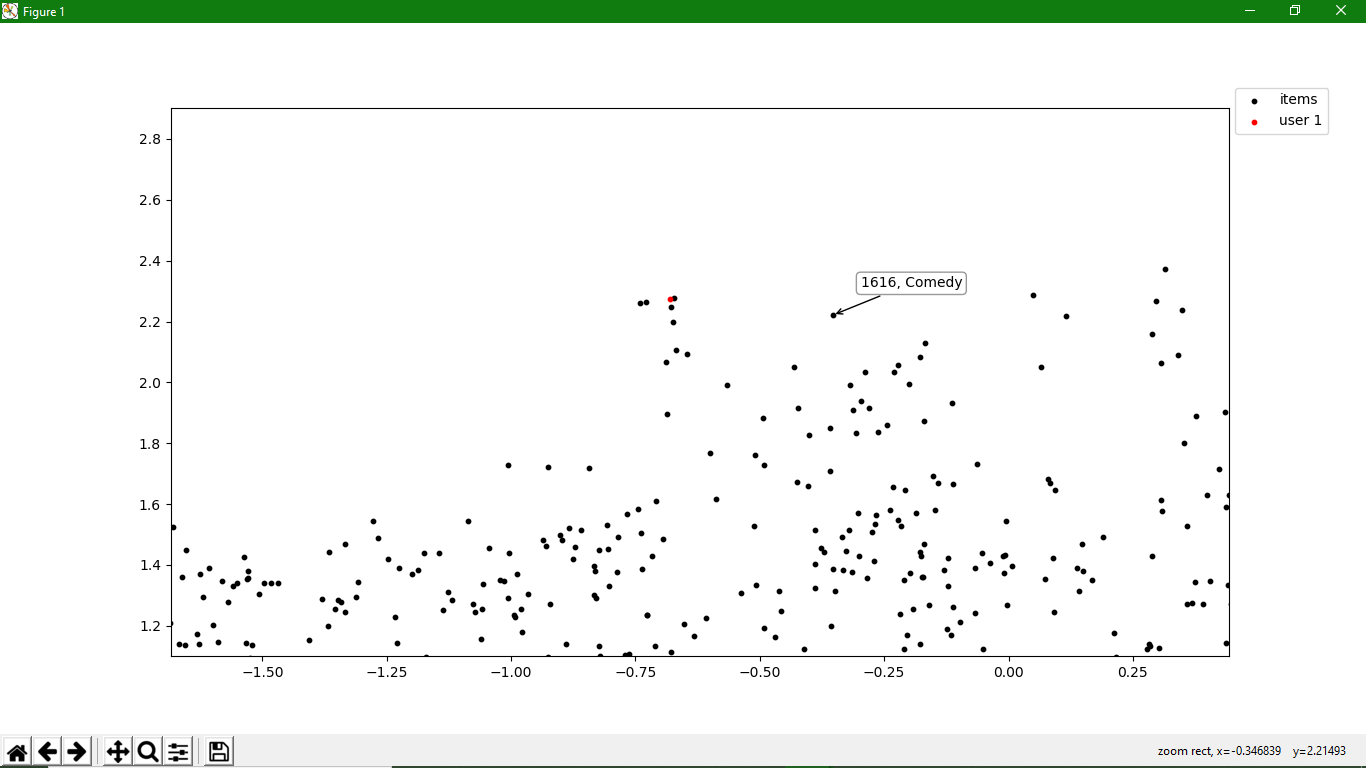
Perplexity = 5.0 (Model iterations : 300, tSNE : 1500) – Single-user representation



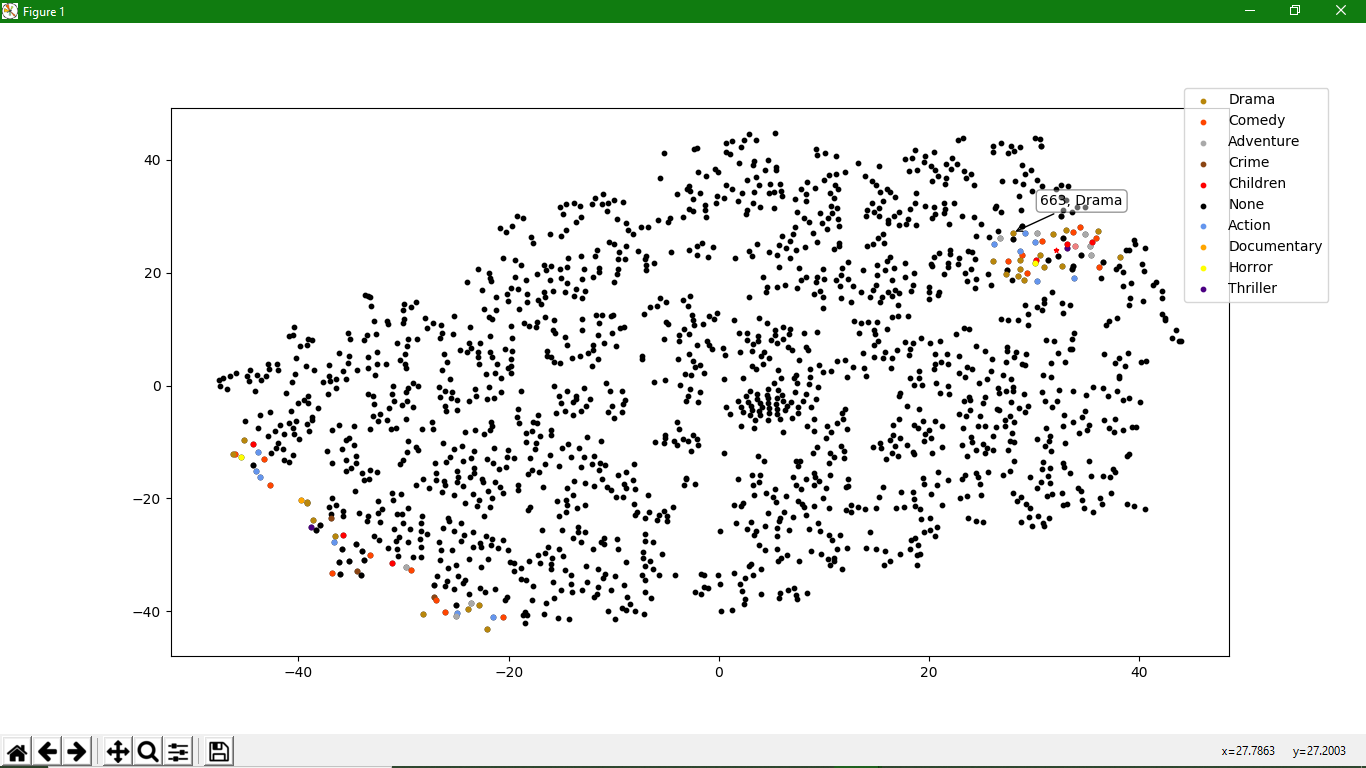
Perplexity = 30.0 (Model iterations : 300, tSNE : 1500) – Single-user representation

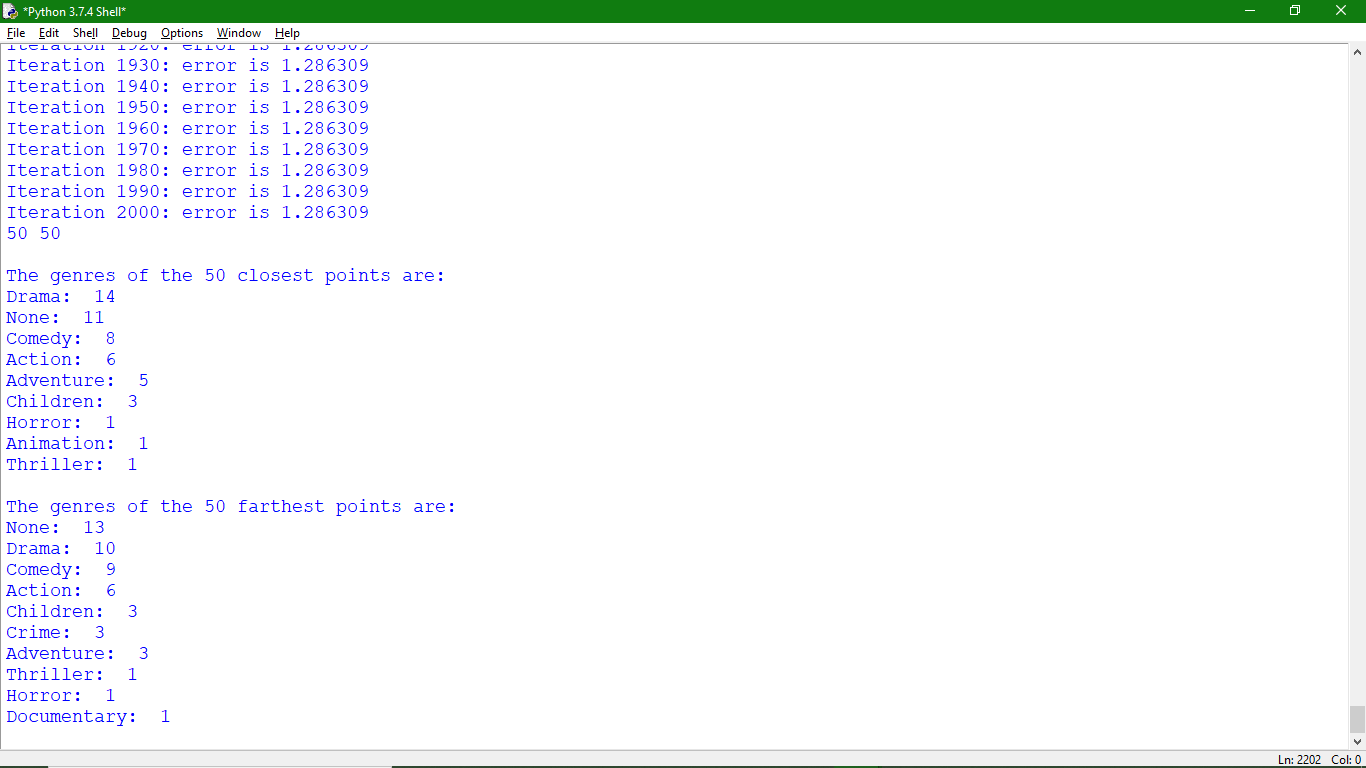
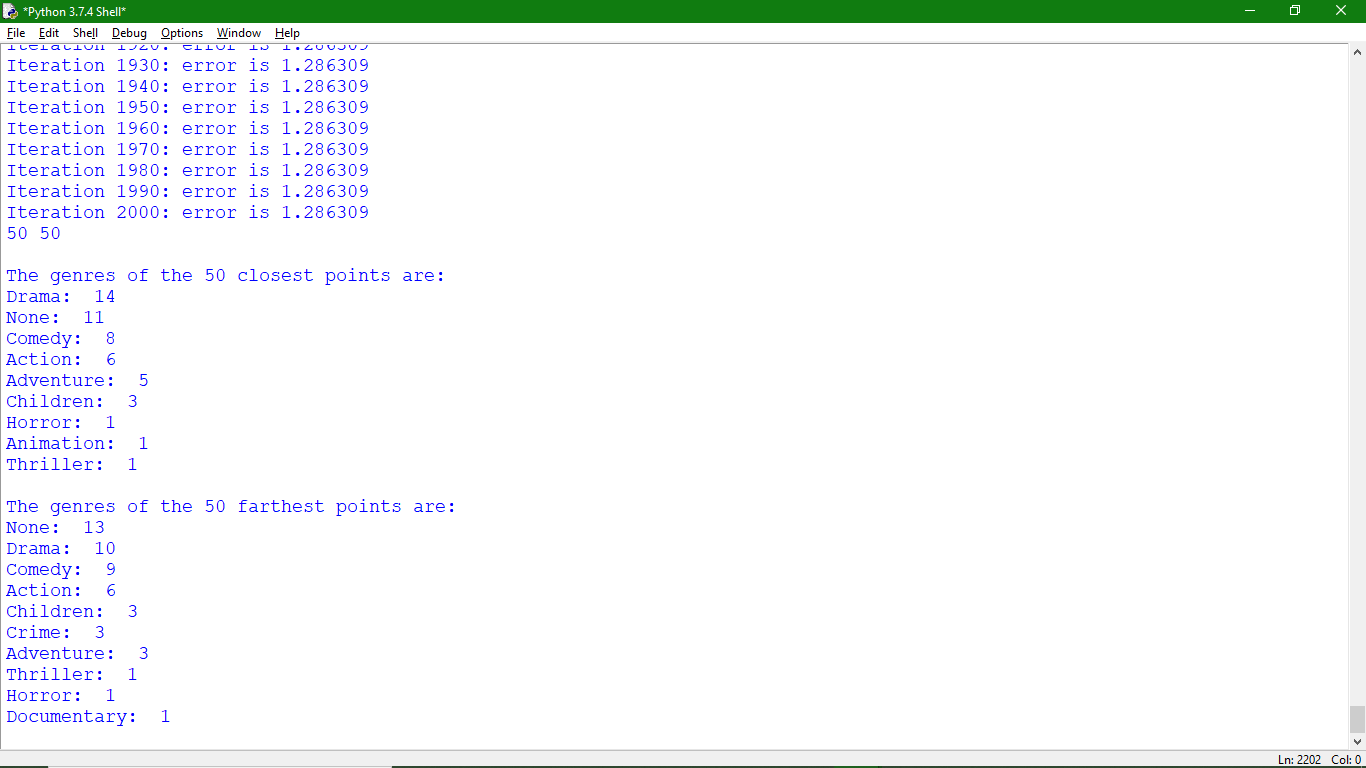


Single-User representation with annotations: Example

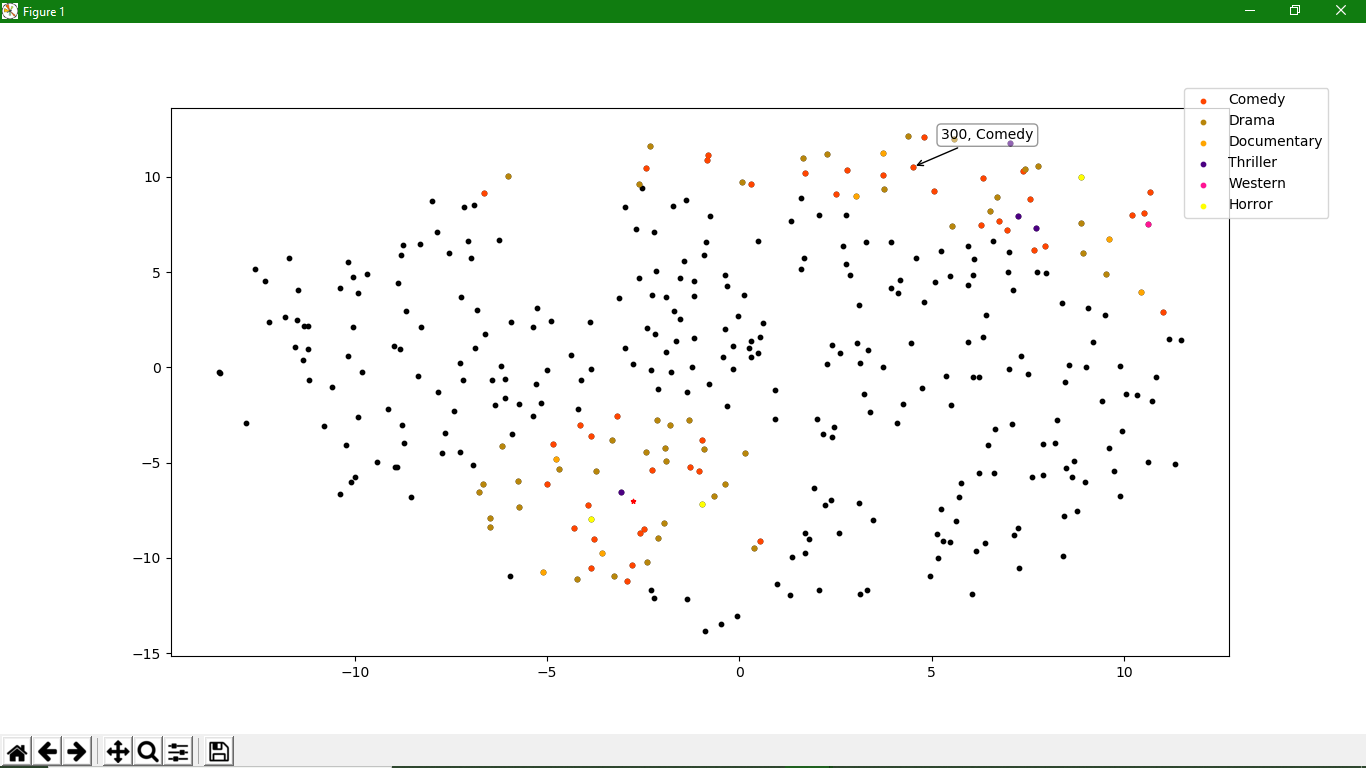


Perplexity = 50.0 (Model iterations : 300, tSNE : 2000) – Single-user representation with 50 closest and 50 farthest points:

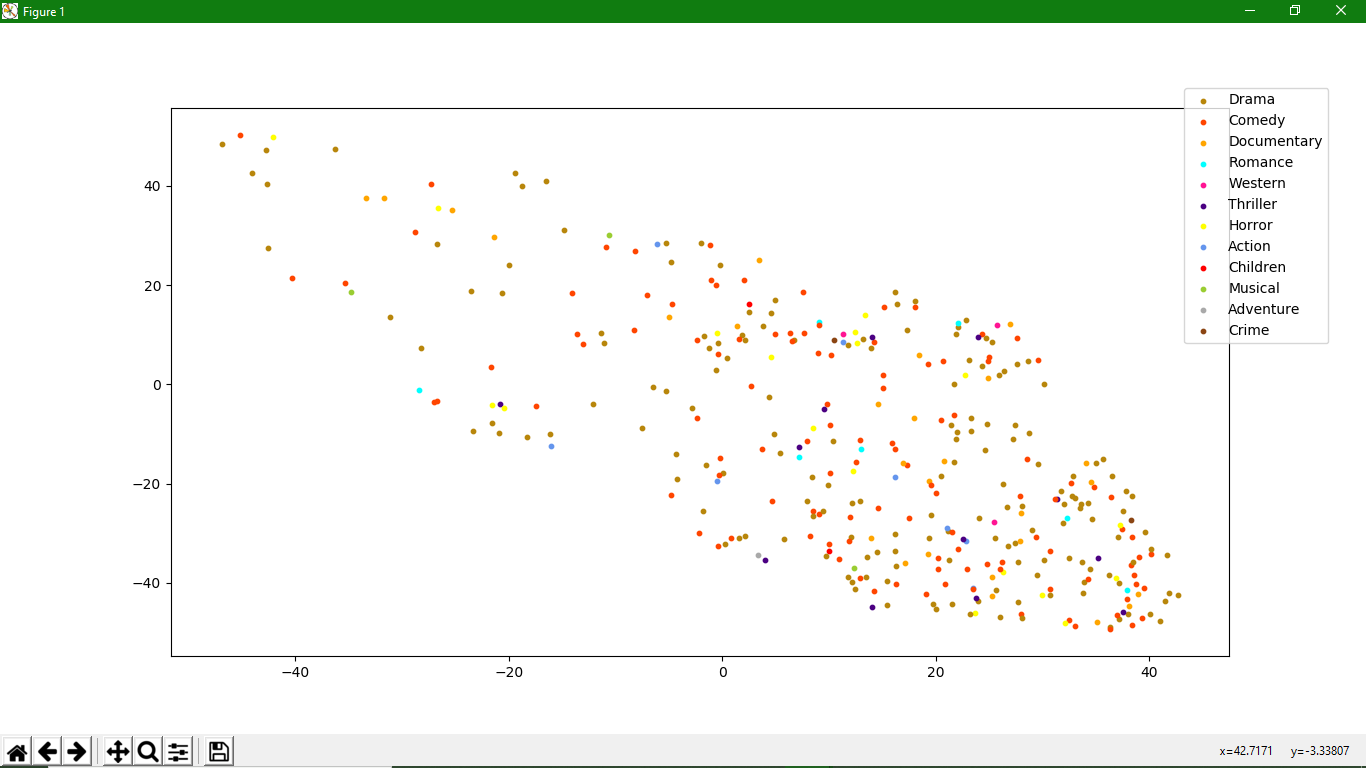




Perplexity = 50.0 (Model iterations : 300, tSNE : 2000) – Single-user representation with 50 closest and 50 farthest points (without “None” values and only showing movies with 1 label)



Perplexity = 50.0 (Model iterations : 300, tSNE : 2000) – Single label visualisation (without “None” values and only showing movies with 1 label)



Perplexity = 50.0 (Model iterations : 100 \* 3 steps, tSNE : 200) – Single user representation (without “None” values and only showing movies with 1 label)

