1. Explain the *vector space model* presented in the lecture. Additionally, establish a connection between this model and the aspects from the previous exercise.

2. How do *nearest neighbor (NN)* and *k-NN* work? Use a self-chosen example to explain the functionality. What are the differences to the *similarity join*? Show the differences based on your example.

3. In the lecture, we introduce the *euclidean distance*. Can we process on any desired dimension with this distance function? Discuss your opinion. Try to use your example from Task 2.

4. We assume that any desired distance function gives us a number of similarity values. How do these values help us to process on multimedia? How can we utilize these values?

5. Can index structures process efficiently on any desired dimensionality and query type? Refer to the the *curse of high dimensionality* and the defined query types from the lecture.

Good Luck!