Your task is to build an information retrieval system for a small collection of documents. The system should:

1. Calculate the **TF-IDF** for each document in the corpus.
2. Use the **Vector Space Model (VSM)** to rank documents based on their cosine similarity to a given query.
3. Incorporate **query expansion** using relevant terms from feedback.

Corpus of Documents:

1. **Document 1**:
   "Machine learning models are powerful tools for data-driven decision-making."
2. **Document 2**:
   "Deep learning, a subset of machine learning, has revolutionized many industries."
3. **Document 3**:
   "Neural networks are essential for deep learning, which is a branch of artificial intelligence."
4. **Document 4**:
   "Machine learning can be applied to both supervised and unsupervised tasks."
5. **Document 5**:
   "Data science involves machine learning, statistics, and big data technologies."

Task:

You are given the following query:

● **Query**: *"machine learning for decision-making"*