# [Day-34 2211cs020196]Write a Python program to convert a given text into a Bag of Words (BoW) representation using CountVectorizer `from` sklearn.feature_extraction.text . `Also, compute the TF-IDF representation using TfidfVectorizer`.Example input: ["I love machine learning", "Machine learning is fun", "Deep learning is amazing"] ¶

In [1]:
```
from sklearn.feature_extraction.text import CountVectorizer, TfidfVectorizer
documents = ["I love machine learning", "Machine learning is fun", "Deep learning is amazing"]
vectorizer = CountVectorizer()
bow_matrix = vectorizer.fit_transform(documents)
print("Bag of Words (BoW) Representation:")
print(vectorizer.get_feature_names_out())
print(bow_matrix.toarray())
tfidf_vectorizer = TfidfVectorizer()
tfidf_matrix = tfidf_vectorizer.fit_transform(documents)
print("\nTF-IDF Representation:")
print(tfidf_vectorizer.get_feature_names_out())
print(tfidf_matrix.toarray())

```

```
Bag of Words (BoW) Representation:
['amazing' 'deep' 'fun' 'is' 'learning' 'love' 'machine']
[[0 0 0 0 1 1 1]
 [0 0 1 1 1 0 1]
 [1 1 0 1 1 0 0]]

TF-IDF Representation:
['amazing' 'deep' 'fun' 'is' 'learning' 'love' 'machine']
[[0.         0.         0.         0.         0.42544054 0.72033345
  0.54783215]
 [0.         0.         0.63174505 0.4804584  0.37311881 0.
  0.4804584 ]
 [0.5844829  0.5844829  0.         0.44451431 0.34520502 0.
  0.        ]]
```