Ex. No. 7	**Word2Vec and GloVe models**
Date of Exercise	**21/10/2025**

Aim:

To train Word2Vec and GloVe models on a given text corpus to obtain word embeddings that capture semantic meaning.

Description:

Word2Vec and GloVe are word embedding techniques used in NLP tasks to represent words in a vector space. Word2Vec uses either the Continuous Bag of Words (CBOW) or Skip-Gram model, while GloVe isbased on matrix factorization of word co-occurrence statistics.

Code:

```
import gensim
from gensim.models import Word2Vec
from gensim.models import KeyedVectors
from gensim.test.utils import common_texts
# Train Word2Vec Model
model_w2v = Word2Vec(sentences=common_texts, vector_size=50, window=5, min_count=1,
workers=4)
model_w2v.save("word2vec.model")
# Load pretrained GloVe embeddings (assuming they are downloaded)
import numpy as np
embedding_index = {}
with open("glove.6B.50d.txt", encoding="utf-8") as f:
```
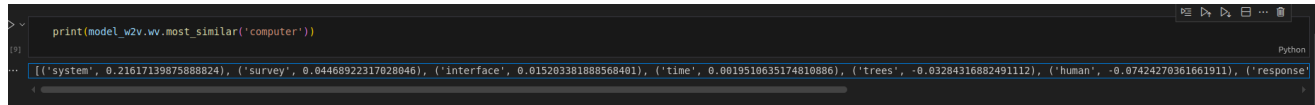
```
for line in f:

values = line.split()

word = values[0]

embedding_index[word] = np.array(values[1:], dtype=np.float32)

print(model_w2v.wv.most_similar('computer'))
```

Sample Output:

```
print(model_w2v.wv.most_similar('computer'))
                                                                            Python
[('system', 0.21617139875888824), ('survey', 0.04468922317028046), ('interface', 0.015203381888568401), ('time', 0.0019510635174810886), ('trees', -0.03284316882491112), ('human', -0.07424270361661911), ('response'
```

Youtube Link

https://youtu.be/YMeN3-ZnjpE?si=1wH883mW-11j2sE5

Result

The code for RNN is Done successful and the output is been verified