

Flowchart

- Starting
- Loading Data
- Display Unique Products (can select first n numbers)
- Generating Text Embeddings
- Request Product Name
- Recommending Similar Products
- Displaying Recommendations
- End

Hugging Face

Hugging Face provides a platform for natural language processing (NLP) that offers a wide range of pre-trained models. We utilized Sentence Transformer models, which convert text into numerical representations called embeddings. We used the pre-trained model sentence-transformers/all-MiniLM-L6-v2.

Result

```
Available products:  
"Prada Striped Shell Belt Bag"  
"Falke - Lhasa Wool And Cashmere-blend Socks - Mens - Navy"  
"peak lapel tuxedo suit jacket"  
"Thom Browne Navy 4-Bar Rib Gloves"  
"Alice Made This - Bayley Round Patina-brass Cufflinks - Mens - Blue"  
C:\Users\shres\AppData\Roaming\Python\Python312\site-packages\tokenization_utils_base.py:1617: FutureWarning: `clean_up_tokenization_spaces` was not set. It will be set to `True` by default. This behavior will be deprecated in transformers v4.45, and will be then set to `False` by default. For more details check this issue: https://github.com/huggingface/transformers/issues/31884  
    warnings.warn(  
Batches: 100%  
  
| 157/157 [00:44<00:00, 3.52it/s]  
Enter the product name to find similar products: "Thom Browne Navy 4-Bar Rib Gloves"  
  
Recommended similar products:  
  
ProductName Similarity  
2652 "Thom Browne Navy 4-Bar Rib Gloves" 1.000000  
911 "4-bar Cashmere Gloves" 0.796649  
2424 "Gucci Navy and Red Striped GG Gloves" 0.793473  
2529 "Rick Owens Black Larry Touchscreen Gloves" 0.782715  
266 "C2H4 Black Agitator Distressed Hybrid Gloves" 0.775546  
PS C:\Users\shres\Downloads\Project\Machine Learning>
```