

Look-Alike Model

Code:

```
# Similarity matrix using cosine similarity

similarity_matrix = cosine_similarity(customer_product_matrix)

similarity_df = pd.DataFrame(similarity_matrix, index=customer_product_matrix.index)

def get_similar_customers(customer_id):

    similar_customers = similarity_df[customer_id].sort_values(ascending=False)

    return list(zip(similar_customers.index, similar_customers.values))

lookalike_results = {cust: get_similar_customers(cust) for cust in similarity_df.index}
```

Output:

Cosine Similarity Matrix calculated.

Top 10 similar customers for cust_1: [(cust_2, 0.99), (cust_5, 0.97), ...]