Cosine Similarity

### Cosine similarity is a measurement that quantifies the similarity between two or more vectors. It’s the cosine of the angle between vectors, which are typically non-zero and within an inner product space.

# Overview

* Cosine similarity is a value bound by a constrained range of 0 and 1.
* The similarity measurement is a measure of the cosine of the angle between the two non-zero vectors A and B.
* Suppose the angle between the two vectors were 90 degrees. In that case, the cosine similarity will have a value of 0. This means that the two vectors are orthogonal or perpendicular to each other.

# Applications

**1. Document Similarity**

A scenario that involves the requirement of identifying the similarity between pairs of a document is a good use case for the utilization of cosine similarity as a quantification of the measurement of similarity between two objects.

**2. Pose Matching**

Pose matching involves comparing the poses containing key points of joint locations.

Pose estimation is a computer vision task, and it’s typically solved using deep learning approaches such as convolutional pose machines, stacked hourglasses and PoseNet, etc.