

## Testing Report

Worked on over 50+ queries different based on the content in dataset. There are two category difficulty level of queries used in the testing (easy and medium to tough). The report contains distance analysis up till 8<sup>th</sup> solution.

Terms:

Easy: Direct answer types queries based on content

Medium to tough: Slightly Indirect queries

Average Distances:

Avg. distance 1<sup>st</sup> solution: 0.64 (approx.)

- Easy: 0.6 (approx.)
- Medium to tough: 0.65 (approx.)

Avg. distance 2<sup>nd</sup> solution: 0.8 (approx.)

Avg. distance 3<sup>rd</sup> solution: 0.85 (approx.)

Avg. distance 4<sup>th</sup> solution: 0.85 (approx.)

Avg. distance 5<sup>th</sup> solution: 0.85 (approx.)

Avg. distance 6<sup>th</sup> solution: 0.86 (approx.)

Avg. distance 7<sup>th</sup> solution: 0.95 (approx.)

Avg. distance 8<sup>th</sup> solution: 0.96 (approx.)

Best result (Row 10):

**Query:** What is the current status of the proposed federal minimum staffing mandate for nursing homes, and how did officials from the Centers for Medicare & Medicaid Services (CMS) address questions related to it during the Open Door Forum?

[[0.23375046253204346, 0.6453694105148315, 0.7323410511016846, 0.7594935297966003, 0.7692516446113586, 0.7909825444221497, 0.8082639575004578, 0.851264476776123]]

Worst result (Row 21):

Query: What is the purpose of the Future Leaders Awards program, and how are individuals nominated for this recognition?

[[0.9581810832023621, 1.1008225679397583, 1.1137512922286987, 1.1385709047317505, 1.1536853313446045, 1.1587934494018555, 1.1775987148284912, 1.179252028465271]]

Analysis (1<sup>st</sup> result):

- The solutions that are based on numbers are generally having > 0.6 distances.
- The solutions that include special characters and hyperlinks are generally lie in range (0.7 – 0.9)
- Easy solutions (one word/sentence answer type) are in range of (0.2 – 0.6)
- “How” type queries have slightly higher distances than “wh” type queries
- Every next solution for a query has slightly higher distance than its previous result.