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CREATE KEYSPACE default_keyspace WITH replication = {'class': 'NetworkTopologyStrategy',
'us-east-2': '3'} AND durable_writes = true;
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CREATE TABLE default_keyspace.researchcollection (
  key frozen<tuple<tinyint, text>> PRIMARY KEY,
  array_contains set<text>,
  array_size map<text, int>,
  doc_json text,
  exist_keys set<text>,
  query_bool_values map<text, tinyint>,
  query_dbl_values map<text, decimal>,
  query_null_values set<text>,
  query_text_values map<text, text>,
  query_timestamp_values map<text, timestamp>,
  query_vector_value vector<float, 3072>,
  tx_id timeuuid
) WITH additional_write_policy = '99p'
  AND bloom_filter_fp_chance = 0.01
  AND caching = {'keys': 'ALL', 'rows_per_partition': 'NONE'}
  AND comment =
'{"collection":{"name":"researchcollection","schema_version":1,"options":{"vector":{"dimension":3
072,"metric":"cosine","sourceModel":"OTHER","service":{"provider":"openai","modelName":"text-
embedding-3-large","authentication":{"providerKey":"ResearchKey.providerKey"},"parameters":{"
organizationId":"","projectId":""}}},"defaultId":{"type":""}}}'
  AND compaction = {'class':
'org.apache.cassandra.db.compaction.UnifiedCompactionStrategy'}
  AND compression = {'chunk_length_in_kb': '16', 'class':
'org.apache.cassandra.io.compress.LZ4Compressor'}
  AND crc_check_chance = 1.0
  AND default_time_to_live = 0
  AND gc_grace_seconds = 864000
  AND max_index_interval = 2048
  AND memtable_flush_period_in_ms = 0
  AND min_index_interval = 128
  AND read_repair = 'BLOCKING'
  AND speculative_retry = '99p';

CREATE CUSTOM INDEX researchcollection_array_contains ON
default_keyspace.researchcollection (values(array_contains)) USING 'StorageAttachedIndex';
CREATE CUSTOM INDEX researchcollection_array_size ON
default_keyspace.researchcollection (entries(array_size)) USING 'StorageAttachedIndex';
CREATE CUSTOM INDEX researchcollection_exists_keys ON
default_keyspace.researchcollection (values(exist_keys)) USING 'StorageAttachedIndex';
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CREATE CUSTOM INDEX researchcollection_query_bool_values ON
default_keyspace.researchcollection (entries(query_bool_values)) USING
'StorageAttachedIndex';
CREATE CUSTOM INDEX researchcollection_query_dbl_values ON
default_keyspace.researchcollection (entries(query_dbl_values)) USING
'StorageAttachedIndex';
CREATE CUSTOM INDEX researchcollection_query_null_values ON
default_keyspace.researchcollection (values(query_null_values)) USING
'StorageAttachedIndex';
CREATE CUSTOM INDEX researchcollection_query_text_values ON
default_keyspace.researchcollection (entries(query_text_values)) USING
'StorageAttachedIndex';
CREATE CUSTOM INDEX researchcollection_query_timestamp_values ON
default_keyspace.researchcollection (entries(query_timestamp_values)) USING
'StorageAttachedIndex';
CREATE CUSTOM INDEX researchcollection_query_vector_value ON
default_keyspace.researchcollection (query_vector_value) USING 'StorageAttachedIndex'
WITH OPTIONS = {'similarity_function': 'cosine', 'source_model': 'OTHER'};

```

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CREATE TABLE default_keyspace.round2 (
    key frozen<tuple<tinyint, text>> PRIMARY KEY,
    array_contains set<text>,
    array_size map<text, int>,
    doc_json text,
    exist_keys set<text>,
    query_bool_values map<text, tinyint>,
    query_dbl_values map<text, decimal>,
    query_null_values set<text>,
    query_text_values map<text, text>,
    query_timestamp_values map<text, timestamp>,
    query_vector_value vector<float, 3072>,
    tx_id timeuuid
) WITH additional_write_policy = '99p'
    AND bloom_filter_fp_chance = 0.01
    AND caching = {'keys': 'ALL', 'rows_per_partition': 'NONE'}
    AND comment =
'{"collection":{"name":"round2","schema_version":1,"options":{"vector":{"dimension":3072,"metric":"cosine","sourceModel":"OTHER","service":{"provider":"openai","modelName":"text-embedding-3-large","authentication":{"providerKey":"ResearchKey.providerKey"},"parameters":{"organizationId":"","projectId":""}}},"defaultId":{"type":""}}}}'
    AND compaction = {'class':
'org.apache.cassandra.db.compaction.UnifiedCompactionStrategy'}
    AND compression = {'chunk_length_in_kb': '16', 'class':
'org.apache.cassandra.io.compress.LZ4Compressor'}

```

```
AND crc_check_chance = 1.0
AND default_time_to_live = 0
AND gc_grace_seconds = 864000
AND max_index_interval = 2048
AND memtable_flush_period_in_ms = 0
AND min_index_interval = 128
AND read_repair = 'BLOCKING'
AND speculative_retry = '99p';
CREATE CUSTOM INDEX round2_array_contains ON default_keyspace.round2
(values(array_contains)) USING 'StorageAttachedIndex';
CREATE CUSTOM INDEX round2_array_size ON default_keyspace.round2
(entries(array_size)) USING 'StorageAttachedIndex';
CREATE CUSTOM INDEX round2_exists_keys ON default_keyspace.round2
(values(exist_keys)) USING 'StorageAttachedIndex';
CREATE CUSTOM INDEX round2_query_bool_values ON default_keyspace.round2
(entries(query_bool_values)) USING 'StorageAttachedIndex';
CREATE CUSTOM INDEX round2_query_dbl_values ON default_keyspace.round2
(entries(query_dbl_values)) USING 'StorageAttachedIndex';
CREATE CUSTOM INDEX round2_query_null_values ON default_keyspace.round2
(values(query_null_values)) USING 'StorageAttachedIndex';
CREATE CUSTOM INDEX round2_query_text_values ON default_keyspace.round2
(entries(query_text_values)) USING 'StorageAttachedIndex';
CREATE CUSTOM INDEX round2_query_timestamp_values ON default_keyspace.round2
(entries(query_timestamp_values)) USING 'StorageAttachedIndex';
CREATE CUSTOM INDEX round2_query_vector_value ON default_keyspace.round2
(query_vector_value) USING 'StorageAttachedIndex' WITH OPTIONS = {'similarity_function':
'cosine', 'source_model': 'OTHER'};
```