```
Question 1, 3, 4
SELECT p.title AS podcast_title,
    s2.id AS segment_id,
    s2.content,
    s2.start_time,
    s2.end_time,
    (s1.embedding <-> s2.embedding) AS distance
FROM segment AS s1
JOIN segment AS s2 ON s2.id <> s1.id
JOIN podcast AS p ON p.id = s2.podcast_id
WHERE s1.id = %s
ORDER BY distance ASC
LIMIT 5;
Question 2
SELECT p.title AS podcast_title,
    s2.id AS segment_id,
    s2.content,
    s2.start_time,
    s2.end_time,
    (s1.embedding <-> s2.embedding) AS distance
FROM segment AS s1
JOIN segment AS s2 ON s2.id <> s1.id
JOIN podcast AS p ON p.id = s2.podcast_id
WHERE s1.id = %s
ORDER BY distance DESC
LIMIT 5;
Ouestion 5
WITH episode_centroids AS (
   SELECT podcast_id, AVG(embedding) AS centroid
    FROM segment
   GROUP BY podcast_id
query_segment AS (
    SELECT s.embedding, s.podcast_id
   FROM segment s
   WHERE s.id = %s
SELECT p.title,
    (qs.embedding <-> ec.centroid) AS distance
FROM query_segment AS qs
JOIN podcast AS p ON p.id = ec.podcast_id
ORDER BY distance ASC
LIMIT 5;
Question 6
WITH episode_centroids AS (
   SELECT podcast_id, AVG(embedding) AS centroid
   FROM segment
   GROUP BY podcast_id
query_segment AS (
   SELECT ec.centroid
    FROM episode_centroids AS ec
   WHERE ec.podcast_id = %s
SELECT p.title,
    (qs.centroid <-> ec.centroid) AS distance
FROM query_segment AS qs
JOIN episode_centroids AS ec ON ec.podcast_id <> %s
JOIN podcast AS p ON p.id = ec.podcast_id
```

```
=== Q1: 5 most similar to 267:476 ===
+----+
| podcast_title
| segment_id | content
start_time |
           end_time | distance |
|-----
+-----
| Podcast: Ryan Graves: UFOs, Fighter Jets, and Aliens | Lex Fridman Podcast
                           | 113:2792 | encounters, human beings, if
we were to meet another alien | 6725.620000 | 6729.860000 | 0.648345 |
| Podcast: Richard Dawkins: Evolution, Intelligence, Simulation, and Memes | Lex
Fridman Podcast #87
                        | 268:1019 | Suppose we did meet an alien
from outer space
                        | 2900.040000 | 2903.080000 | 0.655811 |
| Podcast: Jeffrey Shainline: Neuromorphic Computing and Optoelectronic
Intelligence | Lex Fridman Podcast #225 | 305:3600 | but if we think of
alien civilizations out there
                               | 9479.960000 | 9484.040000 |
0.659543 |
| Podcast: Michio Kaku: Future of Humans, Aliens, Space Travel & Physics | Lex
Fridman Podcast #45
                         | 18:464 | So I think when we meet alien
                      | 1316.860000 | 1319.580000 | 0.666203 |
life from outer space,
| Podcast: Alien Debate: Sara Walker and Lee Cronin | Lex Fridman Podcast #279
| 71:989 | because if aliens come to us
2342.340000 | 2343.620000 | 0.674294 |
+----+
=== Q2: 5 most dissimilar to 267:476 ===
+----+
| podcast_title
| segment_id | content
                                                      ı
start_time | end_time | distance |
|-----
+-----
| Podcast: Jason Calacanis: Startups, Angel Investing, Capitalism, and
Friendship | Lex Fridman Podcast #161 | 119:218 | a 73 Mustang Grande in
                    | 519.960000 | 523.800000 | 1.615769 |
| Podcast: Rana el Kaliouby: Emotion AI, Social Robots, and Self-Driving Cars |
Lex Fridman Podcast #322 | 133:2006 | for 94 car models.
5818.620000 | 5820.820000 | 1.586336 |
| Podcast: Travis Stevens: Judo, Olympics, and Mental Toughness | Lex Fridman
Podcast #223
                        | 283:1488 | when I called down to get the
               | 3709.340000 | 3711.100000 | 1.572553 |
| Podcast: Jeremy Howard: fast.ai Deep Learning Courses and Research | Lex
                           | 241:1436 | which has all the courses
Fridman Podcast #35
                  | 4068.900000 | 4071.140000 | 1.566332 |
pre-installed.
| Podcast: Joscha Bach: Nature of Reality, Dreams, and Consciousness | Lex
Fridman Podcast #212 | 307:3933 | and very few are first class
and some are budget. | 10648.640000 | 10650.960000 | 1.561634 |
```

+
++
++
00. 5 mask similar to 40.544
=== Q3: 5 most similar to 48:511 ===
+
+
+
podcast_title
segment_id   content
start_time   end_time   distance
·
+
Podcast: Andrew Huberman: Neuroscience of Optimal Performance   Lex Fridman
Podcast #139   155:648   Is there something interesting
1 13 there something interesting
to you or fundamental to you about the circuitry of the brain
3798.480000   3805.840000   0.652300
Podcast: Cal Newport: Deep Work, Focus, Productivity, Email, and Social Media
Touchast. Out Newport. Beep Work, 1988, 11988 Line Try, and Society Heat
Lex Fridman Podcast #166   61:3707   of what we might discover about
neural networks?
8498.020000   8500.100000   0.712105
Podcast: Matt Botvinick: Neuroscience, Psychology, and AI at DeepMind   Lex
Fridman Podcast #106   48:512   And our brain is there. There's
some there's quite a few differences. Are some of them to you either interesting
or perhaps profound in terms of in terms of the gap we might want to try to
close in trying to create a human level intelligence.   1846.840000
1865.840000   0.719560
· ·
Podcast: Yann LeCun: Dark Matter of Intelligence and Self-Supervised Learning
Lex Fridman Podcast #258   276:2642   Have these, I mean, small pockets
of beautiful complexity. Does that, do cellular automata, do these kinds of
emergence and complex systems give you some intuition or guide your
understanding of machine learning systems and neural networks and so on?
8628.160000   8646.160000   0.735722
Podcast: Stephen Wolfram: Fundamental Theory of Physics, Life, and the
Universe   Lex Fridman Podcast #124   2:152   So is there something like
that with physics where so deep learning neural networks have been around for a
long time?
610.860000   618.860000   0.736697
<del>-</del>
+
+
+
+
=== 04: 5 most similar to 51:56 ===
=== 04: 5 most similar to 51:56 ===
=== Q4: 5 most similar to 51:56 === +
=== Q4: 5 most similar to 51:56 === +
=== Q4: 5 most similar to 51:56 === +
=== Q4: 5 most similar to 51:56 === +++++
=== Q4: 5 most similar to 51:56 === ++ ++
=== Q4: 5 most similar to 51:56 === ++ ++ + podcast_title
=== Q4: 5 most similar to 51:56 === ++ ++ + podcast_title
=== Q4: 5 most similar to 51:56 === ++ ++   podcast_title   segment_id   content
=== Q4: 5 most similar to 51:56 === ++ ++ + podcast_title

```
| Podcast: George Hotz: Hacking the Simulation & Learning to Drive with Neural
Nets | Lex Fridman Podcast #132 | 308:144 | I mean, we don't understand
                             500.440000 | 502.600000 | 0.668197 |
dark energy, right?
| Podcast: Lex Fridman: Ask Me Anything - AMA January 2021 | Lex Fridman Podcast
| 243:273 | Like, what's up with this dark matter and dark energy stuff? |
946.220000 | 950.120000 | 0.735551 |
| Podcast: Katherine de Kleer: Planets, Moons, Asteroids & Life in Our Solar
System | Lex Fridman Podcast #184 | 196:685 | being like, what the he dark matter and dark energy? | 2591.720000 | 2595.960000 | 0.763114 |
                                          | being like, what the hell is
| Podcast: Alex Filippenko: Supernovae, Dark Energy, Aliens & the Expanding
Universe | Lex Fridman Podcast #137 | 51:36 | Do we have any
understanding of what the heck that thing is? | 216.000000 | 219.000000 |
0.792202
| Podcast: Leonard Susskind: Quantum Mechanics, String Theory and Black Holes |
                      | 122:831 | That is a big question in
Lex Fridman Podcast #41
physics right now.
                               | 2374.900000 | 2377.620000 | 0.802270 |
=== Q5a: 5 episodes similar to segment 267:476 ===
| title
  distance |
·
-----+-----|
| Podcast: Sara Walker: The Origin of Life on Earth and Alien Worlds | Lex
Fridman Podcast #198 | 0.782898 |
| Podcast: Martin Rees: Black Holes, Alien Life, Dark Matter, and the Big Bang |
Lex Fridman Podcast #305 | 0.787950 |
| Podcast: Max Tegmark: Life 3.0 | Lex Fridman Podcast #1
   0.788690 |
 Podcast: Sean Carroll: The Nature of the Universe, Life, and Intelligence |
Lex Fridman Podcast #26 | 0.789065 |
| Podcast: Nick Bostrom: Simulation and Superintelligence | Lex Fridman Podcast
                      | 0.791121 |
=== Q5b: 5 episodes similar to segment 48:511 ===
| title
  distance |
|-----
| Podcast: Christof Koch: Consciousness | Lex Fridman Podcast #2
   0.753780 |
 Podcast: Dileep George: Brain-Inspired AI | Lex Fridman Podcast #115
 Podcast: Tomaso Poggio: Brains, Minds, and Machines | Lex Fridman Podcast #13
   0.761555 |
 Podcast: Elon Musk: Neuralink, AI, Autopilot, and the Pale Blue Dot | Lex
                  | 0.776152 |
Fridman Podcast #49
| Podcast: Philip Goff: Consciousness, Panpsychism, and the Philosophy of Mind |
Lex Fridman Podcast #261 | 0.787206 |
```

-----+

```
=== Q5c: 5 episodes similar to segment 51:56 ===
+-----
| title
| distance |
|-----
·
-----+-----|
| Podcast: Sean Carroll: Quantum Mechanics and the Many-Worlds Interpretation |
Lex Fridman Podcast #47 | 0.776714 |
| Podcast: Stephen Wolfram: Fundamental Theory of Physics, Life, and the
Universe | Lex Fridman Podcast #124 | 0.808071 |
| Podcast: Donald Hoffman: Reality is an Illusion - How Evolution Hid the Truth
| Lex Fridman Podcast #293 | 0.816583 |
| Podcast: Cumrun Vafa: String Theory | Lex Fridman Podcast #204
  0.817347
| Podcast: Avi Loeb: Aliens, Black Holes, and the Mystery of the Oumuamua | Lex
Fridman Podcast #154 | 0.825452 |
+-----
                                 -----
-----+
=== Q6: 5 episodes similar to episode VeH7qKZr0WI ===
+-----
-----+
| title
 distance |
|-----
| Podcast: Tyler Cowen: Economic Growth & the Fight Against Conformity &
Mediocrity | Lex Fridman Podcast #174 | 0.119501 |
| Podcast: Eric Weinstein: Difficult Conversations, Freedom of Speech, and
Physics | Lex Fridman Podcast #163 | 0.125714 |
| Podcast: Michael Malice and Yaron Brook: Ayn Rand, Human Nature, and Anarchy |
Lex Fridman Podcast #178 | 0.128427 |
| Podcast: Steve Keen: Marxism, Capitalism, and Economics | Lex Fridman Podcast
                         0.129163 |
| Podcast: Michael Malice: The White Pill, Freedom, Hope, and Happiness Amidst
Chaos | Lex Fridman Podcast #150 | 0.130409 |
+-----
```