LU11.A02 pgvector installieren

Wie es der Zufall so will, gibt es eine Erweiterung für PostgreSQL names `pgvector`, die eine Vektordatenbank ermöglicht.

Installieren Sie die Erweiterung für PostgreSQL 17 folgendermassen:

- https://github.com/andreiramani/pgvector_pgsql_windows/releases/tag/0.8.1_17.6 runterladen und readme.txt lesen
- Im korrekten Verzeichnis entpacken
- Loggen Sie sich mit einem SQL-Benutzer ein.

```
psql -U postgres
```

- Erstellen Sie den Datentyp `vector`

```
CREATE EXTENSION vector;
```

- ```
  SELECT extname,extrelocatable,extversion FROM pg_extension where extname='vector';
  ```

- Erstellen Sie die Tabelle `documents`

```
CREATE TABLE documents (
    id SERIAL PRIMARY KEY,
    content TEXT,
    embedding vector(384) -- number of dimensions
);
```

* Überprüfen Sie, ob die Tabelle `documents` existiert.

```
INSERT INTO documents (content) VALUES ('Dies ist ein Test.);'
```

* Sie können Überprüfen, ob INSERT-Statements funktionieren.

```
INSERT INTO documents (content) VALUES ('Dies ist ein Test.);'
```

* In diesem Fall haben Sie einen Eintrag in der Tabelle

```
Select count(*) from documents;
```

* Leeren Sie die Tabelle für die richtigen Einträge

```
Delete from documents;
```
```

*

```
INSERT INTO documents (content, embedding) VALUES ('Der Hund läuft durch den
Park.', '[-0.01590, 0.05760, 0.10708, -0.05196, 0.04090, 0.06346, 0.06919,
0.05104, 0.00674, -0.01215, -0.01354, -0.01906, -0.03205, -0.13006, 0.01676,
-0.00448, -0.09528, 0.10145, 0.09780, 0.01471, 0.01939, -0.05531, -0.02355,
-0.01994, -0.05773, 0.04211, -0.06326, 0.01863, 0.00957, -0.03043, 0.05415,
-0.03349, -0.03279, -0.02367, -0.01436, 0.03216, 0.00893, -0.10308,
-0.01476, 0.09056, -0.12382, 0.02256, -0.00536, -0.03052, 0.01583, 0.00256,
-0.02910, 0.06695, -0.03502, -0.04742, 0.07972, -0.02335, 0.14206, -0.02069,
0.02336, 0.00635, -0.06238, -0.03436, 0.03464, -0.03658, -0.00347, -0.03864,
-0.06842, -0.02570, -0.02699, -0.10568, 0.04725, -0.02066, 0.00937, 0.05374,
0.03057, -0.02713, -0.04893, -0.02493, 0.03692, -0.01410, -0.04194, 0.00608,
-0.03253, -0.14563, 0.02550, 0.00821, 0.00269, 0.02471, 0.08793, -0.04526,
0.01918, -0.00521, 0.01333, -0.02217, -0.04947, -0.02222, -0.11442, 0.02217,
-0.01661, -0.00060, -0.00397, 0.04337, -0.00786, 0.04761, 0.01751, 0.08043,
-0.03962, 0.03854, -0.03158, -0.08369, -0.02696, 0.00953, 0.01246, 0.01385,
-0.00471, -0.02527, 0.03858, 0.03237, 0.00159, -0.02689, -0.02381, -0.15586,
-0.04327, -0.02903, 0.03445, 0.02641, -0.05279, 0.05372, -0.01321, -0.02901,
0.04918, -0.00000, -0.07203, -0.07302, -0.01219, -0.00125, 0.03268,
-0.00102, -0.07588, 0.01222, -0.02654, 0.08624, 0.02907, -0.00238, -0.05196,
-0.10719, -0.01028, -0.01095, 0.05186, 0.02246, 0.05778, 0.00433, -0.06304,
0.09878, -0.00926, 0.05241, 0.06771, -0.10728, 0.02559, 0.02227, 0.00776,
0.03988, 0.00839, -0.04617, 0.01720, -0.02429, -0.00953, -0.05472, 0.01001,
0.07832, 0.01126, -0.03362, 0.05528, -0.05969, -0.02338, -0.06053, -0.00545,
0.08938, 0.09355, -0.00068, -0.01336, 0.00555, -0.03235, 0.02389, -0.15267,
0.00174, -0.04071, 0.01486, -0.05847, -0.02776, -0.01536, 0.07795, 0.00223,
0.10342, -0.01869, 0.00823, -0.00532, -0.07391, 0.10231, -0.00424, 0.02963,
0.08466, -0.04365, 0.00264, -0.00886, 0.04803, -0.01138, -0.00050, -0.06622,
0.12869, -0.06032, 0.03138, -0.09917, -0.05930, -0.02692, 0.02115, 0.01557,
-0.01919, -0.01894, -0.01780, -0.02566, 0.03801, -0.04992, -0.02465,
0.02631, -0.05321, -0.04511, -0.00000, 0.05333, -0.03966, -0.00714,
-0.02383, -0.06375, 0.20953, -0.05797, 0.04712, -0.12515, -0.00665,
-0.04260, 0.02494, 0.07486, -0.01544, -0.02905, 0.02455, 0.05139, -0.00764,
-0.09002, 0.05430, 0.00360, -0.00686, -0.00156, 0.07753, -0.04145, 0.02774,
0.08736, 0.03777, -0.06327, -0.02480, -0.02065, -0.03038, -0.00086, 0.03277,
-0.00710, 0.01405, 0.07218, 0.03127, -0.04679, 0.05584, -0.02476, 0.00310,
-0.02074, 0.01972, 0.07229, -0.01142, -0.10555, 0.02156, -0.08322, -0.00100,
0.06746, 0.00573, 0.02355, -0.08255, 0.07384, 0.01578, -0.07407, -0.02456,
-0.06829, 0.02988, 0.09082, 0.08585, -0.07299, 0.02452, 0.02152, -0.08003,
-0.10722, -0.02981, 0.06592, -0.01835, -0.00571, 0.06331, 0.05723, 0.01513,
-0.06582, 0.03041, 0.08508, 0.02036, 0.00920, -0.00179, -0.03281, 0.00088,
0.07919, 0.01332, -0.05353, 0.01477, -0.00852, -0.04808, 0.01272, 0.01205,
0.03206, 0.01440, -0.04214, 0.03412, -0.03875, -0.00000, 0.03829, -0.00449,
0.00374, -0.00946, 0.01690, -0.11200, 0.01257, 0.00165, -0.09551, 0.04445,
-0.03091, 0.07380, -0.04560, 0.05470, 0.01869, 0.02848, -0.00027, 0.02792,
-0.02747, -0.00094, 0.02597, -0.05226, -0.01447, 0.03359, 0.01793, -0.03485,
0.03273, -0.10018, 0.04703, -0.06515, 0.06083, 0.09394, -0.05146, 0.01588,
0.03086, -0.03902, -0.01637, -0.00140, -0.01574, 0.09720, 0.00387, 0.10042,
```

```
0.07453, -0.02445, -0.01154, -0.01369, 0.00689, 0.04894, 0.04651, 0.00300,
-0.05208, -0.01367, 0.03340, 0.06036, 0.01158, 0.03343, -0.01005, -0.06027,
-0.05874, -0.03169, 0.04574, 0.02431, 0.07514, 0.06036]');
```

*

*

*

*

Select count(*) from documents;