m07_06_Armazenando Dados na Prática

May 3, 2021

1 Curso de Python do DS ao DEV

Comunidade DS - Meigarom Lopes

2 Modulo 07 - Banco de Dados

3 Armazenando Dados na Prática

3.0.1 O que é o SQLite 3

"SQLite é uma biblioteca em C que implementa uma pequena, auto-contida, alta confiabilidade e caracteristica de um banco de dados SQL"

3.0.2 Salvando o SQLite 3 na prática

```python
[38]: import pandas as pd
```

```python
[39]: data = pd.read_csv( '/Users/meigarom.lopes/repos/python-ds-ao-dev/
      ↪modulo07_banco_de_dados/products_hm_cleaned.csv' )
```

```python
[40]: data.head()
```

```
[40]:    product_id product_category product_name  product_price  \
     0   636207006    men_jeans_slim    slim_jeans          19.99
     1   636207006    men_jeans_slim    slim_jeans          19.99
     2   636207006    men_jeans_slim    slim_jeans          19.99
     3   636207006    men_jeans_slim    slim_jeans          19.99
     4   636207006    men_jeans_slim    slim_jeans          19.99

            scrapy_datetime  style_id       color_name        fit  size_number  \
     0  2021-04-11 17:48:05    636207            white   slim_fit        187.0
     1  2021-04-11 17:48:05    636207  dark_denim_blue   slim_fit        187.0
     2  2021-04-11 17:48:05    636207  dark_gray_denim   slim_fit        187.0
     3  2021-04-11 17:48:05    636207             gray   slim_fit        187.0
     4  2021-04-11 17:48:05    636207            black   slim_fit        187.0

       size_model  cotton  polyester  elastane  elasterell
     0      31/32    0.99        0.0      0.01         0.0
```

```
1        31/30    0.88         0.1         0.02         0.0
2        31/30    0.88         0.1         0.02         0.0
3        31/30    0.88         0.1         0.02         0.0
4        31/30    0.88         0.1         0.02         0.0
```

[42]:
```python
import sqlite3
```

[88]:
```python
query_showroom_schema = """
    CREATE TABLE vitrine (
        product_id        INTEGER,
        product_category  TEXT,
        product_name      TEXT,
        product_price     REAL,
        scrapy_datetime   TEXT,
        style_id          INTEGER,
        color_name        TEXT,
        fit               TEXT,
        size_number       REAL,
        size_model        TEXT,
        cotton            REAL,
        polyester         REAL,
        elastane          REAL,
        elasterell        REAL
    )
"""
```

[89]:
```python
# connect to dataset
conn = sqlite3.connect( 'hm_db.sqlite' )
cursor = conn.execute( query_showroom_schema )
conn.commit()
```

[81]:
```python
from sqlalchemy import create_engine
```

[90]:
```python
conn = create_engine( 'sqlite:///hm_db.sqlite', echo=False )
```

[100]:
```python
query = """
    SELECT * FROM vitrine_two
"""
df = pd.read_sql_query( query, conn )
df.head()
```

[100]:
```
   product_id product_category product_name  product_price  \
0  636207006    men_jeans_slim   slim_jeans          19.99
1  636207006    men_jeans_slim   slim_jeans          19.99
2  636207006    men_jeans_slim   slim_jeans          19.99
3  636207006    men_jeans_slim   slim_jeans          19.99
4  636207006    men_jeans_slim   slim_jeans          19.99
```

```
       scrapy_datetime  style_id        color_name        fit  size_number  \
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2  2021-04-11 17:48:05    636207   dark_gray_denim   slim_fit        187.0
3  2021-04-11 17:48:05    636207              gray   slim_fit        187.0
4  2021-04-11 17:48:05    636207             black   slim_fit        187.0

  size_model  cotton  polyester  elastane  elasterell
0      31/32    0.99        0.0      0.01         0.0
1      31/30    0.88        0.1      0.02         0.0
2      31/30    0.88        0.1      0.02         0.0
3      31/30    0.88        0.1      0.02         0.0
4      31/30    0.88        0.1      0.02         0.0
```

[92]:
```python
# insert data to table
data.to_sql( 'vitrine', con=conn, if_exists='append', index=False )
```

[99]:
```python
## Command - UPDATE
#query = """
#    UPDATE vitrine
#    SET product_category = 'jeans'
#    WHERE product_id = 636207006
#"""

## Command - DROP TABLE
#query = """
#    DROP TABLE vitrine
#"""

## Command - ALTER TABLE
#query = """
#    ALTER TABLE vitrine
#    RENAME TO vitrine_two
#"""
#
## Command - CREATE INDEX
#query = """
#    CREATE INDEX idx_product_id
#    ON vitrine_two ( product_id )
#"""

conn = sqlite3.connect( 'hm_db.sqlite' )
cursor = conn.execute( query )
conn.commit()
```