HAND ME DOWNS - A Recommerce Platform

PROJECT APPLICATION

Group 13:

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Submission Date: 26th November, 2022

Accessing MySQL database using Python:

We made use of the **mysql.connector** driver to access our database. Following is the code used. For each query, we change sql_select_Query to retrieve the data.

```
import pandas as pd
import matplotlib
import numpy as np

from mysql.connector import Error

try:
    connection = mysql.connector.connect(host='127.0.0.1',
                                         database='project',
                                         user='root',
                                         password='********',
                                         auth_plugin = 'mysql_native_password')
    if connection.is_connected():
        db_Info = connection.get_server_info()
        print("Connected to MySQL Server version ", db_Info)
        cursor = connection.cursor()
        cursor.execute("select database();")
        record = cursor.fetchone()
        print("Your connected to database: ", record)

        sql_select_Query = "select distinct sellerID from Product_soldby_seller"
        df=pd.read_sql( sql_select_Query, con=connection)
        print("The distinct seller id's are:")
        print(df)


except Error as e:
    print("Error while connecting to MySQL", e)
finally:
    if (connection.is_connected()):
        cursor.close()
        connection.close()
        print("MySQL connection is closed")
you should see the following output
'''Connected to MySQL Server version  8.0.17
Your connected to database:  ('classicmodels',)
True
MySQL connection is closed'''
```

Querying the database:

1) sql_select_Query = ‘select distinct sellerID from Product_soldby_seller’

```
Connected to MySQL Server version  8.0.31
Your connected to database:  ('project',)
The distinct seller id's are:
   sellerID
0     00 eo
1     00 vy
2     00 we
3     01 qq
4     02 qa
..      ...
95    91 gz
96    91 tc
97    92 ss
98    93 bc
99    96 sd

[100 rows x 1 columns]
MySQL connection is closed
```

2) sql_select_Query = ‘select p.Product_id, p.product_name, p.product_category, r.Rating from product p, reviewedfo r where p.product_id=r.product_id order by rating desc’

```
Connected to MySQL Server version  8.0.31
Your connected to database:  ('project',)
   Product_id product_name product_category  Rating
0         458        fugit       home decor       5
1         509        sequi            books       5
2         603        sequi       sportsgear       5
3         161         quas         clothing       5
4         148      dolores        furniture       5
..        ...          ...              ...     ...
95        394   architecto        furniture       1
96        421     corporis       home decor       1
97        840        iusto         clothing       1
98        353          nam      accessories       1
99        598   temporibus      accessories       1

[100 rows x 4 columns]
MySQL connection is closed
```

3) sql_select_Query = ‘select o.orderid, o.order_date, o.deliverydate, si.shippertrackingno, si.shipperservicename from orders o, order_shippinginfo os, shippinginformation s, shipperinfo si where o.orderid=os.orderid and os.shippingid=s.shippingid and s.shippertrackingno=si.shippertrackingno’

```
Connected to MySQL Server version  8.0.31
Your connected to database:  ('project',)
   orderid  order_date deliverydate shippertrackingno shipperservicename
0      001  2002-10-29   2001-05-02           4080173               modi
1      008  1991-07-17   2003-05-20           1171457               esse
2      015  1975-08-16   1994-04-12           9518892                sit
3      017  2010-05-10   2003-04-22           5483344              nihil
4      029  1989-11-02   1976-01-24           9548905             labore
..     ...         ...          ...               ...                ...
95     950  1986-09-23   1997-04-26           7175195                 ut
96     971  1975-05-27   1972-09-24           4425752             dolores
97     980  2015-02-04   1976-01-28           7484765                cum
98     982  1995-03-07   1986-12-25           9619646               eius
99     990  1972-12-06   2002-03-17           7150135              fugiat

[100 rows x 5 columns]
MySQL connection is closed
```

4) sql_select_Query = ‘select s.sellerID, e.FirstName, count(p.product_id) as Noofproductssold from product_soldby_seller p, seller s, end_user e where e.userid=s.userid and p.sellerid=s.sellerid group by sellerID’

```
Connected to MySQL Server version  8.0.31
Your connected to database:  ('project',)
   sellerID  FirstName  Noofproductssold
0     00 eo        Amy                 1
1     00 vy  Sylvester                 1
2     00 we       Lisa                 1
3     01 qq     Callie                 1
4     02 qa       Thad                 1
..      ...        ...               ...
95    91 gz     Michel                 1
96    91 tc        Joe                 1
97    92 ss    Deondre                 1
98    93 bc   Raymundo                 1
99    96 sd      Donna                 1

[100 rows x 3 columns]
MySQL connection is closed
```

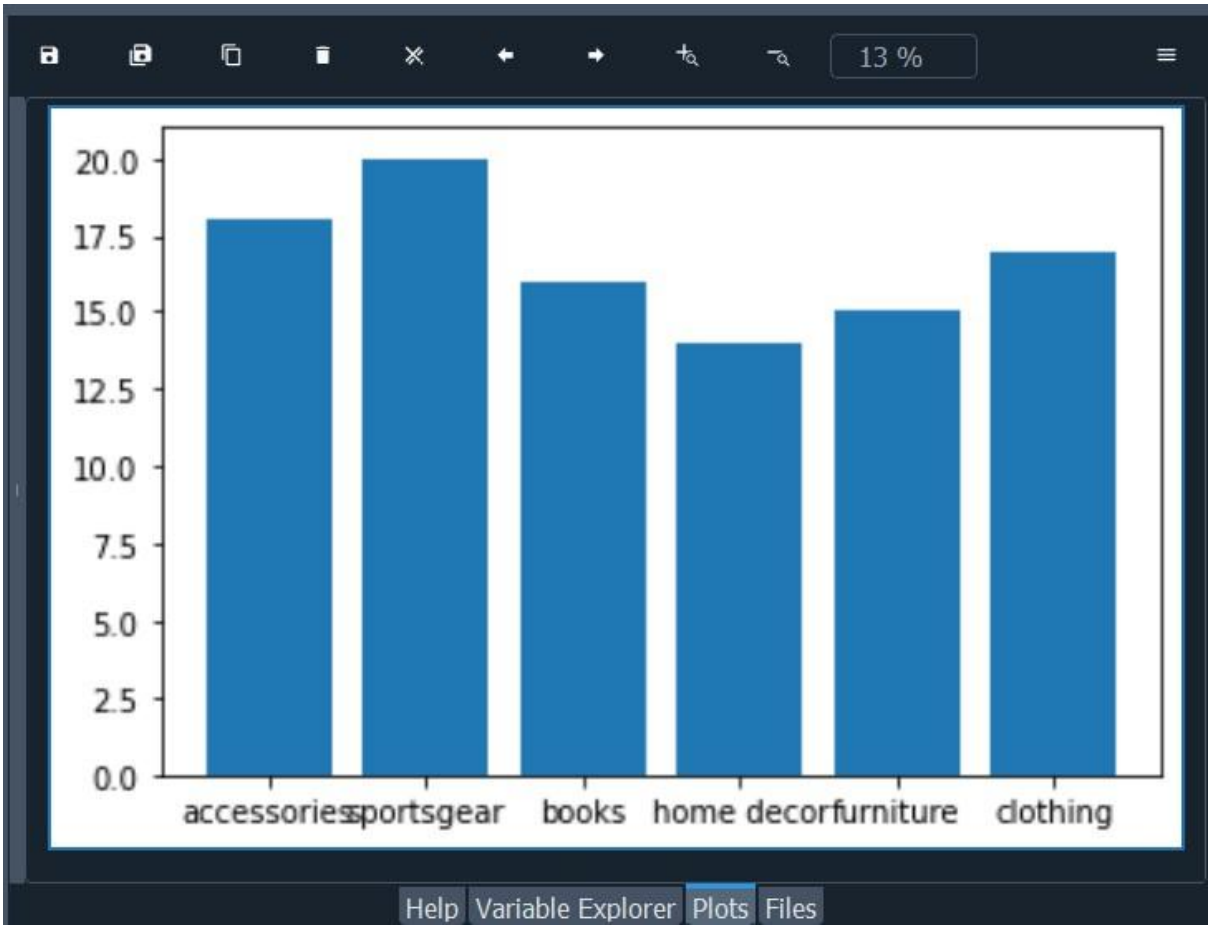
Querying and visualizing the data:

1) sql_select_Query = 'select product_category, count(*) from product group by product_category'

```
Connected to MySQL Server version  8.0.31
Your connected to database:  ('project',)
The product category counts are:
  product_category  count(*)
0      accessories        18
1       sportsgear        20
2            books        16
3       home decor        14
4        furniture        15
5         clothing        17
MySQL connection is closed

(((IPdb [14]))):
```

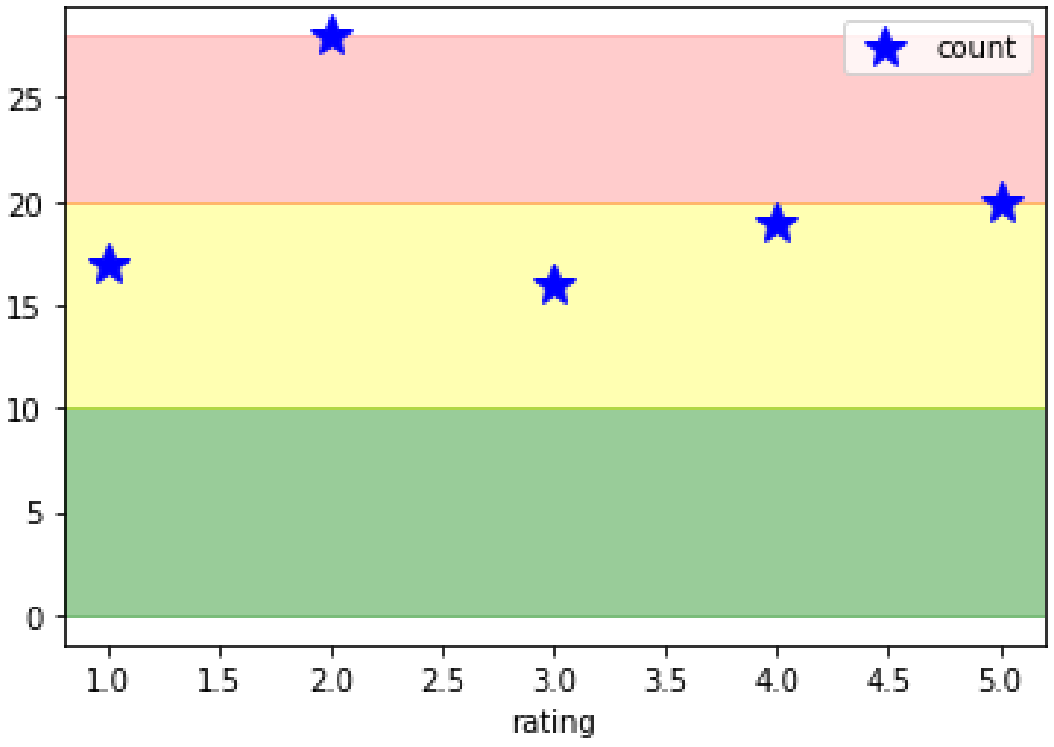
Plotting the count of products in each product category as a barplot: We can see that the dominant product category being sold is sports gears.



2) sql_select_Query = ‘select rating, count(Product_id) from reviewedfo group by rating order by rating desc’

```
Connected to MySQL Server version  8.0.31
Your connected to database:  ('project',)
   rating  count(Product_id)
0       5                20
1       4                19
2       3                16
3       2                28
4       1                17
MySQL connection is closed
```

Plotting the frequency of the rating values from 1-5: The green region symbolizes a low count while the pink region symbolizes a relatively higher count. We can see that the most common rating for the products is 2.



3) sql_select_Query = ‘select e.gender, count(b.UserID) from end_user e, buyer b where b.UserID=e.UserID group by e.gender’

```
Connected to MySQL Server version  8.0.31
Your connected to database:  ('project',)
The product category counts are:
  gender  COUNT(b.UserID)
0      F              53
1      M              47
MySQL connection is closed
```

Plotting the gender of the users as a pie chart: We can see that there are more female users than male users.