

PROG8420-22W-Sec1-Programming for Big Data

Final Project P3: Travel Agency System

April 20<sup>th</sup>, 2022

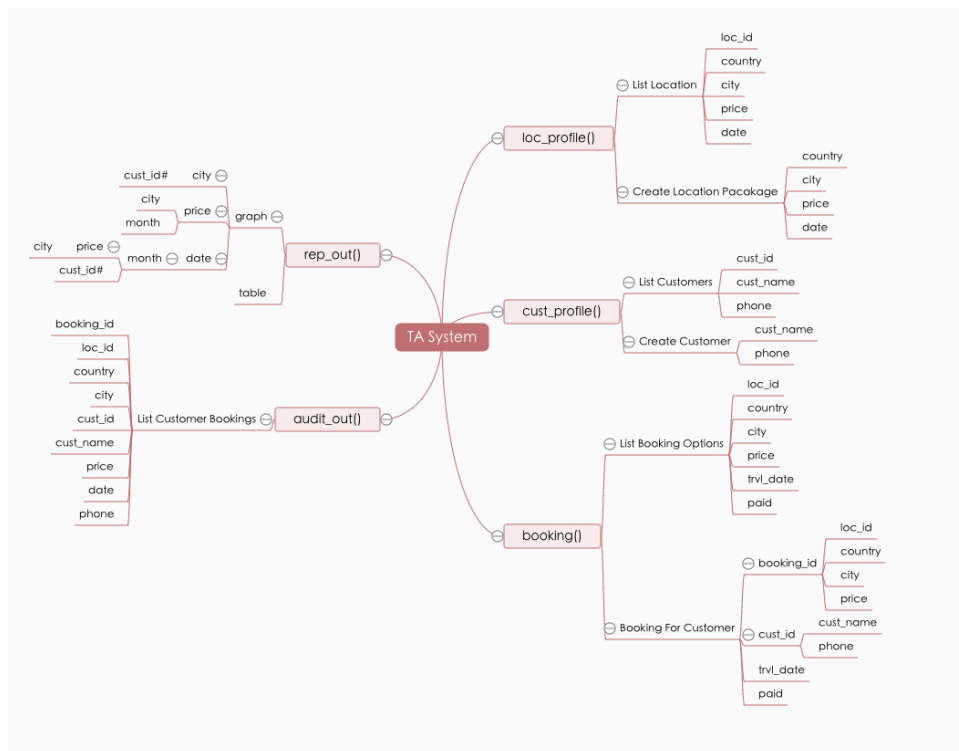
Group Members

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### P3 : Travel Agency System

- The system will allow record locations profile
- The system will allow record customers profile
- The system will allow record booking (customer – locations – price – date period)
- The system will allow the staff to extract reports from the system (reports : table + graph)
- All records on the system will allow audit (data storage is needed)



```

Run: main x
/Users/kuan/PycharmProjects/conestoga/SysProj/venv/bin/python /Users/kuan/PycharmProjects/conestoga/SysProj/main.py
main
Sqlite3 Path: /Users/kuan/PycharmProjects/conestoga/SysProj/SysTA.db
2.6.0
Connected Database
**** Hello Travel Agency ****
admin password:123
  
```

main.py

```

import admin_func as sa
from trip_db import *
print('main')
  
```

```

if __name__ == '__main__':
  
```

```
dbPath=input("Sqlite3Path:")

create_connection(r"{}".format(dbPath))

print("****Hello Travel Agency****")

login()
```

```
def login(): #pw:123
pw=input("admin password:")
if pw=="123":
    print("login Successful")
    print("[1]Location",
          "[2]Customer",
          "[3]Booking",
          "[4]Report",
          "[5]Audit")
option(input("action:"))
```

```
def option(opt):
if opt=="1":
loc_profile()
elif opt=="2":
cust_profile()
elif opt=="3":
booking()
elif opt=="4":
rep_out()
elif opt=="5":
audit_out()
else:
    print("404")
```

---

```

**** Hello Travel Agency ****
admin password:123
login Successful
[1]Location [2]Customer [3]Booking [4]Report [5]Audit
action:1
[1]List Location [2]Enter Location:
1
List Locations
***open database success***
List Locations

    loc_id country      city    price  start_date  end_date
0         1  Canada    Waterloo  2000.0  04-10-2022  04-17-2022
1         2  Canada      Toronto  2000.0  04-11-2022  04-18-2022
2         3  Canada    Kitchener  5000.0  05-16-2022  05-15-2023
-End-

Process finished with exit code 0
|

```

```

[1]Location [2]Customer [3]Booking [4]Report [5]Audit
action:1
[1]List Location [2]Enter Location:
2
***open database success***
Enter Country:China
Enter City:Shanghai
Enter Price:5000
The trip package available period:
Start Date (MM-DD-YYYY):04-20-2022
End Date (MM-DD-YYYY):04-19-2023
Enter successful
***open database success***
List Locations

    loc_id country      city    price  start_date  end_date
0         1  Canada    Waterloo  2000.0  04-10-2022  04-17-2022
1         2  Canada      Toronto  2000.0  04-11-2022  04-18-2022
2         3  Canada    Kitchener  5000.0  05-16-2022  05-15-2023
3         4   China    Shanghai  5000.0  04-20-2022  04-19-2023
-End-

```

admin\_func.py

```
import sqlite3
```

```
import trip_db as t
```

```

def loc_profile():

    print("[1]List Location",

    "[2]Enter Location:")

    opt=input()

    if opt=="1":

        print("List Locations")

        print(t.rtrv_data('loc_profile','Locations'))

    elif opt=="2":

        conn=sqlite3.connect('SysTA.db')

        print("***open database success***")

        loc_country=input("Enter Country:")

        loc_city=input("Enter City:")

        loc_price=input("Enter Price:")

        print("The trip package available period:")

        loc_start_date=input("Start Date(MM-DD-YYYY):")

        loc_end_date=input("End Date(MM-DD-YYYY):")

        loc_list=[(loc_country,loc_city,loc_price,loc_start_date,loc_end_
date)]

        with conn:

            conn=sqlite3.connect('SysTA.db')

            c=conn.cursor()

            executemany("INSERTIN TO\
loc_profile(country,city,price,start_date,end_date)VALUES(?,?,?,?,?)
;",loc_list)

            conn.commit()

            conn.close()

        print("Enter successful")

        print(t.rtrv_data('loc_profile','Locations'))

```

```
else:

    print("404")

print("-End-")
```

trip\_db.py

```
def rtrv_data(tbl,list_name):

    conn=sqlite3.connect('SysTA.db')

    c=conn.cursor()

    print("***open data base success***")

    print(f"List{list_name}")

    cursor=c.execute(f"SELECT * FROM{tbl};")

    colnames=cursor.description

    header=[]

    for head in col names:

        header.append(head[0])

    print()

    audit_list=cursor.fetchall()

    pd.set_option('display.max_columns',None)

    df=pd.DataFrame(audit_list,columns=header)

    return df

conn.close()
```

---

```

[1]Location [2]Customer [3]Booking [4]Report [5]Audit
action:2
[1]List Customers [2]Create Customer Profile
1
List Customers
***open database success***
List Customers

    cust_id cust_name    phone
0         1   Shirley 26705424
1         2     Mary 26671810
2         3   Chandan 12345678
3         4   Chandan 12345678
4         5   SaoKuan 9876543
-End-

Process finished with exit code 0

```

```

[1]Location [2]Customer [3]Booking [4]Report [5]Audit
action:2
[1]List Customers [2]Create Customer Profile
2
Enter Customer Name:Tommy
Enter Customer Phone:12345678
Enter successful
***open database success***
List Customers

    cust_id cust_name    phone
0         1   Shirley 26705424
1         2     Mary 26671810
2         3   Chandan 12345678
3         4   Chandan 12345678
4         5   SaoKuan 9876543
5         6     Tommy 12345678
-End-

Process finished with exit code 0

```

admin\_func.py

```
def cust_profile():
```

```

print("[1]List Customers",
      "[2]Create Customer Profile")
opt=input()
if opt=="1":
    print("List Customers")
    print(t.rtrv_data('cust_profile','Customers'))
elif opt=="2":
    conn=sqlite3.connect('SysTA.db')
    cust_name=input("Enter Customer Name:")
    phone=input("Enter Customer Phone:")
    cust_list=[(cust_name,phone)]
    with conn:
        conn=sqlite3.connect('SysTA.db')
        c=conn.cursor()
    executemany("INSERT INTO cust_profile(cust_name,phone)VALUES(?,?);",cust_list)
    conn.commit()
    conn.close()
    print("Enter successful")
    print(t.rtrv_data('cust_profile','Customers'))
else:
    print("404")
print("-End-")

```

---



```
[1]Location [2]Customer [3]Booking [4]Report [5]Audit  
action:3
```

```
[1]List Booking Options [2]Booking for customer
```

```
1
```

```
List Bookings
```

```
***open database success***
```

```
List booking
```

	booking_id	trvl_date	paid	fk_loc_id	fk_cust_id
0	101	04-11-2022	1	1	1
1	102	04-11-2022	1	2	2
2	103	05-18-2022	1	102	3
3	104	05-18-2022	1	102	3
4	105	05-15-2022	1	2	4
5	106	19-04-2022	1	1	5

```
-End-
```

```
Process finished with exit code 0
```

```
[1]List Booking Options [2]Booking for customer
```

```
2
```

```
Enter Customer ID:6
```

```
Enter Location ID:4
```

```
Enter Travel Date (MM-DD-YYYY):04-20-2022
```

```
Customer Paid? ('1' if Paid, '0' if not Paid):1
```

```
booking_id cust_id trvl_date paid
```

```
['04-20-2022', True, 4, 6]
```

```
***open database success***
```

```
List booking
```

	booking_id	trvl_date	paid	fk_loc_id	fk_cust_id
0	101	04-11-2022	1	1	1
1	102	04-11-2022	1	2	2
2	103	05-18-2022	1	102	3
3	104	05-18-2022	1	102	3
4	105	05-15-2022	1	2	4
5	106	19-04-2022	1	1	5
6	107	04-20-2022	1	4	6

```
-End-
```

```
Process finished with exit code 0
```

```
admin_func.py
```

```
def booking():#cust-loc-price-dateperiod
```

```

print("[1]List Booking Options",
      "[2]Booking for customer")

opt=input()

if opt=="1":#[1]List Booking Options

    print("List Bookings")

    print(t.rtrv_data('booking','booking'))

elif opt=="2":#[2]Booking for customer

    conn=sqlite3.connect('SysTA.db')

    fk_cust_id=eval(input("Enter Customer ID:"))

    fk_loc_id=eval(input("Enter Location ID:"))

    trvl_date=input("Enter Travel Date(MM-DD-YYYY):")

    paid=bool(eval(input("Customer Paid?('1'if Paid,'0'if not
Paid):")))

    booking_list=(trvl_date,paid,fk_loc_id,fk_cust_id)

    with conn:

        conn=sqlite3.connect('SysTA.db')

        c=conn.cursor()

execute("INSERT INTO booking(trvl_date,paid,fk_loc_id,fk_cust_id)\
      VALUES(?,?,?,?)",booking_list)

        conn.commit()

        conn.close()

    print("booking_id","cust_id","trvl_date","paid")

    print(booking_list)

    print(t.rtrv_data('booking','booking'))

else:

    print("404")

print("-End-")

```

---

```

[1]Location [2]Customer [3]Booking [4]Report [5]Audit
action:4
***open database success***
List Customer Bookings

Download successful
count
city
Shanghai      1
Toronto       2
Waterloo       2

```

admin\_func.py

```

def rep_out():
    t.orders_city()
    return

```

trip\_db.py

```

def orders_city():#counting how many orders in a city in a dataframe as table
    df=audit_out()
    df_city=df.groupby(['city'])['city'].count().to_frame('count')
    print(df_city)
    plot_bar=df_city.plot.bar()
    plt.show()#show bar chart as graph
    return

def audit_out():
    conn=sqlite3.connect('SysTA.db')
    c=conn.cursor()
    print("***open data base success***")

```

```

print("List Customer Bookings")

cursor=c.execute("SELECT * FROM booking\

                LEFT JOIN loc_profile ON
                loc_profile.loc_id=fk_loc_id\

                LEFT JOIN cust_profile ON\
                cust_profile.cust_id=fk_cust_id")

colnames=cursor.description

header=[]

for head in colnames:

    header.append(head[0])

print()

audit_list=cursor.fetchall()

pd.set_option('display.max_columns',None)

df=pd.DataFrame(audit_list,columns=header)

filename=datetime.now().strftime("%Y_%m_%d-%I_%M_%S_%p")

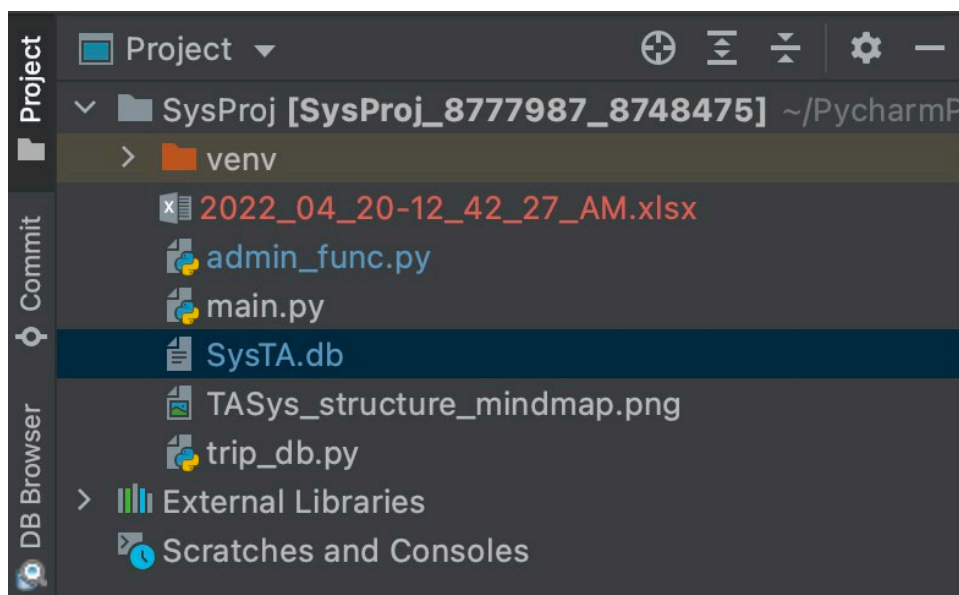
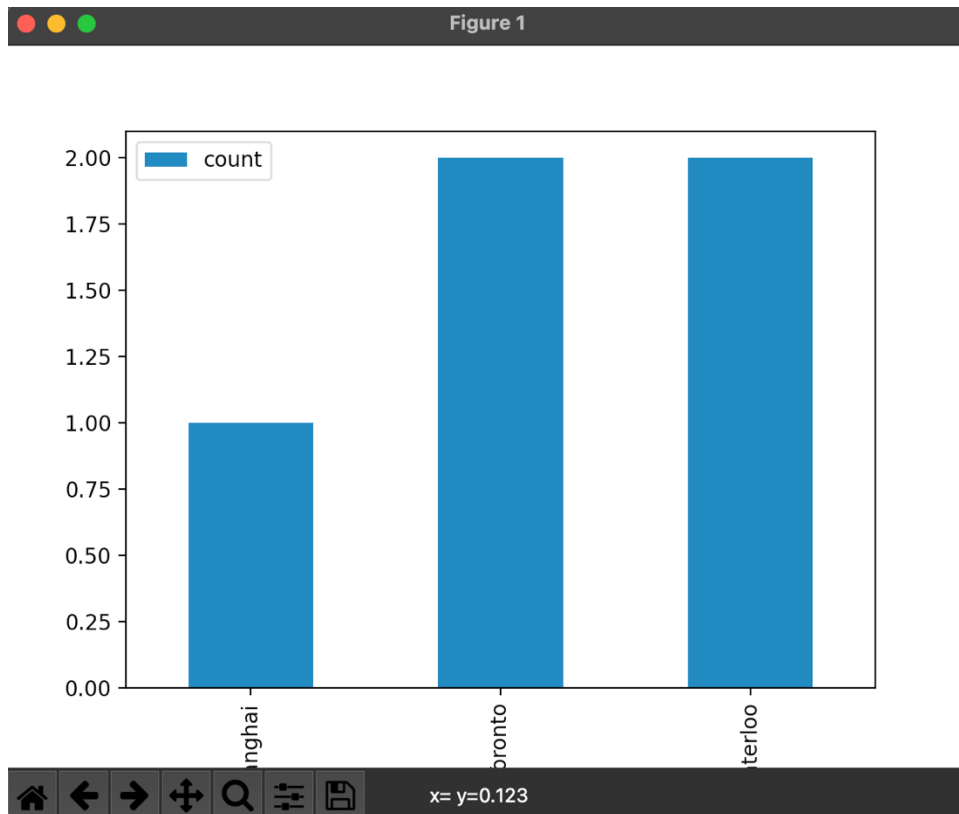
df.to_excel(f'{filename}.xlsx',header=True,index=True)

print("Download successful")

conn.close()

return df

```



ExcelReader 2022\_04\_20-12\_42\_27\_AM.xlsx

	booking_id	trvl_date	paid	fk_loc_id	fk_cust_id	loc_id	country	city	price	start_date	end_date	cust_id	cust_name	phone
0	101	04-11-20...	1	1	1	1	Canada	Waterloo	2000	04-10-2...	04-17-2...	1	Shirley	26705424
1	102	04-11-20...	1	2	2	2	Canada	Toronto	2000	04-11-20...	04-18-2...	2	Mary	26671810
2	103	05-18-2...	1	102	3							3	Chandan	12345678
3	104	05-18-2...	1	102	3							3	Chandan	12345678
4	105	05-15-2...	1	2	4	2	Canada	Toronto	2000	04-11-20...	04-18-2...	4	Chandan	12345678
5	106	19-04-2...	1	1	5	1	Canada	Waterloo	2000	04-10-2...	04-17-2...	5	SaoKuan	9876543
6	107	04-20-2...	1	4	6	4	China	Shanghai	5000	04-20-2...	04-19-2...	6	Tommy	12345678

```

[1]Location [2]Customer [3]Booking [4]Report [5]Audit
action:5
***open database success***
List Customer Bookings

Download successful

```

	booking_id	trvl_date	paid	fk_loc_id	fk_cust_id	loc_id	country	\
0	101	04-11-2022	1	1	1	1.0	Canada	
1	102	04-11-2022	1	2	2	2.0	Canada	
2	103	05-18-2022	1	102	3	NaN	None	
3	104	05-18-2022	1	102	3	NaN	None	
4	105	05-15-2022	1	2	4	2.0	Canada	
5	106	19-04-2022	1	1	5	1.0	Canada	
6	107	04-20-2022	1	4	6	4.0	China	

	city	price	start_date	end_date	cust_id	cust_name	phone
0	Waterloo	2000.0	04-10-2022	04-17-2022	1	Shirley	26705424
1	Toronto	2000.0	04-11-2022	04-18-2022	2	Mary	26671810
2	None	NaN	None	None	3	Chandan	12345678
3	None	NaN	None	None	3	Chandan	12345678
4	Toronto	2000.0	04-11-2022	04-18-2022	4	Chandan	12345678
5	Waterloo	2000.0	04-10-2022	04-17-2022	5	SaoKuan	9876543
6	Shanghai	5000.0	04-20-2022	04-19-2023	6	Tommy	12345678

```

Process finished with exit code 0

```

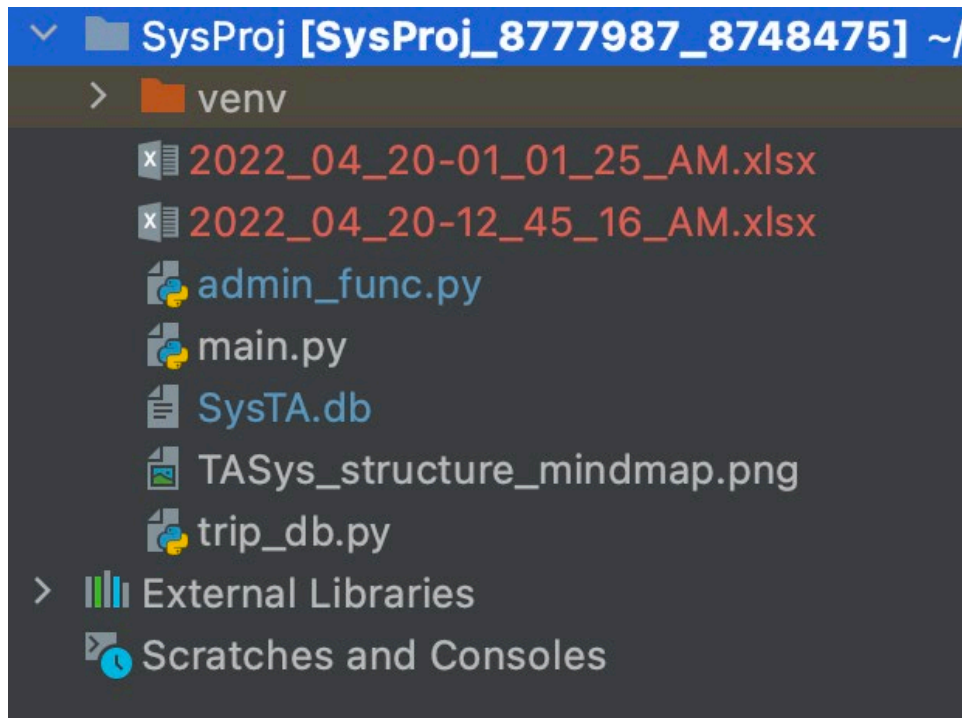
```

def audit_out():#datastorage

    print(t.audit_out())

    return

```



ExcelReader 2022_04_20-12_42_27_AM.xlsx														
0 result														
A	booking_id	trvl_date	paid	fk_loc_id	fk_cust_id	loc_id	country	city	price	start_date	end_date	cust_id	cust_name	phone
0	101	04-11-20...	1	1	1	1	Canada	Waterloo	2000	04-10-2...	04-17-2...	1	Shirley	26705424
1	102	04-11-20...	1	2	2	2	Canada	Toronto	2000	04-11-20...	04-18-2...	2	Mary	26671810
2	103	05-18-2...	1	102	3							3	Chandan	12345678
3	104	05-18-2...	1	102	3							3	Chandan	12345678
4	105	05-15-2...	1	2	4	2	Canada	Toronto	2000	04-11-20...	04-18-2...	4	Chandan	12345678
5	106	19-04-2...	1	1	5	1	Canada	Waterloo	2000	04-10-2...	04-17-2...	5	SaoKuan	9876543
6	107	04-20-2...	1	4	6	4	China	Shanghai	5000	04-20-2...	04-19-2...	6	Tommy	12345678