AN ONLINE ART GALLERY

ART FIELD

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CLASS: *XII A*

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ABU DHABI INDIAN SCHOOL, ABU DHABI

This is to certify that, Miss _____

Examination No _____ has satisfactorily completed

the project titled:-_____

_____

during the academic session 2021 – 2022 towards the partial fulfillment of All India Senior School Certificate Examination conducted by the Central Board of Secondary Education, New Delhi.

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I also thank my parents for their motivation and helpfulness.

AIM

This project uses the Python-MySQL Interface to maintain the records of an Art Gallery. The aim of the project is to provide different functions to the user, depending on whether they are an owner or a visitor.

An owner manages the records of paintings and buyers. They can:

- to display all records of paintings and buyers.
- search records based on painting code or buyer code.
- search records based on painting name or buyer name.
- search records based on artist code.
- search records based on artist name.
- add a new record.
- delete a record.
- update a record.
- find the profit of a painting.

A visitor can access information about the paintings but cannot edit anything. They can:

- display the records.
- search records based on painting name.
- search records based on artist name.
- bid on a painting.

SOFTWARE AND HARDWARE SPECIFICATIONS

Software:

- Python (Thonny) and MySQL

Hardware:

- ASUS VivoBook 14
- Device name LAPTOP-80OUA2PE
- Processor: 11th Gen Intel(R) Core(TM) i7-1165G7 @ 2.80GHz 2.80 GHz
- Installed RAM: 16.0 GB (15.7 GB usable)
- System type: 64-bit operating system, x64-based processor

HEADER FILES USED

- import mysql.connector as myconnect
- from tkinter import *
- from PIL import ImageTk,Image #PIL ->

Pillow • from tkinter import messagebox

- import random as rand
- import csv

BRIEF EXPLANATION

Our project first requests the user to identify whether they are an owner or a visitor.

Owner:

The owner is allowed to access all three tables: PAINTINGS, BUYERS and INFO. PAINTINGS and BUYERS holds all the records about the paintings and buyers that are only for the owners eyes. INFO is the table which holds the information displayed to the visitors.

Functions of the owner:

PAINTINGS:
• displaypaintings(): Displays all the records of paintings.
• searchbypcode(): Searches for records based on the predefined painting code.
• searchbypainting(): Searches for records based on the painting name.
• searchbyacode(): Searches for records based on the predefined artist code.
• searchbyartist():Searches for records based on the artist name.
• addpainting(): Adds a new record of a painting.
• deletepainting(): Deletes a record based on painting code.
• updatepainting(): Updates a record based on painting code.
• profit(): Calculates the profit made on a painting.

BUYERS:
• displaybuyers(): Displays all the records of buyers.
• searchbybcode(): Searches for records based on the predefined buyer code.
• searchbybname(): Searches for records based on the buyer name.
• searchbybpcode(): Searches for records based on the predefined painting code.

• searchbybpname():Searches for records based on the painting name.
• addbuyer(): Adds a new record of a buyer.
• deletebuyer(): Deletes a record based on buyer code.
• updatebuyer(): Updates a record based on buyer code.

INFO:
• addinfo(): Adds a new record.
• deleteinfo(): Deletes a record.
• updateinfo(): Updates a record.

Visitor:

The visitor only accesses the INFO table. They cannot edit it in any manner.

Functions of the visitor:

• displayinfo(): Displays all the records.
• searchinfobypainting(): Allows the visitor to search for a record by painting name.
• searchinfobyartist(): Allows the visitor to search for a record by artist name.
• bidding(): Allows the visitor to bid on a painting.

SOURCE CODE

```
import mysql.connector as myconnect
from tkinter import *
from PIL import ImageTk,Image #PIL -> Pillow
from tkinter import messagebox
import random as rand
import csv

#~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
#OWNER
#-------------------------------------------------------------------------------
-------
#O1. Paintings:

#P1. Display all paintings
def displaypaintings():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='artga
llery')
 mycursor=mydb.cursor()
 mycursor.execute('select * from paintings')
 myrecord=mycursor.fetchall()
 print('')
 print('-'*120)

print('%10s'%'PCODE','%30s'%'PIECE','%20s'%'ARTIST','%15s'%'ACODE','%10s'%'PRICE','%10
s'%'MAXVAL','%10s'%'STATUS')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5],'%10s'%x[6]
)
print(' ')
 except:
 print(' ')
```

```
#P2. Search by painting code
def searchbypcode():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='artga
llery')
 mycursor=mydb.cursor()
 req_code =int(input("Enter the painting code:"))
 query ="select * from paintings where pcode = {} ".format(req_code)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
 print('')
 print('-'*120)

print('%10s'%'PCODE','%30s'%'PIECE','%20s'%'ARTIST','%15s'%'ACODE','%10s'%'PRICE','
%10s'%'MAXVAL','%10s'%'STATUS')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5],'%10s'%
x[6])
 print(' ')
 print("Search successful.")
 print(' ')
 except Exception as e:
 print(' ')
 print("Record not found.", e)
 print(' ')

#P3. Search by painting name
def searchbypainting():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='artga
llery')
 mycursor=mydb.cursor()
 req_name=input("Enter the name of the painting:")
```

```
query ="select * from paintings where piece = '{}' ".format(req_name)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
 print('-'*120)

print('%10s'%'PCODE','%30s'%'PIECE','%20s'%'ARTIST','%15s'%'ACODE','%10s'%'PRIC
E','%10s'%'MAXVAL','%10s'%'STATUS')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5],'%10
s'%x[6])
 print(' ')
 print("Search successful.")
 print(' ')
 except Exception as e:
 print(' ')
 print('Record is not found', e)
 print(' ')

#P4. Search by artist code
def searchbyacode():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='ar
tgallery')
 mycursor=mydb.cursor()
 req_code =int(input("Enter the artist code :"))
 query ="select * from paintings where acode = {} ".format(req_code)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
print('')
 print('-'*120)

print('%10s'%'PCODE','%30s'%'PIECE','%20s'%'ARTIST','%15s'%'ACODE','%10s'%'PRIC
E','%10s'%'MAXVAL','%10s'%'STATUS')
 print('-'*120)
```

```
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5],'%10
s'%x[6])
 print(' ')
 print("Search successful.")
 print(' ')
 except Exception as e:
 print(' ')
 print('Record is not found',e)
 print(' ')

#P5. Search by artist name
def searchbyartist():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='ar
tgallery')
 mycursor=mydb.cursor()
 req_name=input("Enter the name of the artist:")
 query ="select * from paintings where artist = '{}'".format(req_name)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
 print('-'*120)

print('%10s'%'PCODE','%30s'%'PIECE','%20s'%'ARTIST','%15s'%'ACODE','%10s'%'PRIC
E','%10s'%'MAXVAL','%10s'%'STATUS')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5],'%10
s'%x[6])
 print(' ')
 print("Search successful.")
 print(' ')
 except Exception as e:
 print(' ')
```

```
 print('Record is not found', e)
print(' ')

#P6. Add a new painting
def addpainting():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='ar
tgallery')
 mycursor=mydb.cursor()
 n=int(input('How many records would you like to add?: '))
 for i in range(n):
 print('-'*40)
 print('Enter the details for record',str(i+1))
 print('-'*40)
 pcode=int(input('Enter the painting code:'))
 query="select * from paintings where pcode = " + str(pcode)
 mycursor.execute(query)
 myrecord = mycursor.fetchall()
 if mycursor.rowcount>0:
 print('__'*50)
 print("Sorry, record already exists.")
 print('__'*50)
 continue
 else:
 piece=input('Enter the name of the painting:')
 artist=input('Enter the name of the artist:')
 acode=int(input('Enter the artist code:'))
 price=int(input('Enter the price of the painting:'))
 maxval=int(input('Enter the maximum price of the painting:'))
 status=input('Enter the status of the painting (SOLD/AVAILABLE):')
 q2="INSERT INTO PAINTINGS VALUES({},'{}','{}',{},{},
{},'{}')".format(pcode,piece,artist,acode,price,maxval,status)
 mycursor.execute(q2)
 mydb.commit()
 with open('masterpaintings.csv', 'a') as CSVfile:
 CSVobj= csv.writer(CSVfile, delimiter=',')
```

```
 line= [pcode,piece,artist,acode,price,maxval,status]
 CSVobj.writerow(line)
 print(' ')
 print('Record was added')
 print(' ')
 except Exception as e:
 print(' ')
 print('Record was not added',e)
 print(' ')

#P7. Delete a painting
def deletepainting():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='ar
tgallery')
 mycursor=mydb.cursor()
 req_code =int(input("Enter the painting code to be deleted:"))
 query="select * from paintings where pcode = " + str(req_code)
 mycursor.execute(query)
 myrecord = mycursor.fetchall()
if mycursor.rowcount<=0:
 print('__'*50)
 print("Sorry, no such record exists.")
 print('__'*50)
 else:
 print('-'*120)

print('%10s'%'PCODE','%30s'%'PIECE','%20s'%'ARTIST','%15s'%'ACODE','%10s'%'PRIC
E','%10s'%'MAXVAL','%10s'%'STATUS')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5],'%10
s'%x[6])
 print(' ')
 sure = input("Are you sure you want to delete this record
```

```
 if sure=="y" or sure=="Y":
 query=" Delete from paintings where pcode = {} ".format(req_code)
 mycursor.execute(query)
 mydb.commit()
 print(' ')
 print("Record was deleted.")
 print(' ')
 else:
 print(' ')
 print("Record was not deleted.")
 print(' ')
 except Exception as e:
 print(e)

#P8. Update the details of a painting
def updatepainting():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='ar
tgallery')
 mycursor=mydb.cursor()
 req_code =int(input("Enter the painting code: "))
 query="select * from paintings where pcode = " + str(req_code)
 mycursor.execute(query)
 myrecord = mycursor.fetchall()
 if mycursor.rowcount<=0:
 print('__'*50)
 print("Sorry, no such record exists.")
 print('__'*50)
 else:
 print('Enter 1 to change the name of the painting.')
 print('Enter 2 to change the name of the artist.')
 print('Enter 3 to change the artist code.')
 print('Enter 4 to change the price of the painting.')
 print('Enter 5 to change the maximum price of the painting.')
 print('Enter 6 to change the status of the painting.')
 update=input('Please enter your choice: (1/2/3/4/5/6)')
```

```
 if update=='1':
 piece=input('Enter the new name of the painting:')
 query="update PAINTINGS set PIECE='{}' where PCODE={}".format(name,
req_code)
 elif update=='2':
 artist=input('Enter the new name of the artist:')
 query="update PAINTINGS set ARTIST='{}' where PCODE={}".format(artist,
req_code)
 elif update=='3':
 acode=int(input('Enter the new artist code:'))
 query="update PAINTINGS set ACODE='{}' where PCODE={}".format(acode,
req_code)
 elif update=='4':
 price=int(input('Enter the new price of the painting:'))
 query="update PAINTINGS set PRICE='{}' where PCODE={}".format(price,
req_code)
 elif update=='5':
 maxval=int(input('Enter the new maximum price of the painting:'))
 query="update PAINTINGS set MAXVAL='{}' where PCODE={}".format(maxval,
req_code)
 elif update=='6':
 status=input('Enter the new status of the painting (SOLD/AVAILABLE):')
 query="update PAINTINGS set STATUS='{}' where PCODE={}".format(status,
req_code)
 mycursor.execute(query)
 mydb.commit()
 print(' ')
 print('Record updated.')
 print(' ')
 except Exception as e:
 print(e)

#P9. Finding the profit
def profit():
 try:
```

```
mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='art
gallery')
 mycursor=mydb.cursor()
 req_code =int(input("Enter the painting code: "))
 query="select * from paintings where pcode = " + str(req_code)
 mycursor.execute(query)
 myrecord = mycursor.fetchall()
 for x in myrecord:
 if x[0]==req_code:
 if x[6]=='SOLD':
 profit= int(x[5])- int(x[4])
 print('The profit we made on this painting was:', profit)
 else:
 print('This painting has not been sold yet')
 except Exception as e:
 print('Sorry, no such record exists.')
 print(e)

#-----------------------------------------------------------------------------------------
#O2. Buyers

#B1. Display all buyers
def displaybuyers():
 import mysql.connector

mydb=mysql.connector.connect(host="localhost",user="root",passwd="vrushali",data
base="artgallery")
 mycursor=mydb.cursor()
 try:
 mycursor.execute("select * from BUYERS")
 myrecords=mycursor.fetchall()
 print('-'*130)

print('%10s'%'BCODE','%30s'%'NAME','%20s'%'PIECE','%15s'%'PCODE','%10s'%'PRICE
','%10s'%'DATE','%10s'%'PHONENO','%10s'%'ACCNO')
 print('-'*130)
```

```
 for row in myrecords:
 print('%10s' %
row[0],'%30s'%row[1],'%20s'%row[2],'%15s'%row[3],'%10s'%row[4],'%10s'%row[5],'
%10s'%row[6],'%10s'%row[7])
 except:
 print("Sorry, unable to display")

#B2. Search by buyer code
def searchbybcode():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 req_code =int(input("Enter the buyer code:"))
 query ="select * from buyers where bcode = {} ".format(req_code)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
 print('')
 print('-'*120)

print('%10s'%'BCODE','%30s'%'NAME','%20s'%'PIECE','%15s'%'PCODE','%10s'%'PRIC
E','%10s'%'DATE')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5])
 print(' ')
 print("Search successful.")
 print(' ')
 except Exception as e:
 print(' ')
 print("Record not found.", e)
 print(' ')

#B3. Search by buyer name
def searchbybname():
```

```
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 req_name=input("Enter the name of the buyer:")
 query ="select * from buyers where name = '{}' ".format(req_name)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
 print('-'*120)

print('%10s'%'BCODE','%30s'%'NAME','%20s'%'PIECE','%15s'%'PCODE','%10s'%'PRIC
E','%10s'%'DATE')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5])
 print(' ')
 print("Search successful.")
 print(' ')
 except Exception as e:
 print(' ')
 print('Record is not found', e)
 print(' ')

#B4. Search by painting code
def searchbybpcode():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 req_code =int(input("Enter the painting code :"))
 query ="select * from buyers where pcode = {} ".format(req_code)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
print('')
```

```
 print('-'*120)

print('%10s'%'BCODE','%30s'%'NAME','%20s'%'PIECE','%15s'%'PCODE','%10s'%'PRIC
E','%10s'%'DATE')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5])
 print(' ')
 print("Search successful.")
 print(' ')
 except Exception as e:
 print(' ')
 print('Record is not found',e)
 print(' ')

#B5. Search by painting name
def searchbybpname():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 req_name=input("Enter the name of the painting:")
 query ="select * from buyers where piece = '{}'".format(req_name)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
 print('-'*120)

print('%10s'%'BCODE','%30s'%'NAME','%20s'%'PIECE','%15s'%'PCODE','%10s'%'PRIC
E','%10s'%'DATE')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5])
 print(' ')
 print("Search successful.")
```

```
 print(' ')
 except Exception as e:
 print(' ')
 print('Record is not found', e)
 print(' ')

#B6. Add a new buyer
def addbuyer():
 import mysql.connector
 mydb= mysql.connector.connect(host="localhost", user="root", passwd="vrushali",
database="artgallery")
 mycursor=mydb.cursor()
 myrecord = mycursor.fetchall()
 n= int(input('Enter the number of records you wish to add:'))
 try:
 for i in range(n):
 print('Enter the details for record',str(i+1))
 print('-'*40)
 bcode=int(input('Enter the buyer code:'))
 query="select * from buyers where bcode = " + str(bcode)
 mycursor.execute(query)
 myrecord = mycursor.fetchall()
 if mycursor.rowcount>0:
 print('__'*50)
 print("Sorry, record already exists.")
 print('__'*50)
 continue
 else:
 bcode=int(input('Enter the buyer code:'))
 name= input('Enter the name of the buyer:')
 piece= input('Enter the name of the painting:')
 pcode= int(input('Enter the painting code:'))
 price= int(input('Enter the price of the painting:'))
 date= input('Enter the date on which the piece was bought (YYYY-MM-DD
format ONLY):')
 q2= "INSERT INTO BUYERS values({}, '{}', '{}', {}, {}, '{}')".format(bcode, name,
piece, pcode, price, date)
```

```
 #mycursor.execute(q1)
 mycursor.execute(q2)
 with open('masterbuyers.csv', 'a') as CSVfile:
 CSVobj= csv.writer(CSVfile, delimiter=',')
 line= [bcode, name, piece, pcode, price, date]
 CSVobj.writerow(line)
 mydb.commit()
 print(' ')
 print('Record was added')
 print(' ')
 except:
 print(' ')
 print('Record was not added.')
 print(' ')

#B7. Delete a buyer
def deletebuyer():
 import mysql.connector
 from mysql.connector import Error

mydb=mysql.connector.connect(host="localhost",user="root",passwd="vrushali",dat
abase="artgallery")
 mycursor=mydb.cursor()
 try:
 reqno=int(input("Enter the buyer code to be deleted: "))
 query="select * from BUYERS where bcode="+str(reqno)
 mycursor.execute(query)
 myrecords=mycursor.fetchall()
 if mycursor.rowcount<=0:
 print('__'*50)
 print("Sorry, no such record exists.")
 print('__'*50)
 else:
 print('-'*120)

print('%10s'%'BCODE','%30s'%'NAME','%20s'%'PIECE','%15s'%'PCODE','%10s'%'PRIC
E','%10s'%'DATE')
 print('-'*120)
```

```
 #mycursor.execute(q1)
 mycursor.execute(q2)
 with open('masterbuyers.csv', 'a') as CSVfile:
 CSVobj= csv.writer(CSVfile, delimiter=',')
 line= [bcode, name, piece, pcode, price, date]
 CSVobj.writerow(line)
 mydb.commit()
 print(' ')
 print('Record was added')
 print(' ')
 except:
 print(' ')
 print('Record was not added.')
 print(' ')

#B7. Delete a buyer
def deletebuyer():
 import mysql.connector
 from mysql.connector import Error

mydb=mysql.connector.connect(host="localhost",user="root",passwd="vrushali",dat
abase="artgallery")
 mycursor=mydb.cursor()
 try:
 reqno=int(input("Enter the buyer code to be deleted: "))
 query="select * from BUYERS where bcode="+str(reqno)
 mycursor.execute(query)
 myrecords=mycursor.fetchall()
 if mycursor.rowcount<=0:
 print('__'*50)
 print("Sorry, no such record exists.")
 print('__'*50)
 else:
 print('-'*120)

print('%10s'%'BCODE','%30s'%'NAME','%20s'%'PIECE','%15s'%'PCODE','%10s'%'PRIC
E','%10s'%'DATE')
```

```
 print('-'*120)
 for row in myrecords:
 print('%10s' %
row[0],'%30s'%row[1],'%20s'%row[2],'%15s'%row[3],'%10s'%row[4],'%10s'%row[5])
sure=input("Are you sure you want to delete? (Y/N):")
 if sure=="y" or sure=="Y":
 query="Delete from BUYERS where bcode={}".format(reqno)
 mycursor.execute(query)
 mydb.commit()
 print(' ')
 print("Record was deleted.")
 print(' ')
 else:
 print(' ')
 print("Record was not deleted.")
 print(' ')
 except Error as e:
 print(e)

#B8. Update the details of a buyer
def updatebuyer():
 import mysql.connector
 from mysql.connector import Error

mydb=mysql.connector.connect(host="localhost",user="root",passwd="vrushali",dat
abase="artgallery")
 mycursor=mydb.cursor()
 try:
 reqno =input("Enter the buyer code:")
 query="select * from buyers where BCODE="+str(reqno)
 mycursor.execute(query)
 myrecord = mycursor.fetchall()
 if mycursor.rowcount<=0:
 print('__'*50)
 print("Sorry, no such record exists.")
 print('__'*50)
```

```
 else:
 print('Enter 1 to change the name of the buyer.')
 print('Enter 2 to change the name of the painting.')
 print('Enter 3 to change the painting code.')
 print('Enter 4 to change the price of the painting.')
 print('Enter 5 to change the date.')
 update=input('Please enter your choice: (1/2/3/4/5/6)')
 if update=='1':
 name= input('Enter the new name of the buyer:')
 query="update BUYERS set NAME='{}' where BCODE={}".format(name, reqno)
 elif update=='2':
 piece= input('Enter the new name of the painting:')
 query="update BUYERS set PIECE='{}' where BCODE={}".format(piece, reqno)
 elif update=='3':
 pcode= int(input('Enter the new painting code:'))
 query="update BUYERS set PCODE={} where BCODE={}".format(pcode, reqno)
 elif update=='4':
 price=int(input('Enter the new price of the painting:'))
 query="update BUYERS set PRICE={} where BCODE={}".format(price, reqno)
 elif update=='5':
 date= input('Enter the new date on which the piece was bought (YYYY-MM-DD
format ONLY):')
 query="update BUYERS set DATE='{}' where BCODE={}".format(date, reqno)
 #query="update BUYERS set NAME='"+name+"',PIECE="+str(piece) + "
where rno="+str(reqno)
 mycursor.execute(query)
 mydb.commit()
 print("Record updated")
 except Error as e:
 print(e)


#-----------------------------------------------------------------------------------------------
```

```
#O3. Info

#I1. Add info
def addinfo():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 n=int(input('How many records would you like to add?: '))
 for i in range(n):
 print('-'*40)
 print('Enter the details for record',str(i+1))
 print('-'*40)
 pcode=int(input('Enter the painting code:'))
 piece=input('Enter the name of the painting:')
 artist=input('Enter the name of the artist:')
 acode=int(input('Enter the artist code:'))
 year=int(input('Enter the year of the painting:'))
 price=int(input('Enter the price of the painting:'))
 status=input('Enter the status of the painting (SOLD/AVAILABLE):')
 q2="INSERT INTO INFO VALUES({},'{}','{}',{},{},
{},'{}')".format(pcode,piece,artist,acode,year,price,status)
 mycursor.execute(q2)
 mydb.commit()
 print(' ')
 print('Record was added')
 print(' ')
 except Exception as e:
 print(' ')
 print('Record was not added',e)
 print(' ')

#I2. Delete info
def deleteinfo():
 try:
```

```
mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 req_code =int(input("Enter the painting code to be deleted:"))
 query="select * from info where pcode = " + str(req_code)
 mycursor.execute(query)
 myrecord = mycursor.fetchall()
if mycursor.rowcount<=0:
 print('__'*50)
 print("Sorry, no such record exists.")
 print('__'*50)
 else:
 print('-'*120)

print('%10s'%'PCODE','%30s'%'PIECE','%20s'%'ARTIST','%15s'%'ACODE','%10s'%'PRI
CE','%10s'%'MAXVAL','%10s'%'STATUS')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5],'%1
0s'%x[6])
 print(' ')
 sure = input("Are you sure you want to delete this record? (Y/N) : ")
 if sure=="y" or sure=="Y":
 query=" Delete from info where pcode = {} ".format(req_code)
 mycursor.execute(query)
 mydb.commit()
 print(' ')
 print("Record was deleted.")
 print(' ')
 else:
 print(' ')
 print("Record was not deleted.")
 print(' ')
 except Exception as e:
 print(e)
```

```
#I3. Update info
def updateinfo():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 req_code =int(input("Enter the painting code: "))
 query="select * from info where pcode = " + str(req_code)
 mycursor.execute(query)
 myrecord = mycursor.fetchall()
 if mycursor.rowcount<=0:
 print('__'*50)
 print("Sorry, no such record exists.")
 print('__'*50)
 else:
 print('Enter 1 to change the name of the painting.')
 print('Enter 2 to change the name of the artist.')
 print('Enter 3 to change the artist code.')
 print('Enter 4 to change the year of the painting.')
 print('Enter 5 to change the price of the painting.')
 print('Enter 6 to change the status of the painting.')
 update=input('Please enter your choice: (1/2/3/4/5/6)')
 if update=='1':
 piece=input('Enter the new name of the painting:')
 query="update INFO set PIECE='{}' where PCODE={}".format(name, req_code)
 elif update=='2':
 artist=input('Enter the new name of the artist:')
 query="update INFO set ARTIST='{}' where PCODE={}".format(artist, req_code)
 elif update=='3':
 acode=int(input('Enter the new artist code:'))
 query="update INFO set ACODE='{}' where PCODE={}".format(acode, req_code)
 elif update=='4':
```

```
 year=int(input('Enter the new year of the painting:'))
 query="update INFO set MAXVAL='{}' where PCODE={}".format(maxval,
req_code)
 elif update=='5':
 price=int(input('Enter the new price of the painting:'))
 query="update INFO set PRICE='{}' where PCODE={}".format(price, req_code)
elif update=='6':
 status=input('Enter the new status of the painting (SOLD/AVAILABLE):')
 query="update INFO set STATUS='{}' where PCODE={}".format(status,
req_code)
 mycursor.execute(query)
 mydb.commit()
 print(' ')
 print('Record updated.')
 print(' ')
 except Exception as e:
 print(e)
#-------------------------------------------------------------------------------------------

import mysql.connector as myconnect

#~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

#VISITOR

#V1. Display all paintings
def displayinfo():
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 mycursor.execute('select * from info')
 myrecord=mycursor.fetchall()
 print('')
 print('-'*120)
```

```
print('%10s'%'PCODE','%30s'%'PIECE','%20s'%'ARTIST','%15s'%'ACODE','%10s'%'YEAR','%10s'%'PRICE','%10s'%'STATUS')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5],'%10s'%x[6])
 print(' ')
 except:
 print(' ')

#V2. Search by painting name
def searchinfobypainting():
 list1=['morning sun', 'the son of man', 'the scream', 'years of glory', 'the power of letter', 'lilacs in a window', 'my dress hangs there', 'me and my doll', 'convergence']
 list2=['SUN.jpeg', 'MAN.jpg', 'SCREAM.jpg', 'GLORY.jpg', 'POWER.jpg', 'LILACS.jpg', 'DRESS.jpg', 'DOLL.jpg', 'CON.jpg']
try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='artgallery')
 mycursor=mydb.cursor()
 req_name=input("Enter the name of the painting:")
 query ="select * from info where piece = '{}' ".format(req_name)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
 print('-'*120)

print('%10s'%'PCODE','%17s'%'PIECE','%20s'%'ARTIST','%15s'%'ACODE','%10s'%'YEAR','%10s'%'PRICE','%10s'%'STATUS')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%20s'%x[1],'%20s'%x[2],'%9s'%x[3],'%11s'%x[4],'%10s'%x[5],'%13s'%x[6])
```

```
 print("Search successful")
 if req_name.lower() in list1:
 index= list1.index(req_name.lower())
picture= list2[index]
 from PIL import Image
 img = Image.open(picture)
 img.show()
except Exception as e:
 print('Record is not found',e)

#V3. Search by artist name
def searchinfobyartist():
 list1=['edward hopper', 'rene magritte', 'edvard munch', 'abdul qader al rais', 'mary
cassatt', 'frida kahlo', 'jackson pollock']
 list2=['EDW.jpg', 'REN.jpg', 'EDV.jpg','ABD.jpg', 'MAR.jpg', 'FRI.jpg', 'JAC.jpg']
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 req_name=input("Enter the name of the artist:")
 query ="select * from info where artist = '{}'".format(req_name)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
 print('-'*120)

print('%10s'%'PCODE','%30s'%'PIECE','%20s'%'ARTIST','%15s'%'ACODE','%10s'%'YEA
R','%10s'%'PRICE','%10s'%'STATUS')
 print('-'*120)
 for x in myrecord:

print('%10s'%x[0],'%30s'%x[1],'%20s'%x[2],'%15s'%x[3],'%10s'%x[4],'%10s'%x[5],'%1
0s'%x[6])
 print("Search successful")
 if req_name.lower() in list1:
 index= list1.index(req_name.lower())
 picture= list2[index]
```

```
 from PIL import Image
 img = Image.open(picture)
 img.show()
except Exception as e:
 print('Record is not found',e)


#V4. Bid for a painting
def bidding():
 import random as rand
 choice='Y'
 while choice=='Y' or choice=='y':
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 req_name=input("Enter the painting name you wish to bid for:")
 query ="select * from paintings where PIECE = '{}' ".format(req_name)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
 status= myrecord[0][6]
 price=myrecord[0][4]
 maxval= myrecord[0][5]

if status=='SOLD':
 print(' ')
 print('Sorry, this painting is sold. You cannot bid for it.')
 print(' ')
 else:
 print('The starting bid is:', price)
 print(' ')
 bid1= rand.randint(price, maxval)
 bid2= rand.randint(price, maxval)
 bid3= rand.randint(price, maxval)
 bid= int(input('Enter your bid:'))
 print(' ')
```

```
 from PIL import Image
 img = Image.open(picture)
 img.show()
except Exception as e:
 print('Record is not found',e)


#V4. Bid for a painting
def bidding():
 import random as rand
 choice='Y'
 while choice=='Y' or choice=='y':
 try:

mydb=myconnect.connect(host='localhost',user='root',passwd='vrushali',database='a
rtgallery')
 mycursor=mydb.cursor()
 req_name=input("Enter the painting name you wish to bid for:")
 query ="select * from paintings where PIECE = '{}' ".format(req_name)
 mycursor.execute(query)
 myrecord=mycursor.fetchall()
 status= myrecord[0][6]
 price=myrecord[0][4]
 maxval= myrecord[0][5]

if status=='SOLD':
 print(' ')
 print('Sorry, this painting is sold. You cannot bid for it.')
 print(' ')
 else:
 print('The starting bid is:', price)
 print(' ')
 bid1= rand.randint(price, maxval)
 bid2= rand.randint(price, maxval)
 bid3= rand.randint(price, maxval)
 bid= int(input('Enter your bid:'))
 print(' ')
```

```
 bidlist=[bid1, bid2, bid3, bid]
 print('The bids are:')
 print(' ')
 print('Bidder 1:', bid1)
 print('Bidder 2:',bid2)
 print('Bidder 3:',bid3)
 print('Your bid:', bid)
 print(' ')

if bid==max(bidlist):
 print('Congrats! You win.')
 print(' ')
 query1 ="update PAINTINGS set STATUS='SOLD' WHERE PIECE = '{}'
".format(req_name)
 query2 ="update INFO set STATUS='SOLD' WHERE PIECE = '{}'
".format(req_name)
 mycursor.execute(query1)
 mycursor.execute(query2)
 query3="select count(*) from BUYERS"
 mycursor.execute(query3)
 bcod=mycursor.fetchone()
 bcode=int(bcod[0])+101
 name=input('Enter your name:')
 phone=int(input('Enter your phone no.:'))
 accno=int(input('Enter your bank account no.:'))
 query4="select PCODE from paintings where PIECE='{}' ".format(req_name)
 mycursor.execute(query4)
 pcode= mycursor.fetchone()
 query="insert into BUYERS (BCODE, NAME, PIECE, PCODE, PRICE, PHONENO,
ACCNO) values({},'{}','{}',{}, {}, {}, {})".format(bcode, name, req_name, pcode[0], bid,
phone, accno)
 mycursor.execute(query)
 query5='update BUYERS set DATE=curdate() where BCODE={}'.format(bcode)
mycursor.execute(query5)
 query6 ="select * from BUYERS where BCODE={} ".format(bcode)
```

```
 mycursor.execute(query6)
 myrecord=mycursor.fetchall()
 for x in myrecord:
 date=x[5]
 with open('masterbuyers.csv', 'a') as CSVfile:
 CSVobj= csv.writer(CSVfile, delimiter=',')
 line= [bcode, name, req_name, pcode, price, date]
 CSVobj.writerow(line)
 mydb.commit()
 if bid>maxval:
 charity= bid-maxval
 print('Since your bid exceeds our maximum value, the remaining money
goes to our favorite charity Red Crescent which helps the needy in UAE')
 print('You have donated', charity, 'dirhams!')
 print('Thank you!')
 print(' ')
 else:
 print("Sorry. You didn't win.")
 print(' ')
 choice= input('Would you like to try again? (Y/N)')
 except Exception as e:
 print('Record is not found',e)

#~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

#MENUS

from tkinter import *
from tkinter import messagebox

def Ok():
 try:
 uname = e1.get()
 password = e2.get()
 if(uname == "" and password == "") :
 messagebox.showinfo("", "Blank Not allowed")
```

```
elif(uname in ["mehreenart", "anbarart", "vrushaliart"] and password == "artfi3ld"):
 messagebox.showinfo("","Login Success")
 #root.destroy()
 omenu()
 else :
 messagebox.showinfo("","Incorrect Username and Password")
 except Exception as e:
 print(e)

def password():
 root = Tk()
 root.title("Login")
 root.geometry("300x200")
 global e1
 global e2
 Label(root, text="Username").place(x=10, y=10)
 Label(root, text="Password").place(x=10, y=40)
 e1 = Entry(root)
 e1.place(x=140, y=10)
 e2 = Entry(root)
 e2.place(x=140, y=40)
 e2.config(show="*")
 Button(root, text="Login", command=Ok ,height = 3, width = 13).place(x=10, y=100)
root.mainloop()

def omenu():
 ch='Y'
 while ch=='Y' or ch=='y':
 print(' ')
 print('Enter P to manage records of paintings.')
print('Enter B to manage records of buyers.')
 print('Enter I to manage records of info.')
 print(' ')
 answer= input('Enter your choice (P/B/I):')
 print(' ')
```

```
 if answer=='p' or answer=='P':
 print('Enter 1 to display all records.')
 print('Enter 2 to search records based on painting code.')
 print('Enter 3 to search records based on painting name.')
 print('Enter 4 to search records based on artist code.')
 print('Enter 5 to search records based on artist name.')
 print('Enter 6 to add a new record.')
 print('Enter 7 to delete a record.')
 print('Enter 8 to update a record.')
 print('Enter 9 to find the profit of a painting.')
 print(' ')
 service=int(input('Enter your choice (1/2/3/4/5/6/7/8/9):'))
if service==1:
 displaypaintings()
 print(' ')
 elif service==2:
 searchbypcode()
 print(' ')
 elif service==3:
 searchbypainting()
 print(' ')
 elif service==4:
 searchbyacode()
 print(' ')
 elif service==5:
 searchbyartist()
 print(' ')
 elif service==6:
 addpainting()
 print(' ')
 elif service==7:
 deletepainting()
 print(' ')
 elif service==8:
 updatepainting()
 print(' ')
 elif service==9:
```

```
profit()
 print(' ')
 elif answer=='b' or answer=='B':
 print('Enter 1 to display all records')
 print('Enter 2 to search records based on buyer code')
 print('Enter 3 to search records based on buyer name')
 print('Enter 4 to search records based on painting code')
 print('Enter 5 to search records based on painting name')
print('Enter 6 to add a new record.')
 print('Enter 7 to delete a record.')
 print('Enter 8 to update a record.')
 print(' ')
 service=int(input('Enter your choice (1/2/3/4/5/6/7/8):'))
 if service==1:
 displaybuyers()
 print(' ')
 elif service==2:
 searchbybcode()
 elif service==3:
 searchbybname()
 elif service==4:
 searchbybpcode()
 elif service==5:
 searchbybpname()
 elif service==6:
 addbuyer()
 print(' ')
 elif service==7:
 deletebuyer()
 print(' ')
 elif service==8:
 updatebuyer()
 print(' ')
 elif answer=='I' or answer=='i':
```

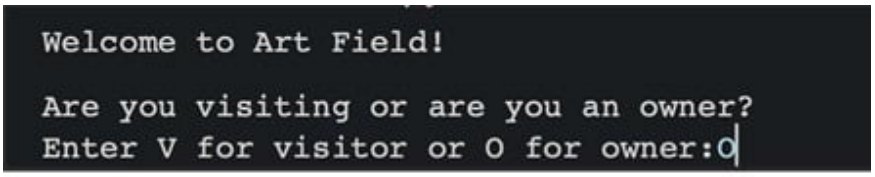
```
print('PLEASE CONFIRM WITH OTHER OWNERS BEFORE CHANGING THIS TABLE.')
print('Enter 1 to add a new record.')
 print('Enter 2 to delete a record.')
 print('Enter 3 to update a record.')
 service=int(input('Enter your choice (1/2/3):'))
 if service==1:
 addinfo()
 print(' ')
 elif service==2:
 deleteinfo()
 print(' ')
 elif service==3:
 updateinfo()
 print(' ')
 ch=input('Would you like to use another service? (Y/N):')
 print('Thank you for visiting Art Field!')

def vmenu():
 ch='Y'
 while ch=='Y' or ch=='y':
 print(' ')
 print('Enter 1 to display the records.')
 print('Enter 2 to search records based on painting name.')
 print('Enter 3 to search records based on artist name.')
 print('Enter 4 to bid on a painting.')
 print(' ')
 service=int(input('Enter your choice (1/2/3/4):'))
 if service==1:
 displayinfo()
 print(' ')
 elif service==2:
 searchinfobypainting()
 print(' ')
```

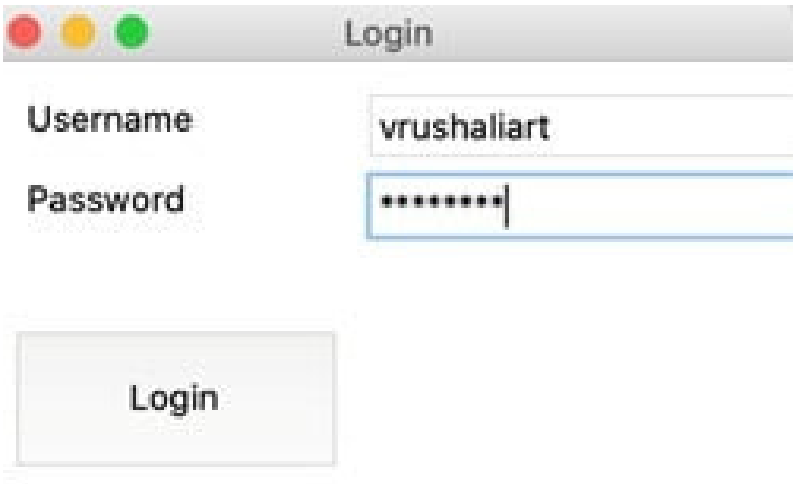
```
elif service==3:
 searchinfobyartist()
 print(' ')
 elif service==4:
 bidding()
 print(' ')
 ch=input('Would you like to use another service? (Y/N):')
 print('Thank you for visiting Art Field!')
 print(' ')

#~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
~~~~~~~~~~~~~~~~~~~~~~~~~~
#MAIN CODE

def maincode():
 print('Welcome to Art Field!')
 print(' ')
 print('Are you visiting or are you an owner?')
 ans= input('Enter V for visitor or O for owner:')
 print(' ')
 if ans=='O' or ans=='o':
 password()
 elif ans=='V' or ans=='v':
 print('Welcome to Art Field!')
 vmenu()
maincode()
```

SAMPLE OUTPUT

Owner

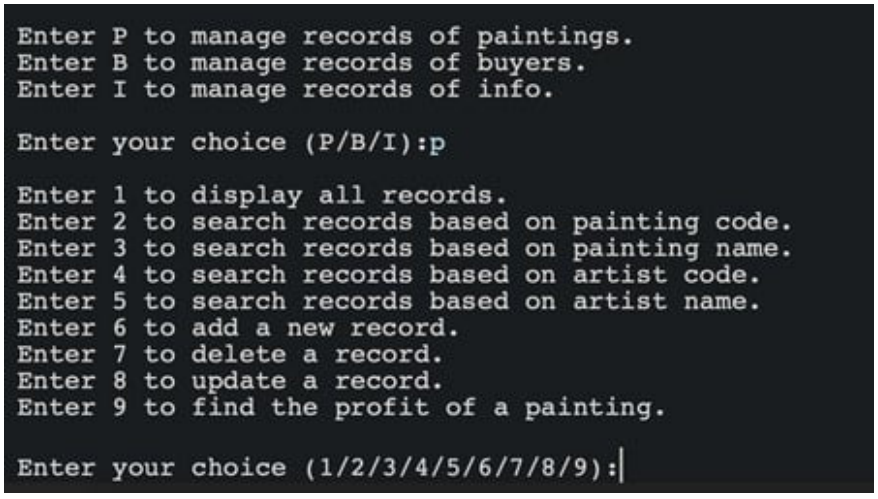
Logging in and menu:





If the user enters O, they are required to input a valid username and password, and only then access is granted.

Menu:



All the available options are displayed to the owner, and they can choose the service they wish to use using the corresponding number.

Displaying all records:

PCODE	PIECE	ARTIST	ACODE	PRICE	MAXVAL	STATUS
1314	Morning Sun	Edward Hopper	389	78902	100000	AVAILABLE
1355	The Son of Man	Rene Magritte	833	100702	200000	AVAILABLE
5690	The Scream	Edvard Munch	878	453627	10000000	AVAILABLE
6711	Years of Glory	Abdul Qader Al Rais	619	98896	100000	AVAILABLE
6712	The Power of Letter	Abdul Qader Al Rais	619	89896	100000	AVAILABLE
7171	Lilacs in a Window	Mary Cassatt	432	99436	200000	SOLD
8830	My Dress Hangs There	Frida Kahlo	808	999702	2000000	AVAILABLE
8831	Me and My Doll	Frida Kahlo	808	999581	2000000	AVAILABLE
9871	Convergence	Jackson Pollock	711	87702	100000	SOLD

This is an example of displaying all records from the PAINTINGS table. A similar output with appropriate records is displayed for the BUYERS table.

Searching by code:

```
r code:101

BCODE  NAME                    PIECE                PCODE  PRICE  DATE
101    Elsa Lambda The School of Athens  1476  49345 2015-12-02

h successful.
```

This is an example of searching for records from the BUYERS table by buyer code. A similar output with appropriate records is displayed for the PAINTINGS table.

Searching by name:

```
Enter the name of the artist:Frida Kahlo

PCODE  PIECE                ARTIST       ACODE  PRICE   MAXVAL   STATUS
8830   My Dress Hangs There  Frida Kahlo  808    999702  2000000  AVAILABLE
8831   Me and My Doll        Frida Kahlo  808    999581  2000000  AVAILABLE

Search successful.
```

This is an example of searching for records from the PAINTINGS table by artist name. A similar output with appropriate records is displayed for the BUYERS table.

Adding records:

```
How many records would you like to add?: 1
---------------------------------------
Enter the details for record 1
---------------------------------------
Enter the painting code:1000
Enter the name of the painting:Sample Painting
Enter the name of the artist:Sample Artist
Enter the artist code:2000
Enter the price of the painting:900000
Enter the maximum price of the painting:12000000
Enter the status of the painting (SOLD/AVAILABLE):AVAILABLE

Record was added
```

This is an example of adding a record to the PAINTINGS table. A similar output with appropriate records is displayed for the BUYERS table.

Deleting records:

```
Enter your choice (1/2/3/4/5/6/7/8/9):7
Enter the painting code to be deleted:1000
-------------------------------------------------------------------------------------------------------------
     PCODE                          PIECE              ARTIST          ACODE      PRICE      MAXVAL     STATUS
-------------------------------------------------------------------------------------------------------------
      1000            New Sample Paintng          New Artist           2000      34567      45678  AVAILABLE

Are you sure you want to delete this record? (Y/N) : y

Record was deleted.
```

This is an example of deleting a record from the PAINTINGS table. A similar output with appropriate records is displayed for the BUYERS table.

Updating records:

```
Enter your choice (1/2/3/4/5/6/7/8):8
Enter the buyer code:106
Enter 1 to change the name of the buyer.
Enter 2 to change the name of the painting.
Enter 3 to change the painting code.
Enter 4 to change the price of the painting.
Enter 5 to change the date.
Please enter your choice: (1/2/3/4/5/6)1
Enter the new name of the buyer:S. Buyer
Record updated
```

This is an example of updating a record in the BUYERS table. A similar output with appropriate records is displayed for the PAINTINGS table.

Calculating Profit:

```
Enter your choice (1/2/3/4/5/6/7/8/9):9
Enter the painting code: 8831
This painting has not been sold yet
```

This is an example of calculating the profit of a record in the PAINTINGS table. If the painting is not sold, an appropriate message is displayed.

Visitor

Logging in and menu:

```
Welcome to Art Field!

Are you visiting or are you an owner?
Enter V for visitor or O for owner:v

Welcome to Art Field!

Enter 1 to display the records.
Enter 2 to search records based on painting name.
Enter 3 to search records based on artist name.
Enter 4 to bid on a painting.

Enter your choice (1/2/3/4):
```

If the user enters V, they are not required to input any username or password to be granted access.

Displaying all records:

```
Enter your choice (1/2/3/4):1
```

PCODE	PIECE	ARTIST	ACODE	YEAR	PRICE	STATUS
1314	Morning Sun	Edward Hopper	389	1952	78902	AVAILABLE
1355	The Son of Man	Rene Magritte	833	1964	100702	AVAILABLE
5690	The Scream	Edvard Munch	327	1893	910702	SOLD
6711	Starry Night	Vincent Van Gogh	515	2016	98802	AVAILABLE
6712	The Power of Letter	Abdul Qader Al Rais	619	2019	89896	AVAILABLE
7171	Lilacs in a Window	Mary Cassatt	432	1879	99436	SOLD
8830	My Dress Hangs There	Frida Kahlo	808	1933	999702	AVAILABLE
8831	Me and My Doll	Frida Kahlo	808	1937	999581	AVAILABLE
9871	Convergence	Jackson Pollock	711	1952	87702	SOLD

This is an example of displaying all records from the INFO table.

This is an example of displaying all records from the INFO table.

Searching by name:

```
Enter your choice (1/2/3/4):2
Enter the name of the painting:The Scream
-------------------------------------------------------------------------------------------------------------
    PCODE          PIECE              ARTIST          ACODE      YEAR      PRICE      STATUS
-------------------------------------------------------------------------------------------------------------
     5690       The Scream         Edvard Munch       327        1893     910702        SOLD
Search successful
```

This is an example of searching for records from the INFO table by painting name. A picture of the painting is also displayed to the visitor, which opens on their laptop's image viewer.

Bidding on a painting:

```
Enter your choice (1/2/3/4):4
Enter the painting name you wish to bid for:Convergence

Sorry, this painting is sold. You cannot bid for it.

Would you like to try again? (Y/N)y
Enter the painting name you wish to bid for:Sample Painting
The starting bid is: 90000

Enter your bid:23947210

The bids are:

Bidder 1: 591017
Bidder 2: 858756
Bidder 3: 464289
Your bid: 23947210

Congrats! You win.

Enter your name:Sample Buyer
Enter your phone no.:1234567
Enter your bank account no.:23456
Since your bid exceeds our maximum value, the remaining money goes to our favorite charity Red Crescent which helps the needy
in UAE
You have donated 22747210 dirhams!
Thank you!

Would you like to try again? (Y/N)n
```

This is an example of bidding on a painting. If the painting is already sold, an appropriate message is displayed. If the bid is greater than the paintings unique maximum value, the extra money is donated to charity.

CONCLUSION:

Our project effectively forms a connection between MySQL and Python and manages an online art gallery. Although we faced a few hurdles along the way, we were able to overcome them by research and guidance from our teacher. This project also allowed us the opportunity to practically apply our learning in an integrated manner, as well as utilize GUIs.
The project carries out successfully.

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