Set 1

1.Create program to accept a list of members of committee as a stack

Define the following methods as described

AddMem(Mem): To push a string element to the stack

RemoveMem(Mem): Remove the element from the stack .

Note:

Display new list in either condition (i.e., push/pop). Appropriate message to be displayed when user tries to pop element from the empty list.

```
P = list(eval(input('Enter the list of Members'))) #enter values in the
format: ['value','value']
def AddMem(Mem):
    NewMem = input("Enter Name to append: ")
    Mem.append(NewMem)
    print("New Member Appended : ", Mem)
def RemoveMem(Mem):
    if (Mem==[]):
        print ("Underflow")
    else:
        print ("\nDeleted element: ", Mem.pop())
        print("New Customer: ", Mem)
ch = 'y'
while ch =='y' :
    print("Menu : ")
    print(" To insert data enter 1")
    print(" To delete data enter 2 ")
    print(" To exit enter any number")
    c = int(input("Enter your choice: "))
    if c == 1:
        AddMem(P)
    elif c == 2:
        RemoveMem(P)
    else:
        print("Thank you")
    ch = input('do u want to proceed to main menu(y/n)')
```

2.Stub Program:

Python program to connect with MySQL and read first 3 records from the table called sal which is in the database called Employee.

```
import mysql.connector as SM
cnx = SM.connect(host="localhost", user="root", password="123456",
database="Employee")
Cur = cnx.cursor()
Qu = "select * from sal"
Cur.execute(Qu)
out = Cur.fetchmany(3)
for i in out:
    print(i)
```

Set 2

1.Create a program to accept Name, ID, Age and State N times and store it in into a CSV file with field names and print all the records.

```
import csv
field = ['Name','ID','Age']
Rec=[]
NRec = int(input("Enter number of records to store: "))
with open('Samp.csv', 'w+',newline='') as Myfile:
    obj = csv.writer(Myfile)
    obj.writerow(field)
    for i in range (NRec):
        N = input("Enter Name: ")
        I_D = int(input("Enter the ID: "))
        Age = int(input("Enter Age: "))
        Rec.append(N)
        Rec.append(I_D)
        Rec.append(Age)
        obj.writerow(Rec)
        Rec=[]
Myfile.close()
```

```
with open('Samp.csv','r') as Myfile:
    csvReader = csv.reader(Myfile)
    for row in csvReader:
        print(row)
```

2.Stub Program:

Create a program to display all the records of table stock from library database and update the price of the book by accepting ISBN.

```
import mysql.connector as sql
cnx = sql.connect(user='root', password='123456',
host='localhost',database='Library')
Cursor= cnx.cursor()
Cursor.execute("Select * from Stock")
Read=Cursor.fetchall()
print('ISBN\t', 'Price')
for i in Read:
    print(i[0],'\t',i[5])
ISBNo = input("Enter ISBN to modify: ")
Rate = input("Enter new rate : ")
data = (Rate, ISBNo)
query=("UPDATE Stock SET Price=%s where ISBN=%s")
Cursor.execute(query,data)
cnx.commit()
Cursor.close()
cnx.close()
print("Price updated successfully")
```

Set 3

1.Program to get the details of Product continuously and store it by removing all old records in file Product.dat. Print all the records and average price of all the records

```
import pickle
ProDet= {}
PD = open ('Product.dat', 'wb')
More = 'y'
count = 0
while More=='y':
    Pro = input("Enter the Name of Product : ")
    PCode = input("Enter the code : ")
    Pri = int(input ("Enter price : "))
    ProDet['ProName'] = Pro
    ProDet['ProCode'] = PCode
    ProDet['Price'] = Pri
    count+=1
    pickle.dump(ProDet, PD)
    PD.flush()
    More = input("Would you like to continue? (y/n): ")
    if More=='n':
        print("you have updated ", count, " record(s)")
        break;
Sum=0
file = open ("Product.dat", 'rb')
try:
    while True:
        LPro = pickle.load(file)
        print (LPro)
        count = count+1
        Sum+=LPro['Price']
except EOFError:
    file.close()
print('Average price : ', Sum/count)
PD.close()
```

2.Stub Program:

Create program to insert 5 records in MySQL database table student which is in ‘School’ database. Following are the attributes of the table.

Attributes Datatype
SName - varchar (25)
SID - int (5)
Class - int(2)
Section - char(1)
DOBirth - date

```
import mysql.connector
cnx = mysql.connector.connect(user='root',
password='123456',host='localhost',database='School')
Cursor= cnx.cursor()
for i in range (1):
    Name = input("Enter Name : ")
    ID = int(input("Enter the ID : "))
    Cls = int(input("Enter Class Studying: "))
    Sec = input("Enter Class Section: ")
    DOB = input("Enter Date (yyyy-mm-dd): ")
    query= "insert into Student
values('{}',{},{},'{}','{}')".format(Name,ID,Cls,Sec,DOB)
    Cursor.execute(query)
cnx.commit()
Cursor.close()
cnx.close()
print("Record Inserted")
```

Set 4

1. (a) Write a python program to check if the given string is palindrome or not.
(b) Write a python program to read a text file and display the number of vowels, consonants, uppercase and lowercase characters.

(a)

```
s = input('enter string for checking for palindrome condition')
if s == s[::-1]:
    print('yes it is a palindrome')
else:
    print('no it is not a palindrome')
```

(b)

```
txt = open('test.txt', "r")
vowel = 0
con = 0
u=0
l=0
r = txt.readlines()
vowels_list = ['a', 'e', 'i', 'o', 'u','A', 'E', 'I', 'O', 'U']
for alpha in r:
    for j in alpha:
        if j in vowels_list:
            vowel += 1
        elif j not in vowels_list:
            con+=1
        if j.isupper():
            u+=1
        elif j.islower():
            l+=1
print("Number of vowels:",vowel,'Number of consonants:',con,'number of
upper case letters:',u,'number of lower case letter:',l)
```

2.Stub Program:

Python program to connect with MySQL and read first 3 records from the table called sal which is in the database called Employee.

```
import mysql.connector as SM
cnx = SM.connect(host="localhost", user="root", password="123456",
database="Employee")
Cur = cnx.cursor()
Qu = "select * from sal"
```

```
Cur.execute(Qu)
out = Cur.fetchmany(3)
for i in out:
    print(i)
```

Set 5

(a) Write a python program to generate random number using random module
(b) Write a Python program to read a text file and display the lines starting with ‘T’.

(a)

```
import random
print(random.randint(int(input('enter lower limit ')),int(input('enter upper limit '))))
```

(b)

```
f = open('test.txt','r')
for i in f.readlines():
    for j in i:
        if j == 'T':
            print(i)
```

Set 6

1. Create a binary file with roll number, name and marks. Input a roll number and update the marks

```
import pickle
sroll = int(input('enter roll number '))
sname=input('enter name ')
marks=int(input('enter marks'))
```

```
with open ('student.dat','ab') as Myfile:
    srecord={"SROLL":sroll,"SNAME":sname,'MARKS':marks}
    pickle.dump(srecord,Myfile)
Myfile.close()
f = open('student.dat','rb+')
try:
    while True:
        if srecord['SROLL']==int(input('enter roll number to update')):
            srecord['marks']=eval(input('enter new marks'))
            pickle.dump(srecord,f)
except EOFError:
    print('record not found')
```

2.Stub Program

Fill in the blanks with the correct statement (host=main_rajwadi, username=rajwadi_admin, password=Rajwadi@2023, database=rajwadi)
Take data from user and insert into customer table.

import mysql.connector as mycon
cn=mycon.connect(_____)#statement1
cr=cn._____ # Statement 2
cust_id=int(input("Enter ID:"))
cust_name=input("Enter Customer Name:")
city=input("Enter City:")
ba=float(input("Enter Bill Amount:"))
mno=input("Enter Mobile No.:")
cr.execute(_____)#statement3
cn._____ # Statement 4

STATEMENT 1

```
mycon.connect(host='main_rajwadi', username='rajwadi_admin',
password='Rajwadi@2023', database='rajwadi')
```

STATEMENT 2

```
cursor
```

STATEMENT 3

```
'insert into customer values
({},'{}','{}',{},{}).format(cust_id,cust_name,city,ba,mno)'
```

STATEMENT 4

```
commit()
```

Set 7

1. Program to create CSV file and store empno,name,salary and search any empno and display name,salary and if not found appropriate message.

```
import csv
fh=open('Samp.csv','w',newline='')
obj=csv.writer(fh,delimiter=',')
n=int(input("Enter the no.of employees:"))
for i in range(n):
    e_no=int(input("Enter the employee number:"))
    e_name=input("Enter the employee name:")
    e_salary=int(input("Enter the salary:"))
    obj.writerow([e_no,e_name,e_salary])
fh.close()
fh=open('Samp.csv','r')
obj=csv.reader(fh,delimiter=',')
e=int(input("enter the employee number to be searched:"))
for i in obj:
    if int(i[0])==e:
        print("Record found")
        print("Name:",i[1])
        print("Salary",i[2])
        break
    else:
        print("Record not found")
        break
fh.close()
```

2. Stub Program:

Write a python stub program to interface with MySQL to create table “STUDENT” and using user-defined database like ‘CBSE101

Table : STUDENT

No	Name	Dept	Admn	Age	Fee	Gender
1	Rakesh	Computer	2000-02-20	23	4000	M
2	Jeni	History	1998-01-10	22	2500	M
3	Asha	Tamil	1996-12-12	20	2000	F
4	Zulu	Computer	2000-09-05	19	4500	M
5	Mala	History	1998-02-02	25	3000	F
6	Maria	Tamil	2000-07-03	22	3075	F

Create the table student with the following attributes

Field	Type
No	Integer
Name	Char(20)
Dept	Char(10)
Admn	Date
Age	Integer
Fee	Integer
Gender	Char(2)

```
import mysql.connector as mcr
cn=mcr.connect(host='localhost',user='root',password='admin')
cr=cn._____ #Statment-1
qry=’_____’ #Statment-2
cr.execute(qry)
print('Database created...')
qry=’_____’ #Statment-3
cr.execute(qry)
qry='_____' #Statment-4
cr.execute(qry)
cn.commit()
cn.close()
```

STATEMENT 1

```
cursor
```

STATEMENT 2

```
create database CBSE101
```

STATEMENT 3

```
Use CBSE101
```

STATEMENT 4

```
create table STUDENT(No int,Name char(20),Dept char(10),Admn Date,Age
int,Fee int,Gender char(2))
```

Set 8

1. a) Write a python program to copy a text file except for those lines starts with “a”
(b) Write a python program to search a word “my” in the text file “MyIndia.txt” and so the appropriate message.

(a)

```
for i in open('test.txt','r').readlines():
    if i[0]!='a':
        r=open('test2.txt','a')
        r.writelines(i)
```

(b)

```
for i in open('MyIndia.txt','r'):
    if 'my' in i:
        print(' the word my was found in line:',i)
```

2. Stub Program

Write a python stub program to interface with MySQL to create table “DOCTOR” with the given attributes and also use user-defined database like ‘CBSE101’.
(Assume : Tables are already created)

ID	NAME	DEPT	SEX	EXPERIENCE
101	John	ENT	M	12
104	Smith	ORTHO	M	5
107	George	CARDIO	M	10
114	Lara	SKIN	F	3
109	K George	MEDICINE	F	9
105	Johnson	ORTHO	M	10
117	Lucy	ENT	F	3
111	Bill	MEDICINE	F	12
130	Morphy	ORTHO	M	15

```
import mysql.connector as SqlCon
cn=___(a)___.connect(host='localhost',user='root',password='ad
min') #statement1
cr=cn.cursor()
qry=___(b)___#statement2
cr.execute(qry)
print('Database created...')
qry='USE cbse101'
cr.execute(qry)
qry=____(c)_____#statement3
cr.execute(qry)
qry=___(d)___#statement4
cr.execute(qry)
cn.commit()
cn.close()
```

Write the correct statements for the following

a) What is the object name of mysql connector?

b) How to create a database for the above tables?

c) How to insert a record in the table DOCTOR?
d) To display id, name and department where the department is ‘ENT’ and Sex as ‘F’

STATEMENT 1

```
SqlCon
```

STATEMENT 2

```
'create database CBSE101;'
```

STATEMENT 3

```
‘insert into DOCTOR values(101,'John','ENT','M',12);’
```

STATEMENT 4

```
'select id,name,dept from DOCTOR where dept = 'ENT';'
```

Set 9

Write a menu driven python program to perform the following operation on a stack data structure using list.

Push
Pop
Display

```
host=[ ]
ch='y'
def push(host):
    hn=input("enter name ")
    host.append(hn)
def pop(host):
    if(host==[]):
        print("Stack Underflow")
```

```
    else:
        print("Deleted Record is :",host.pop())
def display(host):
    for i in range(0,len(host)):
        print(host[i])
while(ch=='y' or ch=='Y'):
    print("1. Add Record\n")
    print("2. Delete Record\n")
    print("3. Display Record\n")
    print("4. Exit")
    op=int(input("Enter the Choice "))
    if op==1:
        push(host)
    elif op==2:
        pop(host)
    elif op==3:
        display(host)
    elif op==4:
        break
    ch=input("Do you want to return to menu(y/n) ")
```

2. Stub Program:

Fill in the blanks with the correct statements to insert name of 'N' employees and to display all the records from the table emp:

```
Import_____#Statement 1
con=sqltor.connect(host='localhost',user='root',password='admin')
cursor=_____ # Statement 2
_____#Statement 3
Data=_____ #statement 4
for row in data:
        print(row)
print()
con.close()
```

STATEMENT 1

```
mysql.connector as sqltor
```

STATEMENT 2

```
con.cursor
```

STATEMENT 3

```
qry='select * from emo where marks>50;'
```

STATEMENT 4

```
cursor.execute(qry)
```

—-END