

Practical SAMPLE Question Paper

Subject: Computer Science(083)

Class 12

Time: 3:00 Hours

Max. Marks: 30

SET-1

Q-1 a) Write a menu driven program to perform following operations into a binary file shoes .dat 8

1. Add record
2. Display records
3. Search record
4. Exit

The structure of file content is: [s_id, name, brand, type, price]

OR

Q-1 a) Write a program to add students details in CSV file students.csv as mentioned in below table format , and print them with tab delimiter. Ignore first row header to print in tabular form.

Field 1	Data Type
StudentID	Integer
StudentName	String
Score	Integer

b) Observe the following code and fill in the given blanks as directed: 4

```
import mysql.connector as mycon
mydb=mycon.connect(_____) # Statement 1
mycursor=mydb._____ # Statemen 2
mycursor.execute(_____) # Statement 3
mydb._____ # Statement 4
print(mycursor.rowcount, "record inserted.")
```

The partial code is given for inserting a record in customer table created . The customer table is given as following:

CustomerID	CustomerName	City	BillAmt	MobileNo
111	Abhishek	Ahmedabad	1500	9999999999

i. Write the parameters and values required to fill statement 1. The parameters values are as follows:

Database Server	User	Pasword	Database
localhost	Root	Sql123	customers

ii. Write function name to create cursor and fill in the gap for statement 2.

iii. Write a query to fill statement 3 with desired values.

iv. Write function to fill statement 4 to save the records into table.

Q – 2 Practical Report File 7

Q – 3 Project 8

Q – 4 Viva Voce 3

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SET-2

Q-1 a) Write a program to write data into binary file marks.dat and display the records of students who scored more than 95 marks. 8

OR

a) Write a program to create a Stack called Employee, to perform the basic operations on Stack using list. The list contains the two values – employee number and employee name. The program should include the options for addition, deletion and display of employee details.

b) Observe the following code and fill in the given blanks as directed: 4

```
import mysql.connector as mycon
mydb=mycon.connect(_____) # Statement 1
mycursor=mydb._____ # Statemen 2
mycursor.execute(_____) # Statement 3
myresult = mycursor._____ # Statement 4
for x in myresult:
    print(x)
```

The partial code is given for displaying all records from customer table created . The customer table is given as following:

CustomerID	CustomerName	City	BillAmt	MobileNo
111	Abhishek	Ahmedabad	1500	9999999999
222	Ram kumar	Chennai	1501	8888888888

i. Write the parameters and values required to fill statement 1. The parameters values are as follows:

Database Server	User	Pasword	Database
localhost	Root	Sql123	customer

ii. Write function name to create cursor and fill in the gap for statement 2.

iii. Write a query to fill statement 3 to display all records from customer table.

iv. Write function to fill statement 4 to fetch all records from customer table.

Q – 2 Practical Report File 7

Q – 3 Project 8

Q – 4 Viva Voce 3

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SET-3

Q-1 a) Write a program to count a total number of lines and count the total number of lines starting with 'A', 'B', and 'C' from the file myfile.txt.

Example:

File Contents as given below

Python is super and trending language.

Allows to store the output in the files.

A text file stores textual data.

Binary files can handle binary data.

Binary files use pickle module to store data.

CSV files can handle tabular data.

CSV files can be read easily using CSV reader object.

Program output must be as follows

Total Number of lines are: 7

Total Number of lines starting with A are: 2

Total Number of lines starting with B are: 2

Total Number of lines starting with C are: 2

OR

b) Observe the following code and fill in the given blanks as directed:

4

```
import mysql.connector as mycon
mydb=mycon.connect(_____) # Statement 1
mycursor=mydb._____ # Statemen 2
mycursor.execute(_____) # Statement 3
row = mycursor._____ # Statement 4
print(row)
```

The partial code is given for displaying one record from customer table created . The customer table is given as following:

CustomerID	CustomerName	City	BillAmt	MobileNo
111	Abhishek	Ahmedabad	1500	9999999999
222	Ram kumar	Chennai	1501	8888888888

i. Write the parameters and values required to fill statement 1. The parameters values are as follows:

Database Server	User	Pasword	Database
localhost	root	Sql123	customer

ii. Write function name to create cursor and fill in the gap for statement 2.

iii. Write a query to fill statement 3 to display all records from customer table.

iv. Write function to fill statement 4 to fetch one record from customer table.

Q – 2 Practical Report File

7

Q – 3 Project

8

Q – 4 Viva Voce

3

Answer Key Set-I

Aim:

To Write a menu driven program to perform following operations into a binary file shoes.dat

1. Add record
2. Display records
3. Search record
4. Exit

Program:

```
import pickle
while True:
    print("""
        1. Add Record
        2. Display Record
        3. Search Record
        4. Exit
    """)
    ch=int(input("Enter your choice:"))
    l=[]
    if ch==1:
        f=open("shoes.dat","ab")
        s_id=int(input("Enter Shoes ID:"))
        name=input("Enter shoes name:")
        brand=input("Enter Brand:")
        typ=input("Enter Type:")
        price=float(input("Enter Price:"))
        l=[s_id,name,brand,typ,price]
        pickle.dump(l,f)
        print("Record Added Successfully.")
        f.close()
    elif ch==2:
        f=open("shoes.dat","rb")
        while True:
            try:
                dt=pickle.load(f)
                print(dt)
            except EOFError:
                break
        f.close()
    elif ch==3:
        si=int(input("Enter shoes ID:"))
        f=open("shoes.dat","rb")
        fl=False
        while True:
            try:
```

```
dt=pickle.load(f)
for i in dt:
    if i==si:
        fl=True
        print("Record Found...")
        print("ID:",dt[0])
        print("Name:",dt[1])
        print("Brand:",dt[2])
        print("Type:",dt[3])
        print("Price:",dt[4])
    except EOFError:
        break
if fl==False:
    print("Record not found...")
f.close()
elif ch==4:
    break
else:
    print("Invalid Choice")
```

Output:

1. Add Record
2. Display Record
3. Search Record
4. Exit

Enter your choice:1
Enter Shoes ID:1
Enter shoes name:Power
Enter Brand:Bata
Enter Type:Sports
Enter Price:2000
Record Added Successfully.

1. Add Record
2. Display Record
3. Search Record
4. Exit

Enter your choice:1
Enter Shoes ID:2
Enter shoes name:Sport
Enter Brand:Nike
Enter Type:Sports
Enter Price:5000
Record Added Successfully.

1. Add Record
2. Display Record
3. Search Record
4. Exit

Enter your choice:2

```
[1, 'Power', 'Bata', 'Sports', 2000.0]
[2, 'Sport', 'Nike', 'Sports', 5000.0]
```

1. Add Record
2. Display Record
3. Search Record
4. Exit

Enter your choice:3

Enter shoes ID:2

Record Found...

ID: 2

Name: Sport

Brand: Nike

Type: Sports

Price: 5000.0

1. Add Record
2. Display Record
3. Search Record
4. Exit

Enter your choice:

OR

Aim:

To write a program to add students details in CSV file students.csv as mentioned in below table format , and print them with tab delimiter. Ignore first row header to print in tabular form.

Program:""

```
from csv import writer,reader
def addrecord():
    #Create Header First
    f = open("result.csv","w",newline='\n')
    dt = writer(f)
    dt.writerow(['Student_ID','StudentName','Score'])
    f.close()
    #Insert Data
    f = open("result.csv","a",newline='\n')
    while True:
        st_id= int(input("Enter Student ID:"))
        st_name = input("Enter Student name:")
        st_score = input("Enter score:")
        dt = writer(f)
        dt.writerow([st_id,st_name,st_score])
        ch=input("Want to insert More records?(y or Y):")
        ch=ch.lower()
        if ch !='y':
            break
    print("Record has been added.")
    f.close()

def viewrecord():
    f = open("result.csv","r")
    dt = reader(f,delimiter=',')
```

```
data = list(dt)
f.close()
for i in data:
    for j in i:
        print(j, "\t", end=" ")
    print()
addrecord()
viewrecord()
```

Answer:

```
import mysql.connector as mycon
mydb=mycon.connect(host="localhost", user="root", password="sql123", database="customers")# Statement 1
mycursor=mydb.cursor() # Statemen 2
mycursor.execute("insert into customer values(111,'Abhishek','Ahmedabad',1500,9999999999)") # Statement 3
mydb.commit() # Statement 4
print(mycursor.rowcount, "record inserted.")
```

Answer Key Set II

Aim:

To write a program to write data into binary file marks.dat and display the records of students who scored more than 95 marks.

Program:

```
import pickle
def search_95plus():
    f = open("marks.dat", "ab")
    while True:
        rn=int(input("Enter the rollno:"))
        sname=input("Enter the name:")
        marks=int(input("Enter the marks:"))
        rec=[]
        data=[rn,sname,marks]
        rec.append(data)
        pickle.dump(rec,f)
        ch=input("Want more records?Yes:")
        if ch.lower() not in 'yes':
            break
    f.close()
    f = open("marks.dat", "rb")
    cnt=0
    try:
        while True:
            data = pickle.load(f)
            for s in data:
                if s[2]>95:
                    cnt+=1
                    print("Record:",cnt)
                    print("RollNO:",s[0])
                    print("Name:",s[1])
                    print("Marks:",s[2])
            except Exception:
                f.close()
    search_95plus()
```

Output:

```
Enter the rollno:1
Enter the name:Kumar
Enter the marks:80
Want more records?Yes:yes
Enter the rollno:2
Enter the name:Ram
Enter the marks:90
Want more records?Yes:yes
Enter the rollno:3
Enter the name:Ravi
Enter the marks:95
Want more records?Yes:yes
Enter the rollno:4
Enter the name:Sathish
Enter the marks:97
Want more records?Yes:no
```


Record: 1
RollNO: 4
Name: Sathish
Marks: 97

OR

#Program to add, delete and display the records of an employee using list.

```
Employee=[]
c="y"
while (c=='y'):
    print ("1. Push")
    print ("2. POP")
    print ("3. Display")
    ch=int(input("Enter Employee no. : "))
    if (ch==1):
        e_id=input("Enter Employee no : ")
        ename=input("Enter Employee Name : ")
        emp=(e_id, ename)
        Employee.append(emp)
    elif (ch==2):
        if (Employee==[]):
            print("Stack Empty")
        else:
            e_id, ename= Employee.pop()
            print("Deleted element is : ", e_id,ename)
    elif(ch==3):
        i=len(Employee)
        while i>0:
            print(Employee[i-1])
            i=i-1
    else:
        print("Wrong Input ")
    c=input("Do you want to continue or not ? (Y/N ")
```

OUTPUT

```
--
1. Push
2. POP
3. Display
Enter your choice : 1
Enter Employee no : 111
Enter Employee Name : vaibhav
Do you want to continue or not ? (Y/N y
1. Push
2. POP
3. Display
Enter your choice : 2
Deleted element is : 111 vaibhav
Do you want to continue or not ? (Y/N y
1. Push
2. POP
3. Display
Enter your choice : 1
Enter Employee no : 222
Enter Employee Name : Mayank
Do you want to continue or not ? (Y/N y
1. Push
2. POP
3. Display
Enter your choice : 3
('222', 'Mayank')
Do you want to continue or not ? (Y/N
```

Answer:

```
import mysql.connector as mycon
mydb=mycon.connect(host="localhost", user="root", password="sql123", database="customer")# Statement 1
mycursor=mydb.cursor() # Statemen 2
mycursor.execute("select * from customers") # Statement 3
myresult = mycursor.fetchall() # Statement 4
for x in myresult:
    print(x)
```

Answer Key Set-III

Aim:

To write a program to count a total number of lines and count the total number of lines starting with 'A', 'B', and 'C' from the file myfile.txt.

Program:

```
def lines():  
    with open(r"F:\SKVV 2022-2023\Class Materials\class 12_Lessons\PRACTICAL 2022-23\SKV 2022-23\Myfile.txt","r") as f1:  
        data=f1.readlines()  
        cnt_lines=0  
        cnt_A=0  
        cnt_B=0  
        cnt_C=0  
        for lines in data:  
            cnt_lines+=1  
            if lines[0]=='A':  
                cnt_A+=1  
            if lines[0]=='B':  
                cnt_B+=1  
            if lines[0]=='C':  
                cnt_C+=1  
        print("Total Number of lines are:",cnt_lines)  
        print("Total Number of lines strating with A are:",cnt_A)  
        print("Total Number of lines strating with B are:",cnt_B)  
        print("Total Number of lines strating with C are:",cnt_C)  
    lines()
```

Output:

Total Number of lines are: 7
Total Number of lines starting with A are: 2
Total Number of lines starting with B are: 2
Total Number of lines starting with C are: 2

Answer:

```
import mysql.connector as mycon  
mydb=mycon.connect(host="localhost", user="root", password="sql123", database="customer")# Statement  
1  
mycursor=mydb.cursor() # Statemen 2  
mycursor.execute("select * from customers") # Statement 3  
row = mycursor.fetchone() # Statement 4  
print(row)
```