

# Python Scripts with Database

## Ex1:

```
import sqlite3

con=sqlite3.Connection('hrdb')

cur=con.cursor()

cur.execute("create table emp(id number primary key, ename varchar(20),esal number)")

cur.execute("insert into emp values(101,'KB Meena',50000)")

a=[(102,'Ratnesh',70000),(103, 'Ajay Kr',75000),(104,'Prateek',72000)]

cur.executemany("insert into emp values(?,?,?)",a)

cur.execute('select * from emp')

cur.fetchall()
```

[(101, u'KB Meena', 50000), (102, u'Ratnesh', 70000), (103, u'Ajay Kr', 75000), (104, u'Prateek', 72000)]

## Ex2:

```
cur.execute('select ename from emp where esal > 72000')

cur.fetchall()

[(u'Ajay Kr',)]

cur.execute('select ename from emp where esal >= 72000')

cur.fetchall()

[(u'Ajay Kr',), (u'Prateek',)]
```

## Ex3:

```
cur.execute('select ename from emp where esal between 70000 and 74000')

cur.fetchall()

[(u'Ratnesh',), (u'Prateek',)]

cur.execute("delete from emp where esal==70000")

cur.execute('select * from emp')

cur.fetchall()

[(101, u'KB Meena', 50000), (103, u'Ajay Kr', 75000), (104, u'Prateek', 72000)]
```

#### Ex4:

```
cur.execute("update emp set ename='Kunj' where esal < 70000")

cur.execute('select * from emp')

cur.fetchall()

[(101, u'Kunj', 50000), (103, u'Ajay Kr', 75000), (104, u'Prateek', 72000)]

cur.execute('select count(*) from emp')

cur.fetchall()

[(3,)]

cur.execute('SELECT * FROM emp WHERE ID IN (SELECT ID FROM emp WHERE esal > 70000)')

cur.fetchall()

[(103, u'Ajay Kr', 75000), (104, u'Prateek', 72000)]
```

#### Ex5:

```
cur.execute('create table emp1(id number,post varchar(20),dept varchar(20))')

cur.execute('create table emp2(id number,vehical varchar(20),house varchar(20))')

cur.execute("insert into emp1 values(101,'Lecturer','CSE')")

cur.execute("insert into emp1 values(102,'Sr Lecturer','CSE')")

cur.execute("insert into emp2 values(101,'Swift','ATS-2E65')")

cur.execute("insert into emp2 values(102,'Swift Dezire','ATS-2C25')")

cur.execute("select ename, post from emp cross join emp1 where emp.id=101")

cur.fetchall()

[(u'Kunj', u'Lecturer'), (u'Kunj', u'Sr Lecturer')]
```

### Ex6:

```
cur.execute("select ename, post, vehical from emp cross join emp1, emp2 where emp.id=101")

cur.fetchall()

[(u'Kunj', u'Lecturer', u'Swift'), (u'Kunj', u'Lecturer', u'Swift Deziere'), (u'Kunj', u'Sr Lecturer', u'Swift'),
(u'Kunj', u'Sr Lecturer', u'Swift Deziere')]

cur.execute("select ename, post, vehical, house from emp cross join emp1, emp2 where
emp.id=101")

cur.fetchall()

[(u'Kunj', u'Lecturer', u'Swift', u'ATS-2E65'), (u'Kunj', u'Lecturer', u'Swift Deziere', u'ATS-2C25'),
(u'Kunj', u'Sr Lecturer', u'Swift', u'ATS-2E65'), (u'Kunj', u'Sr Lecturer', u'Swift Deziere', u'ATS-2C25')]

cur.execute("select emp.id, ename, post, vehical, house from emp cross join emp1, emp2 where
emp.id=101")

cur.fetchall()

[(101, u'Kunj', u'Lecturer', u'Swift', u'ATS-2E65'), (101, u'Kunj', u'Lecturer', u'Swift Deziere', u'ATS-
2C25'), (101, u'Kunj', u'Sr Lecturer', u'Swift', u'ATS-2E65'), (101, u'Kunj', u'Sr Lecturer', u'Swift
Deziere', u'ATS-2C25')]

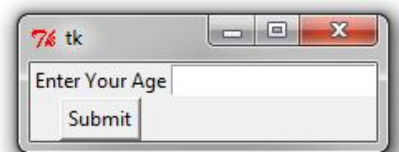
cur.execute("select emp2.id, ename, post, vehical, house from emp cross join emp1, emp2 where
emp.id=101")

cur.fetchall()

[(101, u'Kunj', u'Lecturer', u'Swift', u'ATS-2E65'), (102, u'Kunj', u'Lecturer', u'Swift Deziere', u'ATS-
2C25'), (101, u'Kunj', u'Sr Lecturer', u'Swift', u'ATS-2E65'), (102, u'Kunj', u'Sr Lecturer', u'Swift
Deziere', u'ATS-2C25')]
```

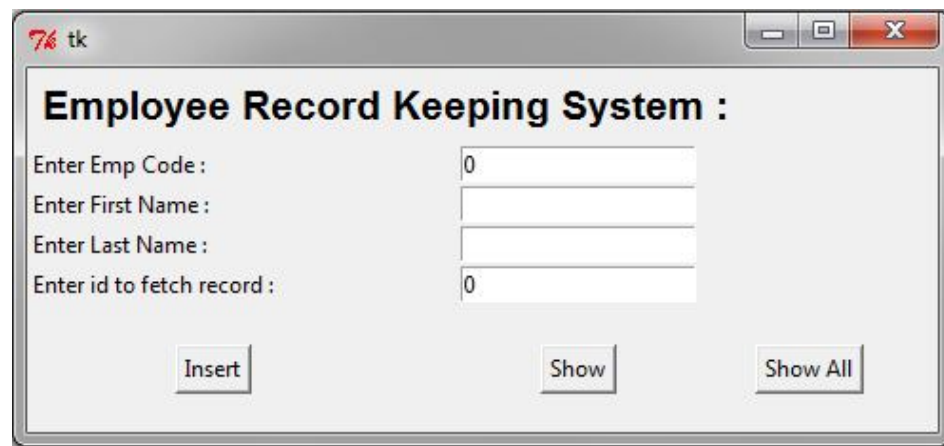
### Grid:

```
root=Tk()
Label(root, text="Enter Your Age").grid(row=0, column=0)
Entry(root).grid(row=0, column=1)
Button(root, text='Submit').grid(row=1, column=0)
mainloop()
```



## Exercise

1. Create a python script for Employee Record Keeping System, as shown in figures below.



7 tk

### Employee Record Keeping System :

Enter Emp Code :

Enter First Name :

Enter Last Name :

Enter id to fetch record :



7 tk

### Employee Record Keeping System :

Enter Emp Code :

Enter First Name :

Enter Last Name :

Enter id to fetch record :

Click Insert, Values get entered in database and all the fields are cleared as shown below



7 tk

### Employee Record Keeping System :

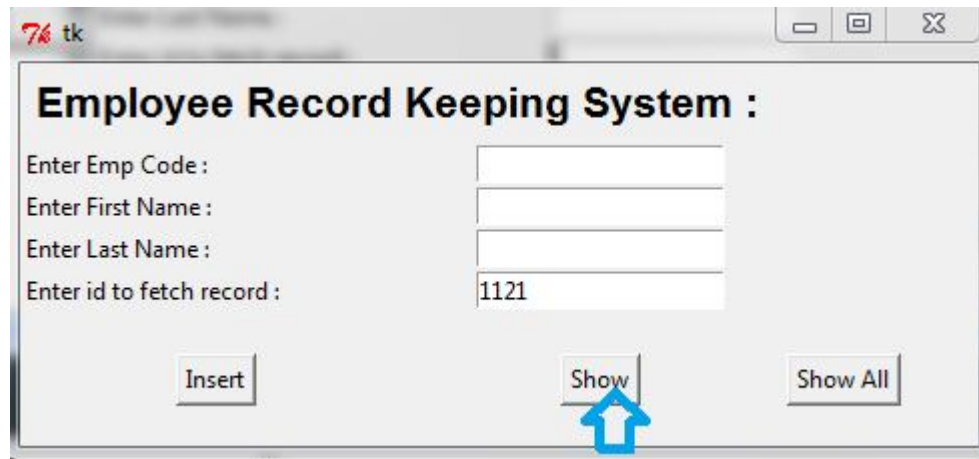
Enter Emp Code :

Enter First Name :

Enter Last Name :

Enter id to fetch record :

One can fetch record either one record at a time by clicking on Show button or all records (click on Show All button)



**Employee Record Keeping System :**

Enter Emp Code :

Enter First Name :

Enter Last Name :

Enter id to fetch record :

If the searched record is not found display an appropriate message to the user

2. Create a python script for Student Record Keeping System, consisting Student Enrolment, First Name, Last Name, Date of Birth, Father's name, Course(B Tech / M Tech ), Dept(CSE/ECE/MEC/Civil), Registration Date, Student Address, Student Mobile, Student Email, CGPA, Hobbies, Certification(RHCE/MCSE/CCNA/OCP)

Add more fields to retrieve records based on Highest CGPA, Highest Number Certifications, Registration Date, Student First Name, and Mobile No.