





In [6]:

```
1 import mysql.connector
2
3 def create_db():
4     mydb = mysql.connector.connect(
5         host="localhost",
6         user="root",
7         password="1234",
8         database="sqlproject"
9     )
10
11     mycursor = mydb.cursor()
12     return mydb, mycursor
13
14 def insert(mycursor, data):
15     query = '''INSERT INTO employee
16             (emp_id, first_name, last_name, age, gender, salary, city, departm
17             VALUES (%s, %s, %s, %s, %s, %s, %s, %s)'''
18
19     mycursor.execute(query, data)
20     mydb.commit()
21
22 def insertmany(mycursor, data):
23     query = '''INSERT INTO employee
24             (emp_id, first_name, last_name, age, gender, salary, city, departm
25             VALUES (%s, %s, %s, %s, %s, %s, %s, %s)'''
26
27     mycursor.executemany(query, data)
28     mydb.commit()
29
30 def update(mycursor, emp_id, new_salary):
31     query = '''UPDATE employee
32             SET salary = %s
33             WHERE emp_id = %s'''
34
35     values = (new_salary, emp_id)
36
37     mycursor.execute(query, values)
38     mydb.commit()
39
40 def delete(mycursor, emp_id):
41     query = '''DELETE FROM employee
42             WHERE emp_id = %s'''
43
44     values = (emp_id,)
45
46     mycursor.execute(query, values)
47     mydb.commit()
48
49 def select(mycursor):
50     mycursor.execute('SELECT * FROM employee')
51     result = mycursor.fetchall()
52     for row in result:
53         print(row)
54     print(" ")
55
56 try:
57     # Call the functions
58     mydb, mycursor = create_db()
59
60     # Insert single record
61     data = (101, 'Priya', 'Dayalan', 25, 'F', 80000, 'Chennai', 'IT')
```

```

62     insert(mycursor, data)
63
64     # Select and print all rows
65     select(mycursor)
66
67     # Insert multiple records
68     data = [
69         (102, 'Kanimozhi', 'Ezhumalai', 32, 'F', 50000, 'Delhi', 'BPO'),
70         (103, 'Gomathy', 'karthick', 28, 'F', 100000, 'New York', 'Finance'),
71         (104, 'kalai', 'selvan', 23, 'M', 200000, 'Nagpur', 'sales'),
72         (105, 'Pasupathy', 'Elumalai', 35, 'M', 230000, 'Kanchipuram', 'Purchase'),
73         (106, 'Akshay', 'Tiwari', 23, 'M', 300000, 'Katni', 'IT')
74     ]
75     insertmany(mycursor, data)
76
77     # Select and print all rows
78     select(mycursor)
79
80     # Update data for emp_id 101
81     update(mycursor, emp_id=101, new_salary=55000)
82
83     # Select and print all rows
84     select(mycursor)
85
86     # Delete data for emp_id 102
87     delete(mycursor, emp_id=102)
88
89     # Select and print all rows
90     select(mycursor)
91
92     finally:
93         # Close the connection
94         mycursor.close()
95         mydb.close()
96

```

(101, 'Priya', 'Dayalan', 25, 'F', 80000, 'Chennai', 'IT')

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 (102, 'Kanimozhi', 'Ezhumalai', 32, 'F', 50000, 'Delhi', 'BPO')  
 (103, 'Gomathy', 'karthick', 28, 'F', 100000, 'New York', 'Finance')  
 (104, 'kalai', 'selvan', 23, 'M', 200000, 'Nagpur', 'sales')  
 (105, 'Pasupathy', 'Elumalai', 35, 'M', 230000, 'Kanchipuram', 'Purchase')  
 (106, 'Akshay', 'Tiwari', 23, 'M', 300000, 'Katni', 'IT')

(101, 'Priya', 'Dayalan', 25, 'F', 55000, 'Chennai', 'IT')  
 (102, 'Kanimozhi', 'Ezhumalai', 32, 'F', 50000, 'Delhi', 'BPO')  
 (103, 'Gomathy', 'karthick', 28, 'F', 100000, 'New York', 'Finance')  
 (104, 'kalai', 'selvan', 23, 'M', 200000, 'Nagpur', 'sales')  
 (105, 'Pasupathy', 'Elumalai', 35, 'M', 230000, 'Kanchipuram', 'Purchase')  
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(101, 'Priya', 'Dayalan', 25, 'F', 55000, 'Chennai', 'IT')  
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 (105, 'Pasupathy', 'Elumalai', 35, 'M', 230000, 'Kanchipuram', 'Purchase')  
 (106, 'Akshay', 'Tiwari', 23, 'M', 300000, 'Katni', 'IT')



In [12]:

```
1 import mysql.connector
2
3 def create_db():
4     mydb = mysql.connector.connect(
5         host="localhost",
6         user="root",
7         password="1234",
8         database="sqlproject"
9     )
10    mycursor = mydb.cursor()
11    return mydb, mycursor
12
13 def insert(mycursor, data):
14     query = '''INSERT INTO department
15                (department_id, department_name)
16                VALUES (%s, %s)'''
17
18     mycursor.execute(query, data)
19     mydb.commit()
20
21 def insertmany(mycursor, data):
22     query = '''INSERT INTO department
23                (department_id, department_name)
24                VALUES (%s, %s)'''
25
26     mycursor.executemany(query, data)
27     mydb.commit()
28
29 def update(mycursor, new_department, department_id):
30     query = '''UPDATE department
31                SET department_name = %s
32                WHERE department_id = %s'''
33
34     values = (new_department, department_id)
35
36     mycursor.execute(query, values)
37     mydb.commit()
38
39 def delete(mycursor, department_id):
40     query = '''DELETE FROM department
41                WHERE department_id = %s'''
42
43     values = (department_id,)
44
45     mycursor.execute(query, values)
46     mydb.commit()
47
48 def select(mycursor):
49     mycursor.execute('SELECT * FROM department')
50     result = mycursor.fetchall()
51     for row in result:
52         print(row)
53     print(" ")
54
55 try:
56     # Call the functions
57     mydb, mycursor = create_db()
58
59     # Insert single record
60     data = ('001', 'IT')
61     insert(mycursor, data)
```

```

62
63     # Select and print all rows
64     select(mycursor)
65
66     # Insert multiple records
67     data = [('002', 'Finance'),
68             ('003', 'Medical'),
69             ('004', 'BPO'),
70             ('005', 'Education')]
71
72     insertmany(mycursor, data)
73
74     # Select and print all rows
75     select(mycursor)
76
77     # Update data for department_id '003'
78     update(mycursor, new_department='Healthcare & Sciences', department_id='003')
79
80     # Select and print all rows
81     select(mycursor)
82
83     # Delete data for department_id '004'
84     delete(mycursor, department_id='004')
85
86     # Select and print all rows
87     select(mycursor)
88
89 finally:
90     # Close the connection
91     mycursor.close()
92     mydb.close()
93

```

(1, 'IT')

(1, 'IT')  
(2, 'Finance')  
(3, 'Medical')  
(4, 'BPO')  
(5, 'Education')

(1, 'IT')  
(2, 'Finance')  
(3, 'Healthcare & Sciences')  
(4, 'BPO')  
(5, 'Education')

(1, 'IT')  
(2, 'Finance')  
(3, 'Healthcare & Sciences')  
(5, 'Education')

In [ ]:

1

