

# Lab 12

## Successful Operation

Code output:

```
[krishna@archlinux Java]$ java Main
Enter the following employee details one by one
SSN: 123456780
fname: Gatik
minit: d
lname: Jindal
bdate (YYYY-MM-DD): 1965-01-09
address: IIITB
sex: G
salary: 0
super_ssn: 123456789
dno: 5
pno: 1
number of hours: 21
Connected to Database! AutoCommit is off
Creating statement...
Inserting records into the table...
Employee: com.mysql.cj.jdbc.ClientPreparedStatement: INSERT INTO employee (ssn, fname, minit, lname, bdate, address, sex, salary, super_ssn, dno) VALUES ('123456780', 'Gatik', 'd', 'Jindal', '1965-01-09', 'IIITB',
'G', 0.0, '123456789', 5)
Works On: com.mysql.cj.jdbc.ClientPreparedStatement: INSERT INTO works_on (essn, pno, hours) VALUES ('123456780', 1, 21.0)
Inserted records into the table...
Committing the transaction based on the hours > 0 condition...
Transaction committed/rolled back successfully!
[krishna@archlinux Java]$
```

Tables output:

```
MariaDB [companydb]> select * from employee;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| ssn      | fname  | minit | lname  | bdate      | address                | sex | salary  | super_ssn | dno |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 123456780 | Gatik  | d     | Jindal | 1965-01-09 | IIITB                  | G   | 0.00    | 123456789 | 5   |
| 123456789 | John   | B     | Smith  | 1965-01-09 | 731 Fondren, Houston, TX | M   | 30000.00 | 333445555 | 5   |
| 333445555 | Franklin | T    | Wong   | 1955-01-09 | 638 Fondren, Houston, TX | M   | 40000.00 | 888665555 | 5   |
| 453453453 | Joyce  | A     | English | 1972-01-09 | 5631 Fondren, Houston, TX | F   | 25000.00 | 333445555 | 5   |
| 666884444 | Ramesh | K     | Narayan | 1962-01-09 | 975 Fondren, Houston, TX | M   | 38000.00 | 333445555 | 5   |
| 888665555 | James  | E     | Borg   | 1937-01-09 | 450 Fondren, Houston, TX | M   | 55000.00 | NULL      | 1   |
| 987654321 | Jennifer | S    | Wallace | 1941-01-09 | 21 Fondren, Houston, TX  | F   | 43000.00 | 888665555 | 4   |
| 987987987 | Ahmad  | V     | Jabbar  | 1969-01-09 | 980 Fondren, Houston, TX | M   | 25000.00 | 987654321 | 4   |
| 999887777 | Alicia | J     | Zelaya  | 1968-01-09 | 3321 Fondren, Houston, TX | F   | 25000.00 | 987654321 | 4   |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
9 rows in set (0.000 sec)

MariaDB [companydb]> select * from works_on;
+-----+-----+-----+
| essn  | pno | hours |
+-----+-----+-----+
| 123456780 | 1 | 21.00 |
| 123456789 | 1 | 32.50 |
| 123456789 | 2 | 7.50  |
| 333445555 | 2 | 10.00 |
| 333445555 | 3 | 10.00 |
| 333445555 | 10 | 10.00 |
| 333445555 | 20 | 10.00 |
| 453453453 | 1 | 20.00 |
| 453453453 | 2 | 20.00 |
| 666884444 | 3 | 40.00 |
| 987654321 | 20 | 15.00 |
| 987654321 | 30 | 20.00 |
| 987987987 | 10 | 35.00 |
| 987987987 | 30 | 5.00  |
| 999887777 | 10 | 10.00 |
| 999887777 | 30 | 30.00 |
+-----+-----+-----+
16 rows in set (0.000 sec)

MariaDB [companydb]>
```

## Unsuccessful Operation

Code output:

```
[krishna@archlinux Java]$ java Main
Enter the following employee details one by one
SSN: 123456781
fname: Gathik
minit: D
lname: Jindal
bdate (YYYY-MM-DD): 1965-01-01
address: IIITB
sex: M
salary: 0
super_ssn: 123456789
dno: 5
pno: 1
number of hours: 0
Connected to Database! AutoCommit is off
Creating statement...
Inserting records into the table...
Employee: com.mysql.cj.jdbc.ClientPreparedStatement: INSERT INTO employee (ssn, fname, minit, lname, bdate, address, sex, salary, super_ssn, dno) VALUES ('123456781', 'Gathik', 'D', 'Jindal', '1965-01-01', 'IIITB', 'M', 0.0, '123456789', 5)
Works On: com.mysql.cj.jdbc.ClientPreparedStatement: INSERT INTO works_on (essn, pno, hours) VALUES ('123456781', 1, 0.0)
Inserted records into the table...
Committing the transaction based on the hours > 0 condition...
Rolling back the transaction as hours <= 0...
Transaction committed/rolled back successfully!
[krishna@archlinux Java]$
```

Tables output:

```
MariaDB [companydb]> clear
MariaDB [companydb]> select * from employee;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| ssn      | fname | minit | lname | bdate      | address                                | sex | salary | super_ssn | dno |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 123456780 | Gatik | d      | Jindal | 1965-01-09 | IIITB                                | G   | 0.00   | 123456789 | 5   |
| 123456789 | John  | B      | Smith  | 1965-01-09 | 731 Fondren, Houston, TX            | M   | 30000.00 | 333445555 | 5   |
| 333445555 | Franklin | T    | Wong   | 1955-01-09 | 638 Fondren, Houston, TX            | M   | 40000.00 | 888665555 | 5   |
| 453453453 | Joyce | A      | English | 1972-01-09 | 5631 Fondren, Houston, TX            | F   | 25000.00 | 333445555 | 5   |
| 666884444 | Ramesh | K    | Narayan | 1962-01-09 | 975 Fondren, Houston, TX            | M   | 38000.00 | 333445555 | 5   |
| 888665555 | James | E      | Borg   | 1937-01-09 | 450 Fondren, Houston, TX            | M   | 55000.00 | NULL      | 1   |
| 987654321 | Jennifer | S   | Wallace | 1941-01-09 | 21 Fondren, Houston, TX            | F   | 43000.00 | 888665555 | 4   |
| 987987987 | Ahmad | V      | Jabbar | 1969-01-09 | 980 Fondren, Houston, TX            | M   | 25000.00 | 987654321 | 4   |
| 999887777 | Alicia | J      | Zelaya | 1968-01-09 | 3321 Fondren, Houston, TX            | F   | 25000.00 | 987654321 | 4   |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
9 rows in set (0.001 sec)

MariaDB [companydb]> select * from works_on;
+-----+-----+-----+
| essn      | pno | hours |
+-----+-----+-----+
| 123456780 | 1   | 21.00 |
| 123456789 | 1   | 32.50 |
| 123456789 | 2   | 7.50  |
| 333445555 | 2   | 10.00 |
| 333445555 | 3   | 10.00 |
| 333445555 | 10  | 10.00 |
| 333445555 | 20  | 10.00 |
| 453453453 | 1   | 20.00 |
| 453453453 | 2   | 20.00 |
| 666884444 | 3   | 40.00 |
| 987654321 | 20  | 15.00 |
| 987654321 | 30  | 20.00 |
| 987987987 | 10  | 35.00 |
| 987987987 | 30  | 5.00  |
| 999887777 | 10  | 10.00 |
| 999887777 | 30  | 30.00 |
+-----+-----+-----+
16 rows in set (0.000 sec)

MariaDB [companydb]>
```

Dependent Report

```
[krishna@archlinux Java]$ java Dependent
* * * *
Employee full name: John Smith
Dependent #1 : Michael (Son)
Dependent #2 : Elizabeth (Spouse)
Dependent #3 : Alice (Daughter)
* * * *
Employee full name: Franklin Wong
Dependent #1 : Theodore (Son)
Dependent #2 : Joy (Spouse)
Dependent #3 : Alice (Daughter)
* * * *
Employee full name: Jennifer Wallace
Dependent #1 : Abner (Spouse)
* * * *
[krishna@archlinux Java]$ |
```

Code output: