

Week-2-Assignment

Modern Application Development(Java Spring Boot)

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20BCE1743

1. Create,update,delete commands in mysql

Create(employee table)

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS

Filter objects

employees

Tables

Views

Stored Procedures

Functions

sakila

sys

world

Query 1

```
1 CREATE TABLE employees.employee (
2   id INT PRIMARY KEY,
3   name VARCHAR(50),
4   age INT,
5   department VARCHAR(50)
6 );
7
```

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Administration Schemas

Information: Schema: employees

Output

#	Time	Action	Message	Duration / Fetch
2	11:31:07	Apply changes to employees	Error 1046: No database selected SQL Statement: CREATE TABLE employees (...	
3	11:31:29	Apply changes to employees	Changes applied	
4	11:31:46	CREATE TABLE employees (id INT PRIMARY KEY, name VARCHAR(50), ...	Error Code: 1046. No database selected Select the default DB to be used by doubl...	0.000 sec
5	11:33:52	CREATE TABLE employees.employee (id INT PRIMARY KEY, name VARCH...	0 row(s) affected	0.047 sec

Result Grid

	id	name	age	department
*	NULL	NULL	NULL	NULL

Filter Rows: Edit: Export/Import: Wrap Cell Content: Result Grid

Insert

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

employees

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Views

Stored Procedures

Functions

sakila

sys

world

Query 1

```
1 • INSERT INTO employee (id, name, age, department)
2   VALUES
3     (3, 'Sony', 40, 'IT'),
4     (4, 'Sam', 50, 'IT');
```

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Administration Schemas

Information

Schema: employees

Output

#	Time	Action	Message	Duration / Fetch
17	11:55:07	VALUES (3, 'Sony', 40, IT)	Error Code: 1064. You have an error in your SQL syntax; check the manual that cor...	0.000 sec
18	11:55:49	INSERT INTO employees (id, name, age, department) VALUES (2, 'William', 20, 'I...	Error Code: 1146. Table 'employees.employees' doesn't exist	0.000 sec
19	11:55:55	INSERT INTO employees (id, name, age, department) VALUES (2, 'William', 20, 'I...	Error Code: 1062. Duplicate entry '2' for key 'employee PRIMARY'	0.000 sec
20	11:56:18	INSERT INTO employees (id, name, age, department) VALUES (2, 'William', 20, 'I...	Error Code: 1146. Table 'employees.employees' doesn't exist	0.000 sec
21	11:56:28	INSERT INTO employees (id, name, age, department) VALUES (3, 'Sony', 40, IT...	Error Code: 1146. Table 'employees.employees' doesn't exist	0.000 sec
22	11:56:34	INSERT INTO employee (id, name, age, department) VALUES (3, 'Sony', 40, IT)	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.016 sec

Object Info Session

Query 1 x

```
1
2
3
4 • USE employees;
5 • SELECT * FROM employee;
```

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

	id	name	age	department
▶	1	John	30	IT
	2	William	20	IT
	3	Sony	40	IT
	4	Sam	50	IT
*		NULL	NULL	NULL

employees 4 x

Apply Revert

Context Help Snippets

Output

#	Time	Action	Message	Duration / Fetch
19	11:55:55	INSERT INTO employee (id, name, age, department) VALUES (2, 'William', 20, 'I...	Error Code: 1062. Duplicate entry '2' for key 'employee PRIMARY'	0.000 sec
20	11:56:18	INSERT INTO employees (id, name, age, department) VALUES (2, 'William', 20, 'I...	Error Code: 1146. Table 'employees.employees' doesn't exist	0.000 sec
21	11:56:28	INSERT INTO employees (id, name, age, department) VALUES (3, 'Sony', 40, IT...	Error Code: 1146. Table 'employees.employees' doesn't exist	0.000 sec
22	11:56:34	INSERT INTO employee (id, name, age, department) VALUES (3, 'Sony', 40, IT)	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.016 sec
23	11:57:39	USE employees	0 row(s) affected	0.000 sec
24	11:57:39	SELECT * FROM employee LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec

Update

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

employees

Tables

Views

Stored Procedures

Functions

sakila

sys

world

Query:1 x

Limit to 1000 rows

SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Information

Schema: employees

Object Info Session

Output

Action Output

#	Time	Action	Message	Duration / Fetch
20	11:56:18	INSERT INTO employees (id, name, age, department) VALUES (2, 'William', 20, 'IT')	Error Code: 1146. Table 'employees.employees' doesn't exist	0.000 sec
21	11:56:28	INSERT INTO employees (id, name, age, department) VALUES (3, 'Sony', 40, 'IT')	Error Code: 1146. Table 'employees.employees' doesn't exist	0.000 sec
22	11:56:34	INSERT INTO employee (id, name, age, department) VALUES (3, 'Sony', 40, 'IT')	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.016 sec
23	11:57:39	USE employees	0 row(s) affected	0.000 sec
24	11:57:39	SELECT * FROM employee LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
25	11:59:43	UPDATE employee SET name = 'John S', age = 29, department = 'HR' WHERE id = 1;	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec

Query 1 x

Limit to 1000 rows

```

1
2 • USE employees;
3
4 • SELECT * FROM employee;
5
6

```

Result Grid

Filter Rows:

Edit: Export/Import: Wrap Cell Content:

	id	name	age	department
▶	1	John S	29	HR
	2	William	20	IT
	3	Sony	40	IT
	4	Sam	50	IT
	5	NULL	NULL	NULL
	6	NULL	NULL	NULL

Result Grid

Delete

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS

Filter objects

Views
Stored Procedures
Functions
employees
Tables
company
Columns
Indexes
Foreign Keys
Triggers
employee
Views
Stored Procedures
Functions

Administration Schemas

Information

Table: **employee**

Columns:

id	int PK
name	varchar(50)
age	int
department	varchar(50)

Object Info Session

Query 1 x

Limit to 1000 rows

1 • DELETE FROM employee WHERE id = 1;
2

Result Grid

id	name	age	department
2	William	20	IT
3	Sony	40	IT
4	Sam	50	IT
NULL	NULL	NULL	NULL

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
5	16:44:05	DELETE FROM employee WHERE id = 1	Error Code: 1046. No database selected Select th...	0.016 sec
6	16:44:43	DELETE FROM employee WHERE id = 1	Error Code: 1046. No database selected Select th...	0.000 sec
7	16:45:53	DELETE FROM employee WHERE id = 1	Error Code: 1046. No database selected Select th...	0.000 sec
8	16:47:16	DELETE FROM employee WHERE id = 1	1 row(s) affected	0.031 sec
9	16:47:50	USE employees	0 row(s) affected	0.000 sec
10	16:47:50	Select * from employee LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS

Filter objects

Views
Stored Procedures
Functions
employees
Tables
company
Columns
Indexes
Foreign Keys
Triggers
employee
Views
Stored Procedures
Functions

Administration Schemas

Information

Table: **employee**

Columns:

id	int PK
name	varchar(50)
age	int
department	varchar(50)

Object Info Session

Query 1 x

Limit to 1000 rows

1 USE employees;
2 • Select * from employee;
3

Result Grid

id	name	age	department
2	William	20	IT
3	Sony	40	IT
4	Sam	50	IT
NULL	NULL	NULL	NULL

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
5	16:44:05	DELETE FROM employee WHERE id = 1	Error Code: 1046. No database selected Select th...	0.016 sec
6	16:44:43	DELETE FROM employee WHERE id = 1	Error Code: 1046. No database selected Select th...	0.000 sec
7	16:45:53	DELETE FROM employee WHERE id = 1	Error Code: 1046. No database selected Select th...	0.000 sec
8	16:47:16	DELETE FROM employee WHERE id = 1	1 row(s) affected	0.031 sec
9	16:47:50	USE employees	0 row(s) affected	0.000 sec
10	16:47:50	Select * from employee LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

2. Create tables and perform joins in mysql

a) Create company table

The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left shows the 'employees' schema selected. The 'Query 1' editor contains the following SQL code:

```
1 CREATE TABLE employees.company (  
2     id INT PRIMARY KEY,  
3     company_name VARCHAR(50),  
4     location VARCHAR(50)  
5 );  
6  
7
```

The 'Output' pane at the bottom shows the execution results:

#	Time	Action	Message	Duration / Fetch
23	11:57:39	USE employees	0 row(s) affected	0.000 sec
24	11:57:39	SELECT * FROM employee LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
25	11:59:43	UPDATE employee SET name = 'John S', age = 29, department = 'HR' WHERE id ...	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
26	12:00:40	USE employees	0 row(s) affected	0.000 sec
27	12:00:40	SELECT * FROM employee LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
28	12:05:56	CREATE TABLE employees.company (id INT PRIMARY KEY, company_nam...	0 row(s) affected	0.063 sec

b) Insert into company table

The screenshot shows the MySQL Workbench interface. The 'Query 1' editor contains the following SQL code:

```
1 INSERT INTO company (id, company_name, location)  
2 VALUES  
3     (1, 'TCS', 'Chennai'),  
4     (2, 'CTS', 'Mumbai'),  
5     (3, 'Google', 'Delhi');  
6  
7
```

The 'Result Grid' at the bottom shows the data inserted into the 'company' table:

	id	company_name	location
▶	1	TCS	Chennai
	2	CTS	Mumbai
	3	Google	Delhi
*	NULL	NULL	NULL

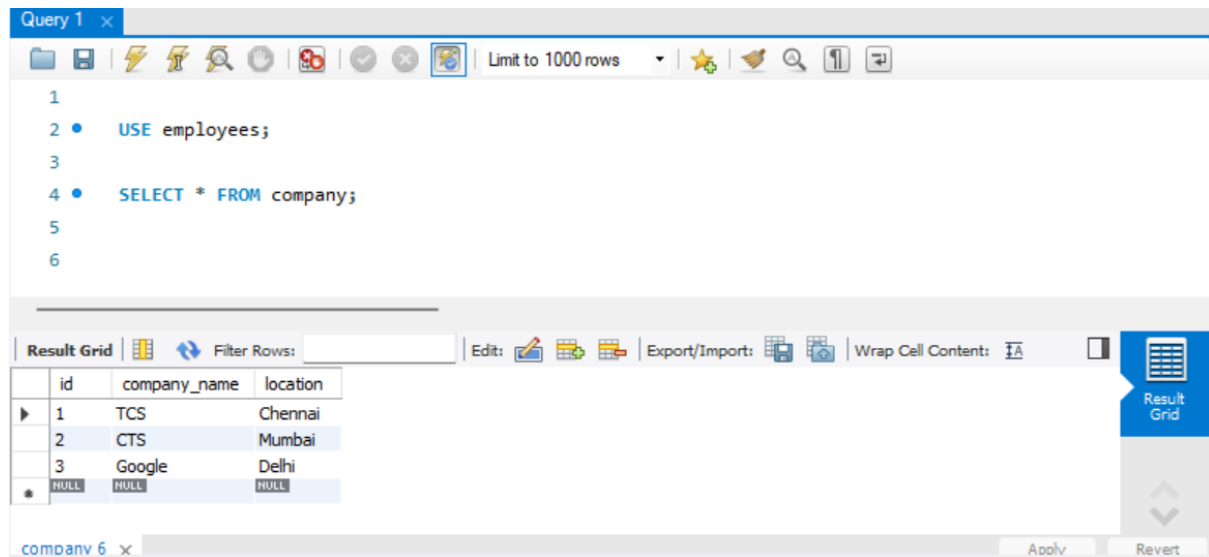
c) join tables

The screenshot shows the MySQL Workbench interface. The 'Query 1' editor contains the following SQL code:

```
1 SELECT employee.id, employee.name, employee.age, employee.department, company.company_name  
2 FROM employee  
3 JOIN company ON employee.id = company.id;  
4
```

The 'Result Grid' at the bottom shows the results of the JOIN query:

	id	name	age	department	company_name
▶	1	John S	29	HR	TCS
	2	William	20	IT	CTS
	3	Sony	40	IT	Google



3) Create, update, delete commands in mongo

a) create

```
test> show dbs
admin    40.00 KiB
config  60.00 KiB
local    40.00 KiB
test> use cscorner
switched to db cscorner
cscorner> db.createCollection("employees");
{ ok: 1 }
```

b) insertOne

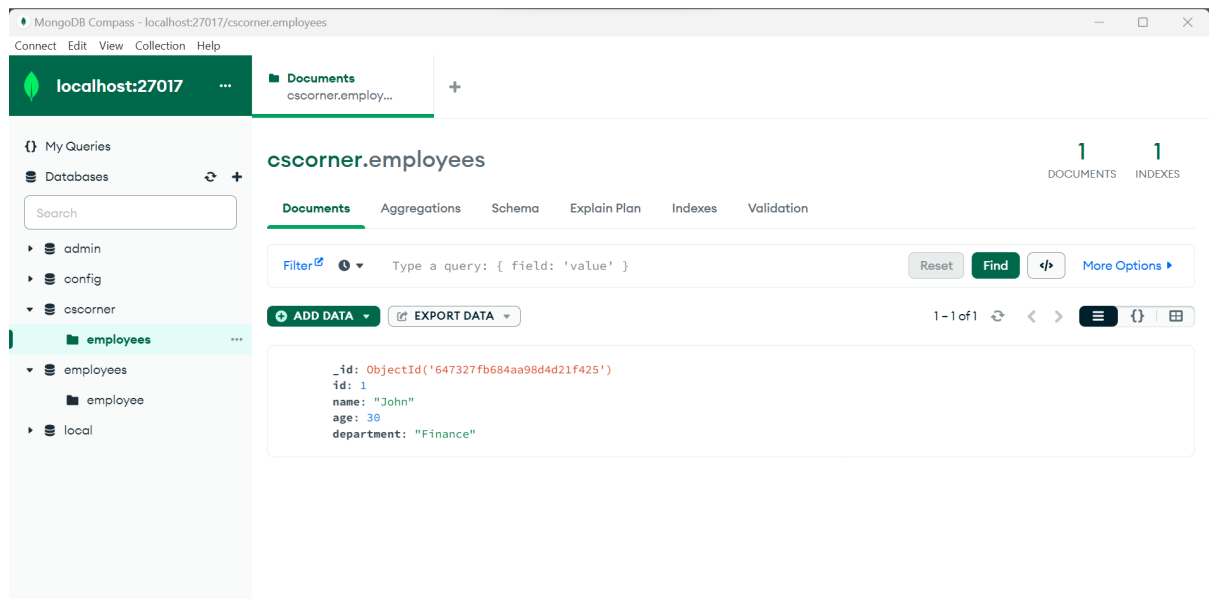
```
cscorner> db.employees.insertOne({
... id:1,
... name:"John",
... age:30,
... department:"IT"
... });
{
  acknowledged: true,
  insertedId: ObjectId("647327fb684aa98d4d21f425")
}
```

```
cscorner> db.employees.find()
[
  {
    _id: ObjectId("647327fb684aa98d4d21f425"),
    id: 1,
    name: 'John',
    age: 30,
    department: 'IT'
  }
]
```

c) updateOne

```
cscorner> db.employees.updateOne(
... {id:1},
... {$set: {department:"Finance"}}
... );
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

```
cscorner> db.employees.find()
[
  {
    _id: ObjectId("647327fb684aa98d4d21f425"),
    id: 1,
    name: 'John',
    age: 30,
    department: 'Finance'
  }
]
```



deleteOne

```
cscorner> db.employees.deleteOne({id:1});
{ acknowledged: true, deletedCount: 1 }
cscorner> db.employees.find()

cscorner>
```

insertMany()

```
cscorner> db.employees.insertMany([
... {id:2, name:"Jane", age:35,department:"HR"},
... {id:3, name:"Johnson",age:30 ,department:"Sales"},
... {id:4,name:"Rack",age:28,department:"HR"},
... ]);
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("64733043684aa98d4d21f429"),
    '1': ObjectId("64733043684aa98d4d21f42a"),
    '2': ObjectId("64733043684aa98d4d21f42b")
  }
}
```


localhost:27017 ... Documents cscorner.employ...

My Queries Databases Search

- admin
- config
- cscorner
 - employees
 - employees
 - employee
 - local
 - startup_log

cscorner.employees 3 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' } Reset Find More Options

ADD DATA EXPORT DATA 1 - 3 of 3

```

_id: ObjectId('64733043684aa98d4d21f429')
id: 2
name: "Jane"
age: 35
department: "HR"

_id: ObjectId('64733043684aa98d4d21f42a')
id: 3
name: "Johnson"
age: 30
department: "Sales"

_id: ObjectId('64733043684aa98d4d21f42b')

```

cscorner.employees 3 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' } Reset Find More Options

ADD DATA EXPORT DATA 1 - 3 of 3

```

_id: ObjectId('64733043684aa98d4d21f42a')
id: 3
name: "Johnson"
age: 30
department: "Sales"

_id: ObjectId('64733043684aa98d4d21f42b')
id: 4
name: "Rack"
age: 28
department: "HR"

```

updateMany()

```

cscorner> db.employees.updateMany({department: "HR"},
...  {$set:{age:31}}
... );
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
cscorner>

```

cscorner.employees

3 1
DOCUMENTS INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter ⓘ ⓘ Type a query: { field: 'value' }

Reset

Find

⌘

More Options ▶

➕ ADD DATA ▼

📄 EXPORT DATA ▼

1 - 3 of 3

↺

↻

☰

{ }

🏠

```
_id: ObjectId('64733043684aa98d4d21f429')
id: 2
name: "Jane"
age: 31
department: "HR"
```

```
_id: ObjectId('64733043684aa98d4d21f42a')
id: 3
name: "Johnson"
age: 30
department: "Sales"
```

```
id: ObjectId('64733043684aa98d4d21f42b')
```

```
_id: ObjectId('64733043684aa98d4d21f42a')
id: 3
name: "Johnson"
age: 30
department: "Sales"
```

```
_id: ObjectId('64733043684aa98d4d21f42b')
id: 4
name: "Rack"
age: 31
department: "HR"
```

```
cscorner> db.employees.find()
[
  {
    _id: ObjectId("64732bab684aa98d4d21f426"),
    id: 2,
    name: 'Smith',
    age: 31,
    department: 'HR'
  },
  {
    _id: ObjectId("64732bab684aa98d4d21f427"),
    id: 3,
    name: 'Johnson',
    age: 28,
    department: 'Sales'
  },
  {
    _id: ObjectId("64732bab684aa98d4d21f428"),
    id: 4,
    name: 'Rack',
    age: 31,
    department: 'HR'
  }
]
cscorner>
```

deleteMany()

```
cscorner> db.employees.deleteMany({department:"HR"});  
{ acknowledged: true, deletedCount: 2 }  
cscorner>
```

MongoDB Compass - localhost:27017/cscorner.employees

Connect Edit View Help

localhost:27017 Documents cscorner.employ...

My Queries Databases

Search

- admin
- config
- cscorner
 - employees
 - employees
 - employee
 - local

cscorner.employees 1 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' } Reset Find More Options

ADD DATA EXPORT DATA

1 - 1 of 1

```
{  
  "_id": ObjectId('64732bab684aa98d4d21f427'),  
  "id": 3,  
  "name": "Johnson",  
  "age": 28,  
  "department": "Sales"  
}
```