

CS Lab Database

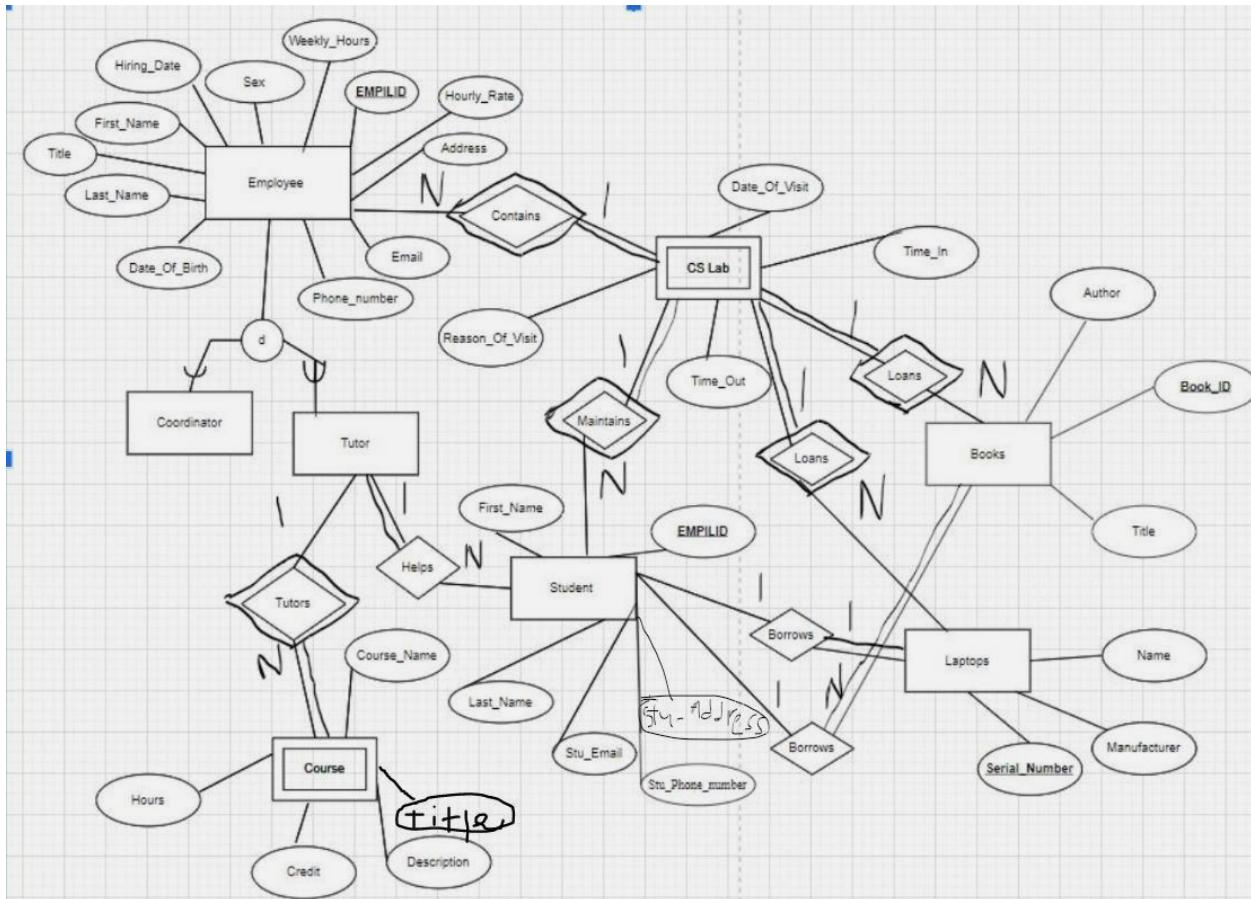


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CMP 420
05/09/2022

Introduction:

The Computer Science Lab (CS Lab) wants to build a database for maintaining its records. You are invited as a database architect to develop a database schema for keeping track of their data.

Part 1: ER Diagram



What I did for my diagram here was first set up the strong entities. The first one I made was the employee. Since there was only one choice between tutor and coordinator, there needed to be a disjoint. After employee, I made the Student table, laptop table, and book table. I had to make a weak entity called CS Lab as that was where students were going. There can't be a CS Lab without Employees or students which is why it's a weak entity. The same can be said for courses as they don't exist in this context without the tutors. With my cardinality relationships, I only used 1 to 1 once with students and laptops. I assumed one student can only take out one laptop, while students could take out multiple books. A tutor can tutor many different courses and they also tutor a lot of students. The CS Lab manages a lot of students as well and can contain many different employees. And it also lends out many laptops and many books for the students to take out and use.

Part 2: Relational Model

Employee											
EMPILID	First_Name	Last_Name	DateOfBirth	Address	Sex	Title	Email	Hiring_Date	Phone_Number	Weekly_Hours	Hourly_Rate
90434911	Erick	Highwind	1990-09-29	7116 Cemetery St. Rochester, NY 14609 7244 Riverside St.	M	Tutor	ErickHighwind10@gmail.com	2020-12-12	618-648-3923	47	27.87
80212398	Lukas	Corvo	1998-02-02	Staten Island, NY 10314 39 W. Victoria St.	M	Tutor	LukasCor2247@gmail.com	2020 - 04-27	712-973-8836	40	30
74930572	Cynthia	Garcias	1993-04-20	Bronx, NY 10463 586 George St.	F	Tutor	Cynthia9908@gmail.com	2018 - 10 - 08	317-766-3441 889-868-5665	35	50.24
23345673	Eleni	Arnold	1999-05-24	Troy, NY 12180 9839 Inverness Ave.	F	Coordinator	EleniArnold109@gmail.com	2021 - 11 - 20		30	20.35
25316923	Zion	Trujillo	1998-04-14	Bronx, NY 10456	M	Coordinator	ZionTrujillo16@gmail.com	2022 - 02 - 6	(962) 540-8787	39	40

Coordinator	
EMPILID	
34561386	
45729136	
23345673	
30405021	
25316923	

Tutor	
EMPILID	
90434911	
80212398	
74930572	
27450201	
35728193	

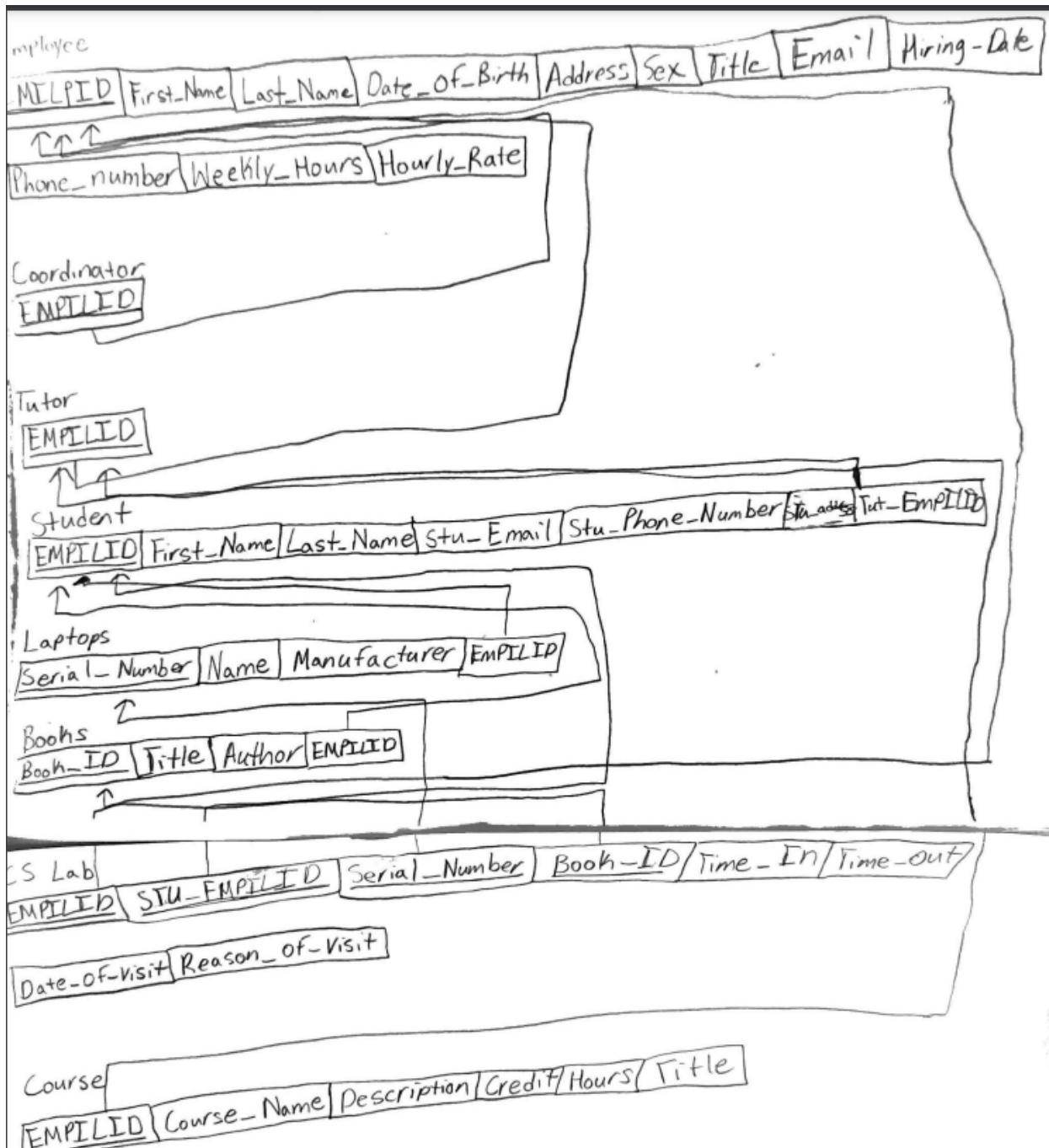
Student							
EMPILID	First_Name	Last_Name	Stu_Email	Stu_Phone_Number	Stu_Address		Tut_EMPILID
29487561	Lola	Mayflower	lolamay81@gmail.com	(817) 904-9940	308 Campfire St. Bronx, NY 10458		74930572
96768492	Poppie	Ramsay	Ramsaypop012@gmail.com	(603) 241-0754	22 Madison Ave. Brooklyn, NY 11213		27450201
67391058	Fern	Hansen	Fernhansen91@gmail.com	(325) 356-6825	8768 Oakwood Avenue Fairport, NY 14450		30585302
53805938	Omer	Schultz	Schultz156@yahoo.com	(426) 941-5402	310 Thomas Street Bronx, NY 10468		90434911
71056821	Mercy	Pruitt	Mercypruitt54@gmail.com	(578) 658-8130	937 Myrtle Dr. New York, NY 10023		35728193

Laptops			
Serial_Number	Name	Manufacturer	Stu_EMPIID
KH9OH-BKRFF-6XGV4-E1D36-OGEAM	LG gram 15Z980	LG	96768492
K0FW0-Y68IX-Y5B8S-3GU73-WIOP0	Apple MacBook Air	Apple	53805938
RHCH2-BALOQ-K1C7W-JLZJM-W3HRI	Microsoft Surface Laptop 4	Microsoft	71056821
6NJ45-R59F7-T00Z2-NSDM-MXZ1V	HP Spectre x360	HP	67391058
3WIOP-ORHCH-2BALO-QK1C7-WJLZJ	Dell XPS 13	Dell	29487561

Books			
Book_ID	Title	Author	Stu_EMPIID
0-4507-7535-6	Calculus, 5th Edition	James Stewart	96768492
0-2462-5895-0	Thinking in Java 4th Edition	Bruce Eckel	29487561
0-7900-7955-0	Campbell Biology 12th Edition	Kelly Reece, Jane B.; Taylor, Mart	71056821
0-8531-1346-7	Linear Algebra: Step by Step	Kuldeep Singh	67391058
0-4070-7914-9	Anatomy and Physiology	J. Gordon Betts, Peter Desaix	53805938

CS Lab							
EMPILID	STU_EMPIID	Serial_Number	Book_ID	Time_In	Time_Out	Date_Of_Visit	Reason_Of_Visit
80212398	53805938	KH9OH-BKRFF-	0-4507-7535-6	3:57 PM	17:00	4/4/2021	Tutoring
96768492	71056821	6NJ45-R59F7-T(0-7900-7955-0	11:10 AM	1:00 PM	5/12/2021	Tutoring	
25316923	67391058	K0FW0-Y68IX-Y5B8S-3GU73-WI	9:00 AM	12:00 PM	6/10/2021	Tutoring	

Course						
EMP_EMPIID	Course_Name	Description	Credit	Hours	Title	
74930572	CMP 338	Data Structures and Algorithms	4	2	Tutor	
25316923	MAT 313	Elements of Linear Algebra	4	2	Tutor	
23345673	CMP 167	Programming Methods 1	4	2	Coordinator	
80212398	CMP 168	Programming Methods 2	4	2	Tutor	



The steps I took to make this a relational model were simple. I went ahead and wanted to make a relational database schema. The very first thing I did was chart out all the strong entities and their attributes. Then after that, I put in the weak entities. After that, I began to put foreign keys where they needed to be depending on the cardinality relationship in order. So from one to one, I placed the foreign key where it needed to go, this one being the Student EMPID ID going into the Laptop entity. The same followed with the other relationships as the rest were just one too many. So I had pretty much placed foreign keys from the 1 side to the n side and kept it that way.

Then I turned it into a relational model by putting that information in and then putting data inside the tuples.

Part 3: Normalization and Relational Dependencies

Employee 1NF											
EMPILID	First_Name	Last_Name	Date_Of_Birth	Address	Sex	Title	Email	Hiring_Date	Phone_Number	Weekly_Hours	Hourly_Rate
90434911	Erick	Highwind	1990-09-29	7116 Cemetery St. Rochester, NY 14609	M	Tutor	ErickHighwind10@gmail.com	2020-12-12	618-648-3923	47	27.87
80212398	Lukas	Corvo	1998-02-02	7244 Riverside St. Staten Island, NY 10314	M	Tutor	LukasCor2247@gmail.com	2020 - 04-27	712-973-8836	40	30
74930572	Cynthia	Garcias	1993-04-20	39 W. Victoria St. Bronx, NY 10463	F	Tutor	Cynthia8908@gmail.com	2018 - 10 - 08	317-766-3441 889-868-5665	35	50.24
23345673	Eleni	Arnold	1999-05-24	586 George St. Troy, NY 12180	F	Coordinator	EleniArnold109@gmail.com	2021 - 11 - 20		30	20.35
25316923	Zion	Trujillo	1998-04-14	9839 Inverness Ave. Bronx, NY 10456	M	Coordinator	ZionTrujillo16@gmail.com	2022 - 02 - 6	(962) 540-8787	39	40

Employee 2NF										
EMPILID	First_Name	Last_Name	Date_Of_Birth	Address	Sex	Title	Email	Phone_Number		
90434911	Erick	Highwind	1990-09-29	7116 Cemetery St. Rochester, NY 14609	M	Tutor	ErickHighwind10@gmail.com	618-648-3923		
80212398	Lukas	Corvo	1998-02-02	7244 Riverside St. Staten Island, NY 10314	M	Tutor	LukasCor2247@gmail.com	712-973-8836		
74930572	Cynthia	Garcias	1993-04-20	39 W. Victoria St. Bronx, NY 10463	F	Tutor	Cynthia8908@gmail.com	317-766-3441 889-868-5665		
23345673	Eleni	Arnold	1999-05-24	586 George St. Troy, NY 12180	F	Coordinator	EleniArnold109@gmail.com			
25316923	Zion	Trujillo	1998-04-14	9839 Inverness Ave. Bronx, NY 10456	M	Coordinator	ZionTrujillo16@gmail.com	(962) 540-8787		

Employee 2NF				
EMPILID	Hiring_Date	Weekly_Hours	Hourly_Rate	
90434911	2020-12-12	47	27.87	
80212398	2020 - 04 - 27	40	30	
74930572	2018 - 10 - 08	35	50.24	
23345673	2021 - 11 - 20	30	20.35	
25316923	2022 - 02 - 6	39	40	

Employee 3NF				
EMPILID	Hiring_Date			
90434911	2020-12-12			
80212398	2020 - 04 - 27			
74930572	2018 - 10 - 08			
23345673	2021 - 11 - 20			
25316923	2022 - 02 - 6			

Employee 3NF				
Hiring_Date	Weekly_Hours	Hourly_Rate		
2020-12-12	47	27.87		
2020 - 04 - 27	40	30		
2018 - 10 - 08	35	50.24		
2021 - 11 - 20	30	20.35		
2022 - 02 - 6	39	40		

CS Lab 1NF							
EMPILID	STU_EMPILID	Serial_Number	Book_ID	Time_In	Time_Out	Date_Of_Visit	Reason_Of_Visit
			0-4507-7535-6				
80212398	53805938	KH9OH-BKRFF-		3:57 PM	17:00	4/4/2021	Tutoring
96768492	71056821	6NJ45-R59F7-T0-7900-7955-0		11:10 AM	1:00 PM	5/12/2021	Tutoring
25316923	67391058	K0FW0-Y68IX-Y5B8S-3GU73-WI		9:00 AM	12:00 PM	6/10/2021	Tutoring

CS Lab 2NF								
EMPILID	STU_EMPILID	Serial_Number	Book_ID	Time_In	Time_Out	Date_Of_Visit	Reason_Of_Visit	
			0-4507-7535-6					
80212398	53805938	KH9OH-BKRFF-		3:57 PM	17:00	4/4/2021	Tutoring	
96768492	71056821	6NJ45-R59F7-T0-7900-7955-0		11:10 AM	1:00 PM	5/12/2021	Tutoring	
25316923	67391058	K0FW0-Y68IX-Y5B8S-3GU73-WI		9:00 AM	12:00 PM	6/10/2021	Tutoring	
EMPILID	STU_EMPILID	Time_In	Time_Out	Date_Of_Visit	Reason_Of_Visit			
80212398	53805938	3:57 PM	17:00	4/4/2021	Tutoring			
96768492	71056821	11:10 AM	1:00 PM	5/12/2021	Tutoring			
25316923	67391058	9:00 AM	12:00 PM	6/10/2021	Tutoring			
EMPILID	STU_EMPILID	Serial_Number	Time_In	Time_Out				
80212398	53805938	KH9OH-BKRFF-6XGV4-E1D36-OGEAM		3:57 PM	17:00			
96768492	71056821	6NJ45-R59F7-T00Z2-NSDM-MXZ1V		11:10 AM	1:00 PM			
25316923	67391058	K0FW0-Y68IX-Y5B8S-3GU73-WIOP0		9:00 AM	12:00 PM			
EMPILID	STU_EMPILID	Book_ID	Time_In	Time_Out				
		0-4507-7535-6						
80212398	53805938		3:57 PM	17:00				
96768492	71056821	0-7900-7955-0	11:10 AM	1:00 PM				
25316923	67391058	0-3492-5838-2	9:00 AM	12:00 PM				

CS Lab 3NF							
EMPILID	STU_EMPILID	Serial_Number	Book_ID	Time_In	Time_Out	Date_Of_Visit	Reason_Of_Visit
			0-4507-7535-6				
80212398	53805938	KH9OH-BKRFF-		3:57 PM	17:00	4/4/2021	Tutoring
96768492	71056821	6NJ45-R59F7-T	0-7900-7955-0	11:10 AM	1:00 PM	5/12/2021	Tutoring
25316923	67391058	K0FW0-Y68IX-Y5B8S-3GU73-WI		9:00 AM	12:00 PM	6/10/2021	Tutoring
EMPILID	STU_EMPILID	Date_Of_Visit					
80212398	53805938	4/4/2021					
96768492	71056821	5/12/2021					
25316923	67391058	6/10/2021					
Date_Of_Visit	Time_In	Time_Out	Reason_Of_Visit				
4/4/2021	3:57 PM	17:00	Tutoring				
5/12/2021	11:10 AM	1:00 PM	Tutoring				
6/10/2021	9:00 AM	12:00 PM	Tutoring				
EMPILID	STU_EMPILID	Serial_Number		Time_In	Time_Out		
80212398	53805938	KH9OH-BKRFF-6XGV4-E1D36-OGEAM		3:57 PM	17:00		
96768492	71056821	6NJ45-R59F7-T00Z2-NSDM-MXZ1V		11:10 AM	1:00 PM		
25316923	67391058	K0FW0-Y68IX-Y5B8S-3GU73-WIOP0		9:00 AM	12:00 PM		
EMPILID	STU_EMPILID	Book_ID	Time_In	Time_Out			
		0-4507-7535-6					
80212398	53805938		3:57 PM	17:00			
96768492	71056821	0-7900-7955-0	11:10 AM	1:00 PM			
25316923	67391058	0-3492-5838-2	9:00 AM	12:00 PM			

For the Employee table, I would say this was the easiest table to Normalize out of the rest, as I could clearly separate the other parts properly. When doing the 2nd normalization it was easier for me because it was the first strong entity that I had. The others I would describe I had trouble with as it was harder for me to split them. I felt as though the way I structured my entities, there was no form of redundant data present. I had tried for the other entities but it had ended up coming out like this. The relational dependencies present were EMPILID and hours and work times while the others are present throughout the table.

Part 4: Database Implementation

Write SQL queries to create your CS Lab database. (Include all your relations for the database). Add primary keys for your relations and foreign keys where necessary.

MySQL Workbench

unconnected x MySQL Model x Local host x

File Edit View Query Database Server Tools Scripting Help

Navigator

Schemas

company
cs_lab
Tables
Views
Stored Procedures
Functions
sys

Query 1

```

6 CREATE TABLE Employee(
7     EMPID char(8) not null,
8     First_Name varchar(25) not null,
9     Last_Name varchar(25) not null,
10    Date_of_Birth date not null,
11    Address varchar(50) not null,
12    Sex char,
13    Title varchar(30) not null,
14    Email varchar(40) not null,
15    Hiring_Date date not null, Phone_Number varchar (12) not null, Weekly_Hours varchar (2) not null,
16    Hourly_Rate decimal (2, 2) not null,
17    primary key (EMPID));
18 */

```

Result Grid | Filter Rows: [] Export: [] Wrap Cell Content: []

Tables_in_cs_lab
employee

Administration Schemas Information

Schema: company

Result 3

Action Output

#	Time	Action	Message	Duration / Fetch
5	21:04:41	show tables	0 row(s) returned	0.015 sec / 0.000 sec
6	22:01:03	use CS_LAB	0 row(s) affected	0.015 sec
7	22:01:03	show tables	0 row(s) returned	0.063 sec / 0.000 sec
8	22:01:03	CREATE TABLE Employee(EMPID char(8) not null, First_Name varchar(25) not null, Last_Name varchar(25) n...)	0 row(s) affected	0.329 sec
9	22:04:50	use CS_LAB	0 row(s) affected	0.000 sec
10	22:04:50	show tables	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host x

File Edit View Query Database Server Tools Scripting Help

Navigator

Schemas

company
cs_lab
Tables
Views
Stored Procedures
Functions
sys

Query 1

```

14 Email varchar(40) not null,
15 Hiring_Date date not null, Phone_Number varchar (12) not null, Weekly_Hours varchar (2) not null,
16 Hourly_Rate decimal (2, 2) not null,
17 primary key (EMPID));
18 */

20 /*/
21 CREATE TABLE Coordinator(
22     EMPID char(8) not null,
23     primary key (EMPID));
24 */
25
26 • show tables;

```

Result Grid | Filter Rows: [] Export: [] Wrap Cell Content: []

Tables_in_cs_lab
coordinator
employee

Administration Schemas Information

Schema: cs_lab

Result 1

Action Output

#	Time	Action	Message	Duration / Fetch
1	22:23:50	use CS_LAB	0 row(s) affected	0.000 sec
2	22:23:50	show tables	2 row(s) returned	0.016 sec / 0.000 sec

Object Info Session

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS

- company
- cs_lab
- Views
- Stored Procedures
- Functions
- sys

Query 1:

```

19 /*
20  CREATE TABLE Coordinator(
21      EMPLID char(8) not null,
22      primary key (EMPLID));
23 */
24
25
26 /*
27  CREATE TABLE Tutor(
28      EMPLID char(8) not null,
29      primary key (EMPLID));
30 */
31 show tables;

```

Result Grid | Filter Rows: [] Export: [] Wrap Cell Content: []

Tables_in_cs_lab

- coordinator
- employee
- tutor

Result 2:

Action Output

Time	Action	Message	Duration / Fetch
1 22:23:50	use CS_LAB	0 row(s) affected	0.000 sec
2 22:23:50	show tables	2 row(s) returned	0.016 sec / 0.000 sec
3 22:25:18	use CS_LAB	0 row(s) affected	0.000 sec
4 22:25:18	CREATE TABLE Tutor(EMPLID char(8) not null,primary key (EMPLID))	0 row(s) affected	0.094 sec
5 22:25:52	use CS_LAB	0 row(s) affected	0.000 sec
6 22:25:52	show tables	3 row(s) returned	0.016 sec / 0.000 sec

Object Info Session

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS

- company
- cs_lab
- Tables
- Coordinator
- employee
- tutor
- Columns
- EMPILID
- Indexes
- PRIMARY
- Foreign Keys
- Triggers
- Views
- Stored Procedures
- Functions
- sys

Query 1:

```

33 CREATE TABLE Student(
34     EMPLID char(8) not null,
35     First_Name varchar(25) not null,
36     Last_Name varchar(25) not null,
37     Stu_Email varchar(40) not null,
38     Stu_Phone_Number varchar (12) not null,
39     Stu_Address varchar(50) not null,
40     Tut_EMPLID char(8) not null,
41     primary key (EMPLID),
42     foreign key(Tut_EMPLID) references Tutor(EMPLID));
43 */
44
45

```

Result Grid | Filter Rows: [] Export: [] Wrap Cell Content: []

Tables_in_cs_lab

- coordinator
- employee
- student
- tutor

Result 3:

Action Output

Time	Action	Message	Duration / Fetch
5 22:25:52	use CS_LAB	0 row(s) affected	0.000 sec
6 22:25:52	show tables	3 row(s) returned	0.016 sec / 0.000 sec
7 22:46:54	use CS_LAB	0 row(s) affected	0.000 sec
8 22:46:54	CREATE TABLE Student(EMPLID char(8) not null,First_Name varchar(25) not null,Last_Name varchar(25) not null,Stu_Email varchar(40) not null,Stu_Phone_Number varchar (12) not null,Stu_Address varchar(50) not null,Tut_EMPLID char(8) not null,primary key (EMPLID),foreign key(Tut_EMPLID) references Tutor(EMPLID))	0 row(s) affected	0.063 sec
9 22:47:24	use CS_LAB	0 row(s) affected	0.000 sec
10 22:47:24	show tables	4 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Schemas

company

cs_lab

- Tables
 - books
 - coordinator
 - employee
 - student
 - laptops
 - tutor
- Views
- Stored Procedures
- Functions

sys

Administration Schemas

Information

Table: tutor

Columns:

EMPILID char(8) PK

```

48  Name varchar(25) not null,
49  Manufacturer varchar(25) not null,
50  Stu_EMPLID char(8) not null,
51  primary key (Serial_Number),
52  foreign key(Stu_EMPLID) references Student(EMPLID);
53  /*
54
55  */
56  CREATE TABLE Books(
57  Book_ID char(20) not null,
58  Title varchar(35) not null,
59  Author varchar(50) not null,
60  Stu_EMPLID char(8) not null,
61  primary key (Book_ID),
62  foreign key(Stu_EMPLID) references Student(EMPLID));
63  /*
64
65
66
67

```

Output

Action	Time	Action	Message	Duration / Fetch
11	22:53:54	use CS_LAB	0 row(s) affected	0.000 sec
12	22:53:54	CREATE TABLE Laptops(Serial_Number char(35) not null, Name varchar(25) not null, Manufacturer v...	0 row(s) affected	0.047 sec
13	22:55:58	use CS_LAB	0 row(s) affected	0.000 sec
14	22:55:58	show tables	5 row(s) returned	0.000 sec / 0.000 sec
15	23:05:30	use CS_LAB	0 row(s) affected	0.000 sec
16	23:05:30	CREATE TABLE Books(Book_ID char(20) not null, Title varchar(35) not null, Author varchar(50) not null, Stu_EMPLID char(8) not null)	0 row(s) affected	0.047 sec

Object Info Session

SQL Additions... SQL Editor

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

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: Schemas

Company cs_lab

Tables: coordinator, employee, student, laptops, tutor

Columns: EMPILID

Indexes PRIMARY Foreign Keys Triggers

Views Stored Procedures Functions

sys

Administration Schemas

Information

Table: tutor

Columns: EMPILID char(8) PK

Query 1:

```

43  /*
44
45  */
46 CREATE TABLE Laptops(
47     Serial_Number char(35) not null,
48     Name varchar(25) not null,
49     Manufacturer varchar(25) not null,
50     Stu_EMPLID char(8) not null,
51     primary key (Serial_Number),
52     foreign key(Stu_EMPLID) references Student(EMPLID));
53 */
54
55 show tables;

```

Result Grid Filter Rows Export Wrap Cell Content

Tables_in_cs_lab

coordinator, employee, laptops, student, tutor

Result 4:

Action Output

#	Time	Action	Message	Duration / Fetch
9	22:47:24	use CS_LAB	0 row(s) affected	0.000 sec
10	22:47:24	show tables	4 row(s) returned	0.000 sec / 0.000 sec
11	22:53:54	use CS_LAB	0 row(s) affected	0.000 sec
12	22:53:54	CREATE TABLE Laptops(Serial_Number char(35) not null, Name varchar(25) not null, Manufacturer varchar(25) not null, Stu_EMPLID char(8) not null, primary key (Serial_Number), foreign key(Stu_EMPLID) references Student(EMPLID));	0 row(s) affected	0.047 sec
13	22:55:58	use CS_LAB	0 row(s) affected	0.000 sec
14	22:55:58	show tables	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: Schemas

Company cs_lab

Tables: books, coordinator, employee, laptops, student, tutor

Views Stored Procedures Functions

sys

Administration Schemas

Information

No object selected

FinalProject:

```

59 Author varchar(50) not null,
60 Stu_EMPLID char(8) not null,
61 primary key (Book_ID),
62 foreign key(Stu_EMPLID) references Student(EMPLID));
63 */

64
65 /*
66 CREATE TABLE CS_Lab (
67     EMPLID char(20) not null,
68     STU_EMPLID varchar(35) not null,
69     Serial_Number varchar(50) not null,
70     Book_ID char(8) not null,
71     Time_In varchar(4) not null,
72     Time_Out varchar(4) not null,
73     Date_Of_Visit date not null,
74     Reason_Of_Visit varchar(20) not null,
75     primary key (EMPLID, Stu_EMplid, Serial_Number, Book_Id));
76 */
77

```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
2	03:56:16	CREATE TABLE CS_Lab (EMPLID char(20) not null, STU_EMPLID varchar(35) not null, Serial_Number varc... Error Code: 1068. Multiple primary key defined	0 row(s) affected	0.062 sec
3	04:00:05	use CS_LAB	0 row(s) affected	0.000 sec
4	04:00:05	CREATE TABLE CS_Lab (EMPLID char(20) not null, STU_EMPLID varchar(35) not null, Serial_Number varc... Error Code: 1072. Key column 'Stu_EMplid' doesn't exist in table	0 row(s) affected	0.015 sec
5	04:00:19	use CS_LAB	0 row(s) affected	0.000 sec
6	04:00:19	CREATE TABLE CS_Lab (EMPLID char(20) not null, STU_EMPLID varchar(35) not null, Serial_Number varc... 0 row(s) affected	0.141 sec	

Object Info Session

Write queries that insert 5 or more records in all your relations you have created above. This means 5 records per relation.

Write simple select statements that retrieves records from the tables without any condition. (1 Select statement per table)

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: Schemas

SCHEMAS: cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

No object selected

FinalProject:

```

127 Values('80212398', 'Lukas ', 'Corvo', '1998-02-02', '7244 Riverside St.
Staten Island, NY 10314', 'M', 'Tutor', 'LukasCor2247@gmail.com', '2020-04-27',
7129738836', '40', '30');

128 */
129
130
131
132 • Insert into Employee (EMPILID, First_Name, Last_name, Date_Of_Birth
133 , Address, Sex, Title, Email, Hiring_Date, Phone_Number, Weekly_Hours, Hourly_Rate)
134 Values('74930572', 'Cynthia ', 'Garcias', '1993-04-20', '39 W. Victoria St.
Bronx, NY 10463', 'F', 'Tutor', 'Cynthia8908@gmail.com', '2018-10-08
3177663441', '35', '50.24'
135 7129738836', '40', '30');

136 3177663441', '35', '50.24');

137
138
139

```

Result Grid

EMPILID	First_Name	Last_Name	Date_Of_Birth	Address	Sex	Title	Email	Hiring_Date	Phone_Number	Weekly_Hours	Hourly_Rate
74930572	Cynthia	Garcias	1993-04-20	39 W. Victoria St. Bronx, NY 10463	F	Tutor	Cynthia8908@gmail.com	2018-10-08	3177663441	35	50.24
80212398	Lukas	Corvo	1998-02-02	7244 Riverside St. Staten Island, NY 10314	M	Tutor	LukasCor2247@gmail.com	2020-04-27	7129738836	40	30
90439111	Erick	Hinwind	1990-09-29	7116 Cemetery St. Bronx, NY 10463	M	Tutor	ErickHinwind10@gmail.com	2020-12-12	6186483923	47	27.87

Action Output

Time	Action	Message	Duration / Fetch
2 08:14:46	Select * from Employee /*CREATE TABLE Student(EMPILID char(8) not null, First_Name varchar(25) not null, Last_Name varchar(25) not null, Date_Of_Birth date not null, Address varchar(100) not null, Sex char(1) not null, Title varchar(10) not null, Email varchar(50) not null, Hiring_Date date not null, Phone_Number varchar(15) not null, Weekly_Hours int not null, Hourly_Rate float not null);	2 row(s) returned	0.000 sec / 0.000 sec
3 08:15:33	use CS_LAB	0 row(s) affected	0.000 sec
4 08:15:33	Select * from employee LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
5 08:19:40	use CS_LAB	0 row(s) affected	0.000 sec
6 08:19:40	Insert into Employee (EMPILID, First_Name, Last_name, Date_Of_Birth, Address, Sex, Title, Email, Hiring_Date, Phone_Number, Weekly_Hours, Hourly_Rate)	1 row(s) affected	0.016 sec
7 08:19:40	Select * from employee LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: Schemas

SCHEMAS: cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

No object selected

FinalProject:

```

147
148 */
149 • Insert into Employee (EMPILID, First_Name, Last_name, Date_Of_Birth
150 , Address, Sex, Title, Email, Hiring_Date, Phone_Number, Weekly_Hours, Hourly_Rate)
151 Values('25316923', 'Zion ', 'Trujillo', '1998-04-14', '9839 Inverness Ave.
Bronx, NY 10456', 'M', 'Coordinator', 'ZionTrujillo1@gmail.com', '2022-02-06
9625408787', '39', '40');

152 9625408787', '39', '40');

153 */
154
155
156
157
158 */
159 CREATE TABLE Student(

```

Result Grid

EMPILID	First_Name	Last_Name	Date_Of_Birth	Address	Sex	Title	Email	Hiring_Date	Phone_Number	Weekly_Hours	Hourly_Rate
23345673	Eleni	Arnold	1999-05-24	586 George St. Troy, NY 10590	F	Coordinator	EleniArnold109@gmail.com	2021-11-20	8898685665	30	20
25316923	Zion	Trujillo	1998-04-14	9839 Inverness Ave. Bronx, NY 10456	M	Coordinator	ZionTrujillo16@gmail.com	2022-02-06	9625408787	39	40
74930572	Cynthia	Garcias	1993-04-20	39 W. Victoria St. Bronx, NY 10463	F	Tutor	Cynthia8908@gmail.com	2018-10-08	3177663441	35	50.24
80212398	Lukas	Corvo	1998-02-02	7244 Riverside St. Staten Island, NY 10314	M	Tutor	LukasCor2247@gmail.com	2020-04-27	7129738836	40	30
90439111	Erick	Hinwind	1990-09-29	7116 Cemetery St. Bronx, NY 10463	M	Tutor	ErickHinwind10@gmail.com	2020-12-12	6186483923	47	27.87

Action Output

Time	Action	Message	Duration / Fetch
12 08:24:36	use CS_LAB	0 row(s) affected	0.000 sec
13 08:24:36	Insert into Employee (EMPILID, First_Name, Last_name, Date_Of_Birth, Address, Sex, Title, Email, Hiring_Date, Phone_Number, Weekly_Hours, Hourly_Rate)	1 row(s) affected	0.000 sec
14 08:24:36	Select * from employee LIMIT 0, 1000	4 row(s) returned	0.016 sec / 0.000 sec
15 08:29:02	use CS_LAB	0 row(s) affected	0.000 sec
16 08:29:02	Insert into Employee (EMPILID, First_Name, Last_name, Date_Of_Birth, Address, Sex, Title, Email, Hiring_Date, Phone_Number, Weekly_Hours, Hourly_Rate)	1 row(s) affected	0.000 sec
17 08:29:02	Select * from employee LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

```

152 Bronx, NY 10456', 'M', 'Coordinator', 'ZionTrujillo1@gmail.com', '2022-02-6', .
153 9625408787, '39', '40');
154 */
155
156
157 • Insert into Employee (EMPILID, First_Name, Last_name, Date_Of_Birth
158 , Address, Sex, Title, Email, Hiring_Date, Phone_Number, Weekly_Hours, Hourly_Rate)
159 Values('76849392', 'Kaveh', 'Raniero', '1989-09-25', '34 Clay Lane
160 Bronx, NY 10456', 'M', 'Coordinator', 'KavehRaniero1245@gmail.com', '2018-01-1', .
161 9146166345, '50', '55');
162
163 */
164 CREATE TABLE Student(

```

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

EMPILID	First_Name	Last_Name	Date_Of_Birth	Address	Sex	Title	Email	Hiring_Date	Phone_Number	Weekly_Hours
23345673	Eleni	Arnold	1999-05-24	586 George St. Troy, N...	F	Coordinator	ElenArnold109@gmail.com	2021-11-20	8896865665	30
25316923	Zion	Trujillo	1998-04-14	9839 Inverness Ave. Br...	M	Coordinator	ZionTrujillo16@gmail.com	2022-02-06	9625408787	39
74930572	Cynthia	Garcias	1993-04-20	39 W. Victoria St. Bron...	F	Tutor	Cynthia8908@gmail.com	2018-10-08	3177663441	35
76849392	Kaveh	Raniero	1989-09-25	34 Clay Lane Bronx, NY...	M	Coordinator	KavehRaniero1245@gmail.com	2018-01-01	9146166345	50
80212398	Lukas	Corvo	1998-02-02	7244 Riverside St. Stat...	M	Tutor	LukasCor2247@gmail.com	2020-04-27	7129738836	40

employee 6 ×

Output

Action Output

- 15 08:29:02 use CS_LAB
- 16 08:29:02 Insert into Employee (EMPILID, First_Name, Last_name, Date_Of_Birth, Address, Sex, Title, Email, Hiring..., Message: 0 row(s) affected)
- 17 08:29:02 Select * from employee LIMIT 0, 1000 5 row(s) returned
- 18 08:36:12 use CS_LAB
- 19 08:36:12 Insert into Employee (EMPILID, First_Name, Last_name, Date_Of_Birth, Address, Sex, Title, Email, Hiring..., Message: 1 row(s) affected)
- 20 08:36:12 Select * from employee LIMIT 0, 1000 6 row(s) returned

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

```

177 */
178 • Insert into Tutor (EMPILID)
179 Values ('9043911');
180 */
181
182 • Insert into Tutor (EMPILID)
183 Values ('80212398');
184
185 • Select * from tutor;
186
187
188 */
189 Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)

```

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

EMPILID
80212398
9043911
NULL

tutor 7 ×

Output

Action Output

- 18 08:36:12 use CS_LAB 0 row(s) affected
- 19 08:36:12 Insert into Employee (EMPILID, First_Name, Last_name, Date_Of_Birth, Address, Sex, Title, Email, Hiring..., Message: 1 row(s) affected)
- 20 08:36:12 Select * from employee LIMIT 0, 1000 6 row(s) returned
- 21 08:41:20 use CS_LAB 0 row(s) affected
- 22 08:41:20 Insert into Tutor(EMPILID) Values (80212398) 1 row(s) affected
- 23 08:41:20 Select * from tutor LIMIT 0, 1000 2 row(s) returned

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

Result Grid: EMPILID

```

189 •   Values ('74930572');
190 */
191
192 •   Insert into coordinator (EMPILID)
193     Values ('76849392');
194 •   Select * from coordinator;
195
196 */
197 •   /*
198 Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
199 Values('29487561', 'Lola', 'Mayflower', 'lolamay61@gmail.com', '8179049940', '308 Campfire St.
200 Bronx, NY 10458', '9043911');
201 */

```

Action Output:

Time	Action	Message	Duration / Fetch
24 08:42:55	use CS_LAB	0 row(s) affected	0.000 sec
25 08:42:55	Insert into Tutor (EMPILID) Values ('74930572')	1 row(s) affected	0.000 sec
26 08:42:55	Select * from tutor LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
27 08:45:14	use CS_LAB	0 row(s) affected	0.000 sec
28 08:45:14	Insert into coordinator (EMPILID) Values ('76849392')	1 row(s) affected	0.016 sec
29 08:45:14	Select * from coordinator LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

No object selected

Output: coordinator 9

Action Output:

Time	Action	Message	Duration / Fetch
24 08:42:55	use CS_LAB	0 row(s) affected	0.000 sec
25 08:42:55	Insert into Tutor (EMPILID) Values ('74930572')	1 row(s) affected	0.000 sec
26 08:42:55	Select * from tutor LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
27 08:45:14	use CS_LAB	0 row(s) affected	0.000 sec
28 08:45:14	Insert into coordinator (EMPILID) Values ('76849392')	1 row(s) affected	0.016 sec
29 08:45:14	Select * from coordinator LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

Result Grid: EMPILID

```

195 */
196
197
198 •   Insert into coordinator (EMPILID)
199     Values ('25316923');
200
201 •   Select * from coordinator;
202
203 */
204 Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
205 Values('29487561', 'Lola', 'Mayflower', 'lolamay61@gmail.com', '8179049940', '308 Campfire St.
206 Bronx, NY 10458', '9043911');
207 */

```

Action Output:

Time	Action	Message	Duration / Fetch
27 08:45:14	use CS_LAB	0 row(s) affected	0.000 sec
28 08:45:14	Insert into coordinator (EMPILID) Values ('25316923')	1 row(s) affected	0.016 sec
29 08:45:14	Select * from coordinator LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
30 08:47:35	use CS_LAB	0 row(s) affected	0.000 sec
31 08:47:35	Insert into coordinator (EMPILID) Values ('25316923')	1 row(s) affected	0.015 sec
32 08:47:35	Select * from coordinator LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

No object selected

Output: coordinator 10

Action Output:

Time	Action	Message	Duration / Fetch
27 08:45:14	use CS_LAB	0 row(s) affected	0.000 sec
28 08:45:14	Insert into coordinator (EMPILID) Values ('25316923')	1 row(s) affected	0.016 sec
29 08:45:14	Select * from coordinator LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
30 08:47:35	use CS_LAB	0 row(s) affected	0.000 sec
31 08:47:35	Insert into coordinator (EMPILID) Values ('25316923')	1 row(s) affected	0.015 sec
32 08:47:35	Select * from coordinator LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

SQL Editor:

```

172
173 • Insert into Employee (EMPILID, First_Name, Last_name, Date_of_Birth
174 , Address, Sex, Title, Email, Hiring_Date, Phone_Number, Weekly_Hours, Hourly_Rate)
175 Values('23452144', 'Lawali', 'Hayes', '1990-09-26', '188 Pennington St.
176 Webster, NY 14580', 'M', 'Coordinator', 'LawaliHayes@gmail.com', '2021-03-21',
177 5734286144, '45', '40');
178
179
180
181
182
183
184 */

```

Result Grid:

EMPILID	First_Name	Last_name	Date_of_Birth	Address	Sex	Title	Email	Hiring_Date	Phone_Number	Weekly_Hours
17496042	Noora	Shyam	1985-03-09	6 Old Peninsula Circle B...	F	Coordinator	NooraShyam@gmail.com	2018-05-06	3372517120	20
23345673	Eleni	Arnold	1999-05-24	586 George St. Troy, N...	F	Coordinator	EleniArnold109@gmail.com	2021-11-20	8898685665	30
23452144	Lawali	Hayes	1990-09-26	188 Pennington St. We...	M	Coordinator	LawaliHayes@gmail.com	2021-03-21	5734286144	45
25316923	Zion	Trujillo	1998-04-14	9839 Inverness Ave. Br...	M	Coordinator	ZionTrujillo16@gmail.com	2022-02-06	9625408787	39
74930572	Cynthia	Garcias	1993-04-20	39 W. Victoria St. Bron...	F	Tutor	Cynthia9908@gmail.com	2018-10-08	3177663441	35

Action Output:

- 54 09:03:00 Insert into Employee (EMPILID, First_Name, Last_name, Date_of_Birth, Address, Sex, Title, Email, Hiring_Date, Phone_Number, Weekly_Hours) Values('23452144') Message: 1 row(s) affected Duration / Fetch: 0.000 sec / 0.000 sec
- 55 09:03:00 select * from employee LIMIT 0, 1000 Message: 9 row(s) returned Duration / Fetch: 0.000 sec / 0.000 sec
- 56 09:05:25 use CS_LAB Message: 0 row(s) affected Duration / Fetch: 0.000 sec / 0.000 sec
- 57 09:05:25 DELETE FROM Employee WHERE EMPILID = '09492921' Message: 1 row(s) affected Duration / Fetch: 0.016 sec / 0.016 sec
- 58 09:05:52 use CS_LAB Message: 0 row(s) affected Duration / Fetch: 0.000 sec / 0.000 sec
- 59 09:05:52 Select * from employee LIMIT 0, 1000 Message: 8 row(s) returned Duration / Fetch: 0.000 sec / 0.000 sec

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

SQL Editor:

```

226 /*
227
228
229
230 • Insert into coordinator (EMPILID)
231 Values ('23452144');
232 • select * from coordinator;
233
234 */
235 Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
236 Values('29487561', 'Lola', 'Mayflower', 'lolamay61@gmail.com', '8179049940', '308 Campfire St.
Bronx, NY 10458', '9043911');
237
238 */

```

Result Grid:

EMPILID
23345673
23452144
25316923
76849392

Action Output:

- 59 09:05:52 Select * from employee LIMIT 0, 1000 Message: 8 row(s) returned Duration / Fetch: 0.000 sec / 0.000 sec
- 60 09:07:48 use CS_LAB Message: 0 row(s) affected Duration / Fetch: 0.000 sec / 0.000 sec
- 61 09:07:48 select * from coordinator LIMIT 0, 1000 Message: 3 row(s) returned Duration / Fetch: 0.016 sec / 0.016 sec
- 62 09:08:56 use CS_LAB Message: 0 row(s) affected Duration / Fetch: 0.000 sec / 0.000 sec
- 63 09:08:56 Insert into coordinator (EMPILID) Values (23452144) Message: 1 row(s) affected Duration / Fetch: 0.015 sec / 0.015 sec
- 64 09:08:56 select * from coordinator LIMIT 0, 1000 Message: 4 row(s) returned Duration / Fetch: 0.000 sec / 0.000 sec

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: Schemas

FinalProject

```

229 /* 
230   Insert into coordintor (EMPILID)
231   Values ('23452144');
232   select * from coordintor;
233 */
234
235 • Insert into coordintor (EMPILID)
236   Values ('17496042');
237 • select * from coordintor;
238 |
239 /*
240 Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
241 Values('20487561', 'Inla ', 'Mavflmuer', 'lnlamxv@tmail.com', '8179049946', '2AR Camfire St.
242

```

Result Grid

EMPILID
17496042
23345673
23452144
25316923
76849392
NULL

Action Output

Time	Action	Message	Duration / Fetch
62 09:08:56	use CS_LAB	0 row(s) affected	0.000 sec / 0.000 sec
63 09:08:56	Insert into coordintor (EMPILID) Values ('23452144')	1 row(s) affected	0.015 sec
64 09:08:56	select * from coordintor LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
65 09:10:43	use CS_LAB	0 row(s) affected	0.000 sec
66 09:10:43	Insert into coordintor (EMPILID) Values ('17496042')	1 row(s) affected	0.000 sec
67 09:10:43	select * from coordintor LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

No object selected

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: Schemas

FinalProject

```

136 Bronx, NY 10463', 'F', 'Tutor', 'Cynthia890@gmail.com', '2018-10-08', '
137 3177663441', '35', '50.24');
138 /*
139
140 • Insert into Employee (EMPILID, First_Name, Last_name, Date_Of_Birth
141 , Address, Sex, Title, Email, Hiring_Date, Phone_Number, Weekly_Hours, Hourly_Rate)
142 Values('28603284', 'Landulf ', 'Dexter', '1999-12-25', '7034 Newcastle Street
143 Bronx, NY 10467', 'M', 'Tutor', 'Landulf231@gmail.com', '2018-10-30',
144 6272660220, '52', '60');
145 |
146
147 • select * from employee;
148

```

Result Grid

EMPILID	First_Name	Last_Name	DateOfBirth	Address	Sex	Title	Email	HiringDate	Phone_Number	Weekly_Hours
17496042	Noora	Shyam	1985-03-09	6 Old Peninsula Circle B...	F	Coordinator	Noora.Shyam@gmail.com	2018-05-06	3372517120	20
23345673	Eleni	Arnold	1999-05-24	58 George St. Troy, N...	F	Coordinator	EleniArnold109@gmail.com	2021-11-20	8898685665	30
23452144	Lawall	Hayes	1990-09-26	188 Perrington St. We...	M	Coordinator	LawallHayes@gmail.com	2021-03-21	573428144	45
25316923	Zion	Trujillo	1998-04-14	9839 Inverness Ave. Br...	M	Coordinator	ZionTrujillo16@gmail.com	2022-02-06	9625408787	39
28603284	Landulf	Dexter	1999-12-25	7034 Newcastle Street ...	M	Tutor	Landulf231@gmail.com	2018-10-30	6272660220	52

Action Output

Time	Action	Message	Duration / Fetch
67 09:10:43	selected * from employee LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
68 09:12:36	use CS_LAB	0 row(s) affected	0.000 sec
69 09:12:36	selected * from employee LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec
70 09:15:31	use CS_LAB	0 row(s) affected	0.000 sec
71 09:15:31	Insert into Employee (EMPILID, First_Name, Last_name, DateOfBirth, Address, Sex, Title, Email, HiringDate)	1 row(s) affected	0.000 sec
72 09:15:31	selected * from employee LIMIT 0, 1000	9 row(s) returned	0.000 sec / 0.000 sec

No object selected

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

SQL Editor:

```

144 Bronx, NY 10467', 'M', 'Tutor', 'Landul123@gmail.com', '2018-10-30',
145 6272660220', '52', '60');
146 */
147
148 • Insert into Employee (EMPIID, First_Name, Last_name, Date_Of_Birth
149 , Address, Sex, Title, Email, Hiring_Date, Phone_Number, Weekly_Hours, Hourly_Rate)
150 Values('19304754', 'Jules', 'Glove', '2001-11-08', '8101 West Windfall Dr.
151 Bronx, NY 10461', 'F', 'Tutor', 'Glove1562@gmail.com', '2018-11-26',
152 4096289307, '32', '30');
153
154 • select * from employee;
155
156

```

Result Grid:

EMPIID	First_Name	Last_Name	Date_Of_Birth	Address	Sex	Title	Email	Hiring_Date	Phone_Number	Weekly_Hours
17496042	Noora	Shyam	1985-03-09	6 Old Peninsula Circle B...	F	Coordinator	Noora.Shyam@gmail.com	2018-05-06	3372517120	20
19304754	Jules	Glove	2001-11-08	8101 West Windfall Dr. ...	F	Tutor	Glove1562@gmail.com	2018-11-26	4096289307	32
23345673	Eleni	Arnold	1999-05-24	586 George St. Troy, N...	F	Coordinator	ElenArnold109@gmail.com	2021-11-20	8898686565	30
23452144	Lawall	Hayes	1990-09-26	188 Pennington St. We...	M	Coordinator	LawallHayes@gmail.com	2021-03-21	5734286144	45
25316923	Zion	Trujillo	1998-04-14	9839 Inverness Ave. Br...	M	Coordinator	ZonTrujillo16@gmail.com	2022-02-06	9625408787	39

Action Output:

#	Time	Action	Message	Duration / Fetch
70	09:15:31	use CS_LAB	0 row(s) affected	0.000 sec
71	09:15:31	Insert into Employee (EMPIID, First_Name, Last_name, Date_Of_Birth, Address, Sex, Title, Email, Hiring_D...	1 row(s) affected	0.000 sec
72	09:15:31	select * from employee LIMIT 0, 1000	9 row(s) returned	0.000 sec / 0.000 sec
73	09:22:28	use CS_LAB	0 row(s) affected	0.000 sec
74	09:22:28	Insert into Tutor (EMPIID, First_Name, Last_name, Date_Of_Birth, Address, Sex, Title, Email, Hiring_D...	1 row(s) affected	0.016 sec
75	09:22:29	select * from employee LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

SQL Editor:

```

225 /*
226 Insert into Tutor (EMPIID)
227 Values ('19304752');
228 */
229
230
231 • Insert into Tutor (EMPIID)
232 Values ('19304754');
233
234
235 • select * from Tutor;
236

```

Result Grid:

EMPIID
19304754
74930572
80212398
9043911
NULL

Action Output:

#	Time	Action	Message	Duration / Fetch
75	09:22:29	select * from employee LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
76	09:27:17	use CS_LAB	0 row(s) affected	0.000 sec
77	09:27:17	select * from Tutor LIMIT 0, 1000	3 row(s) returned	0.016 sec / 0.000 sec
78	09:27:58	use CS_LAB	0 row(s) affected	0.000 sec
79	09:27:58	Insert into Tutor (EMPIID) Values ('19304754')	1 row(s) affected	0.000 sec
80	09:27:58	select * from Tutor LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject*

Schemas: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions

sys

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

```

228 */
229
230 /*
231 Insert into Tutor (EMPILID)
232 Values ('19304754');
233 */
234
235 • Insert into Tutor (EMPILID)
236 Values ('28603284');
237
238 • select * from Tutor;
239

```

Result Grid: EMPILID

EMPILID
19304754
28603284
74930572
80212398
9043911
NULL

employee 15 employee 16 Tutor 27

Action Output:

#	Time	Action	Message	Duration / Fetch
78	09:27:58	use CS_LAB	0 row(s) affected	0.000 sec
79	09:27:58	Insert into Tutor (EMPILID) Values ('19304754')	1 row(s) affected	0.000 sec
80	09:27:58	select * from Tutor LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
81	09:29:18	use CS_LAB	0 row(s) affected	0.000 sec
82	09:29:18	Insert into Tutor (EMPILID) Values ('28603284')	1 row(s) affected	0.000 sec
83	09:29:18	select * from Tutor LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

No object selected

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject*

Schemas: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions

sys

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

```

275 */
276
277 • Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
278 Values ('96768492', 'Poppie', 'Ramsay', 'Ramsaypop012@gmail.com', '6032410754', '22 Madison Ave., Brooklyn, NY 11213', '80212398');
279
280
281 • select * from Student;
282
283 */
284 CREATE TABLE Laptops(
285 Serial_Number char(35) not null,
286 Name varchar(25) not null,
287 Manufacturer varchar(75) not null.
288

```

Result Grid: EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID

EMPILID	First_Name	Last_name	Stu_Email	Stu_Phone_Number	Stu_Address	Tut_EMPILID
2947561	Lola	Mayflower	lolamay1@gmail.com	8179049940	308 Campfire St. B...	9043911
96768492	Poppie	Ramsay	Ramsaypop012@gmail.com	6032410754	22 Madison Ave. B...	80212398
NULL	NULL	NULL	NULL	NULL	NULL	NULL

employee 15 employee 16 Student 30

Action Output:

#	Time	Action	Message	Duration / Fetch
85	09:30:10	select * from Tutor LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
86	09:30:22	use CS_LAB	0 row(s) affected	0.000 sec
87	09:30:22	select * from coordinator LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
88	09:35:23	use CS_LAB	0 row(s) affected	0.000 sec
89	09:35:23	Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_...	1 row(s) affected	0.016 sec
90	09:35:23	select * from Student LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

No object selected

Object Info Session

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

```

278 Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
279 Values('96768492', 'Poppie', 'Ramsay', 'Ramsaypop012@gmail.com', '6032410754', '22 Madison Ave.
280 Brooklyn, NY 11213', '80212398');
281 */
282
283 • Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
284 Values('67391058', 'Fern', 'Hansen', 'Fernhansen91@gmail.com', '3253566825', '8768 Oakwood Avenue
285 Fairport, NY 14450', '28603284');
286 |
287 • select * from Student;
288
289 */
290

```

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

EMPILID	First_Name	Last_Name	Stu_Email	Stu_Phone_Number	Stu_Address	Tut_EMPILID
29487561	Lola	Mayflower	lolamay1@gmail.com	8179049940	308 Campfire St. Bronx...	9043911
67391058	Fern	Hansen	Fernhansen91@gmail.com	3253566825	8768 Oakwood Avenue...	28603284
96768492	Poppie	Ramsay	Ramsaypop012@gmail.com	6032410754	22 Madison Ave. Broo...	80212398

No object selected

employee 15 employee 16 Student 31 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
88	09:35:23	use CS_LAB	0 row(s) affected	0.000 sec
89	09:35:23	Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tu...	1 row(s) affected	0.016 sec
90	09:35:23	select * from Student LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
91	09:39:58	use CS_LAB	0 row(s) affected	0.000 sec
92	09:39:58	Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tu...	1 row(s) affected	0.016 sec
93	09:39:58	select * from Student LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

```

284 Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
285 Values('67391058', 'Fern', 'Hansen', 'Fernhansen91@gmail.com', '3253566825', '8768 Oakwood Avenue
286 Fairport, NY 14450', '28603284');
287 */
288
289 • Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
290 Values('53805938', 'Omer', 'Schultz', 'Schultz156@yahoo.com', '4269415402', '310 Thomas Street
291 Bronx, NY 10468', '74930572');
292
293 • select * from Student;
294
295 */
296

```

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

EMPILID	First_Name	Last_Name	Stu_Email	Stu_Phone_Number	Stu_Address	Tut_EMPILID
29487561	Lola	Mayflower	lolamay1@gmail.com	8179049940	308 Campfire St. Bronx...	9043911
53805938	Omer	Schultz	Schultz156@yahoo.com	4269415402	310 Thomas Street Br...	74930572
67391058	Fern	Hansen	Fernhansen91@gmail.com	3253566825	8768 Oakwood Avenue...	28603284
96768492	Poppie	Ramsay	Ramsaypop012@gmail.com	6032410754	22 Madison Ave. Broo...	80212398

No object selected

employee 15 employee 16 Student 32 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
91	09:39:58	use CS_LAB	0 row(s) affected	0.000 sec
92	09:39:58	Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tu...	1 row(s) affected	0.016 sec
93	09:39:58	select * from Student LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
94	09:43:39	use CS_LAB	0 row(s) affected	0.000 sec
95	09:43:39	Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tu...	1 row(s) affected	0.015 sec
96	09:43:39	select * from Student LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

SQL Editor:

```

290 Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
291 Values('53805938', 'Omer', 'Schultz', 'Schultz156@yahoo.com', '4269415482', '310 Thomas Street
292 Bronx, NY 10468', '74930572');
293 */
294
295 • Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)
296 Values('71056821', 'Mercy', 'Pruitt', 'Mercypruitt54@gmail.com', '5786588130', '937 Myrtle Dr.
297 New York, NY 10023', '19304754');
298 |
299 • select * from Student
300
301 */
302
303
304
305
306
307

```

Result Grid:

EMPILID	First_Name	Last_Name	Stu_Email	Stu_Phone_Number	Stu_Address	Tut_EMPILID
29487561	Lola	Mayflower	lolamay1@gmail.com	8179049940	308 Campfire St. Bronx...	9043911
53805938	Omer	Schultz	Schultz156@yahoo.com	4269415402	310 Thomas Street Br...	74930572
67391058	Fern	Hansen	Fernhansen1@gmail.com	3253566825	8768 Oakwood Avenue...	28603284
71056821	Mercy	Pruitt	Mercypruitt54@gmail.com	5786588130	937 Myrtle Dr. New Yo...	19304754
95768492	Poppy	Ramsay	Ramsaypop012@gmail.com	6032410754	22 Madison Ave. Broo...	80212398
*						
employee 15						
employee 16						
Student 33						

Action Output:

#	Time	Action	Message	Duration / Fetch
94	09:43:39	use CS_LAB	0 row(s) affected	0.000 sec / 0.000 sec
95	09:43:39	Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)	1 row(s) affected	0.015 sec
96	09:43:39	select * from Student LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
97	09:47:01	use CS_LAB	0 row(s) affected	0.000 sec
98	09:47:01	Insert into Student (EMPILID, First_Name, Last_name, Stu_Email, Stu_Phone_Number, Stu_Address, Tut_EMPILID)	1 row(s) affected	0.016 sec
99	09:47:01	select * from Student LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

SQL Editor:

```

311 /*
312 Insert into Laptops (Serial_Number, Name, Manufacturer, Stu_EMPILID)
313 Values('K0FW0-BKRF6-XGV4-E1D36-0GEM', 'LG gram 15Z980', 'LG', '29487561');
314 */
315
316
317 • Insert into Laptops (Serial_Number, Name, Manufacturer, Stu_EMPILID)
318 Values('K0FW0-Y68IX-Y5B8S-3GU73-WIOP0', 'Apple MacBook Air', 'Apple', '53805938');
319
320
321
322 • select * from laptops;

```

Result Grid:

Serial_Number	Name	Manufacturer	Stu_EMPILID
K0FW0-Y68IX-Y5B8S-3GU73-WIOP0	Apple MacBook Air	Apple	53805938
K0FW0-BKRF6-XGV4-E1D36-0GEM	LG gram 15Z980	LG	29487561
*			

Action Output:

#	Time	Action	Message	Duration / Fetch
103	09:49:01	select * from laptops LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
104	09:52:02	use CS_LAB	0 row(s) affected	0.000 sec
105	09:52:02	select * from student LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
106	09:53:39	use CS_LAB	0 row(s) affected	0.000 sec
107	09:53:39	Insert into Laptops (Serial_Number, Name, Manufacturer, Stu_EMPILID...)	1 row(s) affected	0.000 sec
108	09:53:39	select * from laptops LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

Tables: books, coordinator, course, db, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

No object selected

employee 15 employee 16 laptops 39 X

Output:

```

Action Output
# Time Action Message Duration / Fetch
112 09:56:27 select * from student LIMIT 0, 1000 5 row(s) returned 0.016 sec / 0.000 sec
113 09:56:59 use CS_LAB 0 row(s) affected 0.016 sec
114 09:56:59 Insert into Laptops (Serial_Number, Name, Manufacturer, Stu_EMPLID) Values('RHCH2-BALQ-K1C7W-JLZJM-W3HRI') Error Code: 1406. Data too long for column 'Name' at row 1 0.000 sec
115 09:57:14 use CS_LAB 0 row(s) affected 0.000 sec
116 09:57:14 Insert into Laptops (Serial_Number, Name, Manufacturer, Stu_EMPLID) Values('RHCH2-BALQ-K1C7W-JLZJM-W3HRI') 1 row(s) affected 0.016 sec
117 09:57:14 select * from laptops LIMIT 0, 1000 3 row(s) returned 0.000 sec / 0.000 sec

```

Object Info Session

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

Tables: books, coordinator, course, db, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

No object selected

employee 15 employee 16 laptops 41 X

Output:

```

Action Output
# Time Action Message Duration / Fetch
117 09:57:14 select * from laptops LIMIT 0, 1000 3 row(s) returned 0.000 sec / 0.000 sec
118 09:59:38 use CS_LAB 0 row(s) affected 0.000 sec
119 09:59:38 select * from student LIMIT 0, 1000 5 row(s) returned 0.000 sec / 0.000 sec
120 10:00:19 use CS_LAB 0 row(s) affected 0.000 sec
121 10:00:19 Insert into Laptops (Serial_Number, Name, Manufacturer, Stu_EMPLID) Values('6N45-R59F7-T00Z2-INSDM-MX2IV') 1 row(s) affected 0.000 sec
122 10:00:19 select * from laptops LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

```

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

```

325
326  /*
327   Insert into Laptops (Serial_Number, Name, Manufacturer, Stu_EMPLID)
328   Values('6NJ45-R59F7-T00Z2-INSDM-MXZ1V', 'HP Spectre x360', 'HP', '71056821');
329 */
330
331
332 • Insert into Laptops (Serial_Number, Name, Manufacturer, Stu_EMPLID)
333   Values('3WIOP-ORHCH-2BALO-QK1C7-WJLZ3', 'Dell XPS 13', 'Dell', '96768492');
334
335 • select * from laptops;
336

```

Result Grid: Serial_Number Name Manufacturer Stu_EMPLID

Serial_Number	Name	Manufacturer	Stu_EMPLID
3WIOP-ORHCH-2BALO-QK1C7-WJLZ3	Dell XPS 13	Dell	96768492
6NJ45-R59F7-T00Z2-INSDM-MXZ1V	HP Spectre x360	HP	71056821
KOFW0-Y68IX-Y58BS-3GU73-WIPO	Apple MacBook Air	Apple	53805938
KH9OH-BKRF7-6XG4-E1D36-OGEAM	LG gram 15Z980	LG	29487561
RHCH2-BALOQ-K1C7W-JLZJM-W3HRI	Microsoft Surface 4	Microsoft	67391058
HULL	HULL	HULL	HULL
employee 15	employee 16	laptops 45	

Action Output:

#	Time	Action	Message	Duration / Fetch
130	10:04:18	select * from laptops LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
131	10:05:00	use CS_LAB	0 row(s) affected	0.000 sec
132	10:05:00	select * from student LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
133	10:05:28	use CS_LAB	0 row(s) affected	0.000 sec
134	10:05:28	Insert into Laptops (Serial_Number, Name, Manufacturer, Stu_EMPLID)	1 row(s) affected	0.000 sec
135	10:05:28	select * from laptops LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

```

349 /*
350   Insert into Books (Book_Id, Title, Author, Stu_EMPLID)
351   Values('0-4507-7535-6', 'Calculus, 5th Edition', 'James Stewart', '29487561');
352 */
353
354
355 • Insert into Books (Book_Id, Title, Author, Stu_EMPLID)
356   Values('0-2462-5895-0', 'Thinking in Java 4th Edition', 'Bruce Eckel', '53805938');
357
358 • select * from books;
359
360 */
361 CREATE TABLE CS_Lab (

```

Result Grid: Book_ID Title Author Stu_EMPLID

Book_ID	Title	Author	Stu_EMPLID
0-2462-5895-0	Thinking in Java 4th Edition	Bruce Eckel	53805938
0-4507-7535-6	Calculus, 5th Edition	James Stewart	29487561
HULL	HULL	HULL	HULL
employee 15	employee 16	books 47	

Action Output:

#	Time	Action	Message	Duration / Fetch
135	10:05:28	select * from laptops LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
136	10:08:40	use CS_LAB	0 row(s) affected	0.000 sec
137	10:08:40	select * from student LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
138	10:09:24	use CS_LAB	0 row(s) affected	0.000 sec
139	10:09:24	Insert into Books (Book_Id, Title, Author, Stu_EMPLID) Values('0-2462-5895-0', 'Thinking in Java 4th Edito...')	1 row(s) affected	0.015 sec
140	10:09:24	select * from books LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

- company
- cs_lab**
- Tables
 - books
 - coordinator
 - course
 - cs_lab
 - employee
 - laptops
 - student
 - tutor
- Views
- Stored Procedures
- Functions

sys

FinalProject*

```

356   Values('0-2462-5895-0', 'Thinking in Java 4th Edition', 'Bruce Eckel', '53805938');
357 */
358
359
360 • Insert into Books (Book_Id, Title, Author, Stu_EMPLID)
361   Values('0-7900-7955-0', 'Campbell Biology 12th Edition', 'Kelly Reece, Jane B. Taylor, Martha R. Mi
362
363
364
365 • select * from books;
366
367
  
```

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

Book_ID	Title	Author	Stu_EMPLID
0-2462-5895-0	Thinking in Java 4th Edition	Bruce Eckel	53805938
0-4507-7535-6	Calculus, 5th Edition	James Stewart	29487561
0-7900-7955-0	Campbell Biology 12th Edition	Kelly Reece, Jane B. Taylor, Martha R. Mi	67391058
*	NULL	NULL	NULL

No object selected

employee 15 employee 16 books 49 x

Output

Action Output

#	Time	Action	Message	Duration
140	10:09:24	select * from books LIMIT 0, 1000	2 row(s) returned	0.000 s
141	10:11:58	use CS_LAB	0 row(s) affected	0.000 s
142	10:11:58	select * from student LIMIT 0, 1000	5 row(s) returned	0.000 s
143	10:12:26	use CS_LAB	0 row(s) affected	0.000 s
144	10:12:26	Insert into Books (Book_Id, Title, Author, Stu_EMPLID) Values(0-790... <td>1 row(s) affected</td> <td>0.000 s</td>	1 row(s) affected	0.000 s
145	10:12:26	select * from books LIMIT 0, 1000	3 row(s) returned	0.000 s

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

- company
- cs_lab**
- Tables
 - books
 - coordinator
 - course
 - cs_lab
 - employee
 - laptops
 - student
 - tutor
- Views
- Stored Procedures
- Functions

sys

FinalProject*

```

356   Values('0-2462-5895-0', 'Thinking in Java 4th Edition', 'Bruce Eckel', '53805938');
357 */
358
359
360 • Insert into Books (Book_Id, Title, Author, Stu_EMPLID)
361   Values('0-8531-1346-7', 'Linear Algebra: Step by Step', 'Kuldeep Singh', '96768492');
362
363
364
365 • select * from books;
366
367
  
```

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

Book_ID	Title	Author	Stu_EMPLID
0-2462-5895-0	Thinking in Java 4th Edition	Bruce Eckel	53805938
0-4507-7535-6	Calculus, 5th Edition	James Stewart	29487561
0-7900-7955-0	Campbell Biology 12th Edition	Kelly Reece, Jane B. Taylor, Martha R. Mi	67391058
0-8531-1346-7	Linear Algebra: Step by Step	Kuldeep Singh	96768492
*	NULL	NULL	NULL

No object selected

employee 15 employee 16 books 50 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
143	10:12:26	use CS_LAB	0 row(s) affected	0.000 sec / 0.000 sec
144	10:12:26	Insert into Books (Book_Id, Title, Author, Stu_EMPLID) Values(0-7900-7955-0, 'Campbell Biology 12th Edition', 'Kelly Reece, Jane B. Taylor, Martha R. Mi', '67391058')	1 row(s) affected	0.000 sec / 0.000 sec
145	10:12:26	select * from books LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
146	10:15:10	use CS_LAB	0 row(s) affected	0.000 sec / 0.000 sec
147	10:15:10	Insert into Books (Book_Id, Title, Author, Stu_EMPLID) Values(0-8531-1346-7, 'Linear Algebra: Step by Step', 'Kuldeep Singh', '96768492')	1 row(s) affected	0.000 sec / 0.000 sec
148	10:15:10	select * from books LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

No object selected

Result Grid:

Book_ID	Title	Author	Stu_EMPLID
0-2462-5895-0	Thinking in Java 4th Edition	Bruce Eckel	53805938
0-4070-7914-9	Anatomy and Physiology	J.Gordon Betts, Peter Dessaix	71056821
0-4507-7535-6	Calculus, 5th Edition	James Stewart	29487561
0-7900-7955-0	Campbell Biology 12th Edition	Kelly Reece, Jane B. Taylor, Martha R.	67391058
0-8531-1346-7	Linear Algebra: Step by Step	Kuldeep Singh	95768492
NULL	NULL	NULL	NULL
employee 15	employee 16	books 51	

Output:

```

Action Output
# Time Action Message Duration / Fetch
146 10:15:10 use CS_LAB 0 row(s) affected 0.000 sec
147 10:15:10 Insert into Books (Book_Id, Title, Author, Stu_EMPLID) Values('0-8531-1346-7', 'Linear Algebra: Step by Step', 'Kuldeep Singh', '95768492') 1 row(s) affected 0.000 sec
148 10:15:10 select * from books LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec
149 10:18:06 use CS_LAB 0 row(s) affected 0.000 sec
150 10:18:06 Insert into Books (Book_Id, Title, Author, Stu_EMPLID) Values('0-4070-7914-9', 'Anatomy and Physiology', ' J.Gordon Betts,Peter Dessaix', '71056821') 1 row(s) affected 0.015 sec
151 10:18:06 select * from books LIMIT 0, 1000 5 row(s) returned 0.000 sec / 0.000 sec

```

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

No object selected

Result Grid:

EMPILID	STU_EMPLID	Serial_Number	Book_ID	Time_In	Time_Out	Date_Of_Visit	Reason_Of_Visit
74930572	71056821	KOPFW-Y68DX-Y5B8S-3GU73-WIOP0	0790079550	3:00	6:15	2022-10-03	Tutoring
80212398	29487561	KH9OH-BKRF-6XGV4EID36-OGEAM	0450775356	3:57	5:00	2022-04-04	Tutoring
9043911	53805938	6N44S-R59F7-T00Z2-INSDM-MX21	0246258950	1:00	2:00	2022-05-01	Tutoring
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
employee 15	employee 16	cs_lab 53					

Output:

```

Action Output
# Time Action Message Duration / Fetch
152 10:23:56 use CS_LAB 0 row(s) affected 0.000 sec
153 10:23:56 Insert into cs_lab (EMPILID, STU_Empilid, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Reason_of_Visit) Values('74930572', '71056821', 'KOPFW-Y68DX-Y5B8S-3GU73-WIOP0', '0790079550', '3:00', '6:15', '2022-10-03', 'Tutoring') 1 row(s) affected 0.001 sec
154 10:23:56 select * from cs_lab LIMIT 0, 1000 2 row(s) returned 0.000 sec / 0.000 sec
155 10:30:58 use CS_LAB 0 row(s) affected 0.000 sec
156 10:30:58 Insert into cs_lab (EMPILID, STU_Empilid, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Reason_of_Visit) Values('80212398', '29487561', 'KH9OH-BKRF-6XGV4EID36-OGEAM', '0450775356', '3:57', '5:00', '2022-04-04', 'Tutoring') 1 row(s) affected 0.000 sec
157 10:30:58 select * from cs_lab LIMIT 0, 1000 3 row(s) returned 0.000 sec / 0.000 sec

```

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

No object selected

Information: employee 15, employee 16, cs_lab 54

Action Output:

```

# Time Action Message
155 10:30:58 use CS_LAB 0 row(s) affected
156 10:30:58 Insert into cs_lab (EMPILID, STU_Empilid, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Reason_Of_Visit) Values('25316923', '67391058', 'RHCH2-BALOQ-K1C7W-JLZJM-W3R1', '0853113467', '1:45', '3:00', '2022-12-15', 'Counseling') 1 row(s) affected
157 10:30:58 select * from cs_lab LIMIT 0, 1000 3 row(s) returned
158 10:35:02 use CS_LAB 0 row(s) affected
159 10:35:02 Insert into cs_lab (EMPILID, STU_Empilid, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Reason_Of_Visit) Values('23345673', '96768492', '3W1OP-ORHCH-2BALO-QK1C7-WJLZJ', '0407079149', '2:30', '3:30', '2022-01-02', 'Counseling') 1 row(s) affected
160 10:35:02 select * from cs_lab LIMIT 0, 1000 4 row(s) returned

```

Result Grid: EMPILID, STU_Empilid, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Reason_Of_Visit

EMPILID	STU_Empilid	Serial_Number	Book_ID	Time_In	Time_Out	Date_Of_Visit	Reason_Of_Visit
25316923	67391058	RHCH2-BALOQ-K1C7W-JLZJM-W3R1	0853113467	1:45	3:00	2022-12-15	Counseling
74930572	71056821	KOFW0-Y6BX-Y8B8S-3GU73-WIOP0	0790079550	3:00	6:15	2022-10-03	Tutoring
80212398	29487561	KH9OH-BKRF-6XGV4-E1D36-OGEAM	0450775356	3:57	5:00	2022-04-04	Tutoring
9043911	53805938	6N45-R59F7-T0022-NSDM-MX21V	0246258950	1:00	2:00	2022-05-01	Tutoring
...

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

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee, laptops, student, tutor

Views, Stored Procedures, Functions, sys

No object selected

Information: employee 15, employee 16, cs_lab 55

Action Output:

```

# Time Action Message
158 10:35:02 use CS_LAB 0 row(s) affected
159 10:35:02 Insert into cs_lab (EMPILID, STU_Empilid, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Reason_Of_Visit) Values('25316923', '67391058', 'RHCH2-BALOQ-K1C7W-JLZJM-W3R1', '0853113467', '1:45', '3:00', '2022-12-15', 'Counseling') 1 row(s) affected
160 10:35:02 select * from cs_lab LIMIT 0, 1000 4 row(s) returned
161 10:42:42 use CS_LAB 0 row(s) affected
162 10:42:42 Insert into cs_lab (EMPILID, STU_Empilid, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Reason_Of_Visit) Values('23345673', '96768492', '3W1OP-ORHCH-2BALO-QK1C7-WJLZJ', '0407079149', '2:30', '3:30', '2022-01-02', 'Counseling') 1 row(s) affected
163 10:42:42 select * from cs_lab LIMIT 0, 1000 5 row(s) returned

```

Result Grid: EMPILID, STU_Empilid, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Reason_Of_Visit

EMPILID	STU_Empilid	Serial_Number	Book_ID	Time_In	Time_Out	Date_Of_Visit	Reason_Of_Visit
23345673	96768492	3W1OP-ORHCH-2BALO-QK1C7-WJLZJ	0407079149	2:30	3:30	2022-01-02	Counseling
25316923	67391058	RHCH2-BALOQ-K1C7W-JLZJM-W3R1	0853113467	1:45	3:00	2022-12-15	Counseling
74930572	71056821	KOFW0-Y6BX-Y8B8S-3GU73-WIOP0	0790079550	3:00	6:15	2022-10-03	Tutoring
80212398	29487561	KH9OH-BKRF-6XGV4-E1D36-OGEAM	0450775356	3:57	5:00	2022-04-04	Tutoring
9043911	53805938	6N45-R59F7-T0022-NSDM-MX21V	0246258950	1:00	2:00	2022-05-01	Tutoring
...

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

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

```

473 /*
474
475     Insert into course (Emp_EmpId, Course_name, Description_of_Course, Credit, Hours, Title)
476     Values('23452144', 'CMP 168', 'Programming Methods 2','4', '2', 'Tutor');
477
478 */
479
480 /*
481     Insert into course (Emp_EmpId, Course_name, Description_of_Course, Credit, Hours, Title)
482     Values('28683284', 'CMP 232', 'Discrete Mathematics','4', '2', 'Coordinator');
483 */
484
485 • select * from course;
    
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: | Result Grid | Context Help | Snippets

Emp_EmpId	Course_name	Description_of_Course	Credit	Hours	Title
17496042	CMP 338	Data Structures and Algorithms	4	2	Tutor
19304754	MAT 313	Elements of Linear Algebra	4	2	Tutor
23345673	CMP 167	Programming Methods 1	4	2	Coordinator
23452144	CMP 168	Programming Methods 2	4	2	Tutor
28603284	CMP 232	Discrete Mathematics	4	2	Coordinator
employee 15	employee 16	course 62			

Output

Action Output

#	Time	Action	Message	Duration / Fetch
191	11:20:52	Insert into course (Emp_EmpId, Course_name, Description_of_Course, Credit, Hours, Title) Values('23452144', 'CMP 168', 'Programming Methods 2','4', '2', 'Tutor');	1 row(s) affected	0.016 sec
192	11:21:49	use CS_LAB	0 row(s) affected	0.000 sec
193	11:21:49	Insert into course (Emp_EmpId, Course_name, Description_of_Course, Credit, Hours, Title) Values('28683284', 'CMP 232', 'Discrete Mathematics','4', '2', 'Coordinator');	1 row(s) affected	0.015 sec
194	11:22:21	use CS_LAB	0 row(s) affected	0.000 sec
195	11:22:39	use CS_LAB	0 row(s) affected	0.000 sec
196	11:22:39	select * from course LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Write 1 simple select statements that retrieve records from all the tables using some simple condition. (1 Select statement per table)

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

```

463 /*
464     Insert into cs_lab (EMPILID, STU_EmpId, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Reason_Of_Visit)
465     Values('23345673', '96768492', '3WIOP-ORHCH-2BALO-QK1C7-WDLZ', '0407079149', '2:30', '3:30', '2022-01-2', 'Counseling');
466 */
467
468 /*
469     Write 1 simple select statements that retrieve records from all the tables using some simple condition. (1 Select statement per table)
470 */
471
472 • select * from employee where First_Name = 'Erick';
473
474
    
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: | Result Grid | Context Help | Snippets

EMPILID	First_Name	Last_Name	DateOfBirth	Address	Sex	Title	Email	HiringDate	Phone_Number	Weekly_Hours	Hourly_Rate
9043911	Erick	Highwind	1990-09-29	7116 Cemetery St ...	M	Tutor	ErickHighwind10@gmail.com	2020-12-12	6186-483923	47	27.87
employee 15	employee 16	employee 56									

Output

Action Output

#	Time	Action	Message	Duration / Fetch
160	10:35:02	select * from cs_lab LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
161	10:42:42	use CS_LAB	0 row(s) affected	0.000 sec
162	10:42:42	Insert into cs_lab (EMPILID, STU_EmpId, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Reason_Of_Visit)	1 row(s) affected	0.000 sec
163	10:42:42	select * from cs_lab LIMIT 0, 1000	5 row(s) returned	0.016 sec / 0.000 sec
164	10:47:49	use CS_LAB	0 row(s) affected	0.000 sec
165	10:47:49	select * from employee where First_Name = 'Erick' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Navigator... Schemas

FinalProject

```

407 /*
408  * Write 1 simple select statements that retrieve records from all the tables using some simple condition. (1 Select statement per table)
409 */
410
411 /*
412  * select * from employee where First_Name = 'Erick';
413 */
414
415
416 • select * from coordintor where Emplid = '23452144';
417
418

```

Result Grid | Filter Rows: | Edits: | Export/Import: | Wrap Cell Content: | Result Grid | Form Editor | Context Help | Snippets

EMPID
23452144
NULL

Action Output

#	Time	Action	Message	Duration / Fetch
162	10:42:42	Insert into cs_lab (EMPLID, STU_Emplid, Serial_Number, Book_ID, Time_In, Time_Out, Date_Of_Visit, Re...	1 row(s) affected	0.000 sec
163	10:42:42	select * from cs_lab LIMIT 0, 1000	5 row(s) returned	0.016 sec / 0.000 sec
164	10:47:49	use CS_LAB	0 row(s) affected	0.000 sec
165	10:47:49	select * from employee where First_Name = 'Erick' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
166	10:51:46	use CS_LAB	0 row(s) affected	0.000 sec
167	10:51:46	select * from coordintor where Emplid = '23452144' LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
168	10:53:59	use CS_LAB	0 row(s) affected	0.000 sec
169	10:53:59	select * from tutor where EMPLID = '28603284' LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec

No object selected

employee 15 employee 16 coordintor 57 x

Output

Object Info Session

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Navigator... Schemas

FinalProject

```

410 /*
411
412  */
413 select * from employee where First_Name = 'Erick';
414 /*
415
416 */
417 • select * from coordintor where Emplid = '23452144';
418 */
419
420 • select * from tutor where EMPLID = '28603284';
421

```

Result Grid | Filter Rows: | Edits: | Export/Import: | Wrap Cell Content: | Result Grid | Form Editor | Context Help | Snippets

EMPID
28603284
NULL

Action Output

#	Time	Action	Message	Duration / Fetch
164	10:47:49	use CS_LAB	0 row(s) affected	0.000 sec
165	10:47:49	select * from employee where First_Name = 'Erick' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
166	10:51:46	use CS_LAB	0 row(s) affected	0.000 sec
167	10:51:46	select * from coordintor where Emplid = '23452144' LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
168	10:53:59	use CS_LAB	0 row(s) affected	0.000 sec
169	10:53:59	select * from tutor where EMPLID = '28603284' LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec

No object selected

employee 15 employee 16 tutor 58 x

Output

Object Info Session

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Navigator... Schemas

SCHEMAS
company
cx_lab
Tables
books
coordinator
course
cs_lab
employee
laptops
student
tutor
Views
Stored Procedures
Functions
sys

FinalProject

```

414 /*
415 */
416 /**
417 select * from coordinator where EmpId = '23452144';
418 */
419
420 /**
421 select * from tutor where EMPILID = '28603284';
422 */
423
424 select * from student where stu_address = '310 Thomas Street
425 Bronx, NY 10468' ;
426

```

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

EMPILID	Fst_Name	Last_Name	Stu_Email	Stu_Phone_Number	Stu_Address	Tut_EMPILID
53805938	Omer	Schultz	Schultz156@yahoo.com	4269415402	310 Thomas Street Bronx, NY 10468	74930572

No object selected

employee 15 employee 16 student 59 x

Output

Action Output

Time	Action	Message	Duration / Fetch
170 10:56:29	use CS_LAB	0 row(s) affected	0.000 sec
171 10:56:29	select * from student where address = '310 Thomas Street Bronx, NY 10468' LIMIT 0, 1000	Error Code: 1054. Unknown column 'address' in 'where clause'	0.015 sec
172 10:56:44	use CS_LAB	0 row(s) affected	0.000 sec
173 10:56:44	select * from student where address = '310 Thomas Street Bronx, NY 10468' LIMIT 0, 1000	Error Code: 1054. Unknown column 'address' in 'where clause'	0.000 sec
174 10:57:54	use CS_LAB	0 row(s) affected	0.000 sec
175 10:57:54	select * from student where stu_address = '310 Thomas Street Bronx, NY 10468' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Navigator... Schemas

SCHEMAS
company
cx_lab
Tables
books
coordinator
course
cs_lab
employee
laptops
student
tutor
Views
Stored Procedures
Functions
sys

FinalProject

```

450 select * from tutor where EMPILID = '28603284';
451 /*
452 */
453 /**
454 select * from student where stu_address = '310 Thomas Street
455 Bronx, NY 10468' ;
456 */
457
458 select * from course where Title = 'Tutor' ;
459
460
461
462

```

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

Emp_EmpId	Course_name	Description_of_Course	Credit	Hours	Title
17496042	CMP 338	Data Structures and Algorithms	4	2	Tutor
19304754	MAT 313	Elements of Linear Algebra	4	2	Tutor
23452144	CMP 168	Programming Methods 2	4	2	Tutor

No object selected

employee 15 employee 16 course 63 x

Output

Action Output

Time	Action	Message	Duration / Fetch
193 11:21:49	Insert into course (Emp_EmpId, Course_name, Description_of_Course, Credit, Hours, Title) Values(28603284, 'Tutor', 'Tutor', 0, 0, 'Tutor')	1 row(s) affected	0.015 sec
194 11:22:21	use CS_LAB	0 row(s) affected	0.000 sec
195 11:22:39	use CS_LAB	0 row(s) affected	0.000 sec
196 11:22:39	select * from course LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
197 11:27:04	use CS_LAB	0 row(s) affected	0.000 sec
198 11:27:04	select * from course where Title = 'Tutor' LIMIT 0, 1000	3 row(s) returned	0.015 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

```

453 /**
454     select * from student where stu_address = '310 Thomas Street
455 Bronx, NY 10468' ;
456 */
457
458 /**
459     select * from course where Title = 'Tutor';
460 */
461
462 •   select * from laptops where manufacturer = 'Apple';|
```

Administration Schemas Information

No object selected

employee 15 employee 16 laptops 64 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
195	11:22:39	use CS_LAB	0 row(s) affected	0.000 sec
196	11:22:39	select * from course LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
197	11:27:04	use CS_LAB	0 row(s) affected	0.000 sec
198	11:27:04	select * from course where Title = 'Tutor' LIMIT 0, 1000	3 row(s) returned	0.015 sec / 0.000 sec
199	11:29:10	use CS_LAB	0 row(s) affected	0.000 sec
200	11:29:10	select * from laptops where manufacturer = 'Apple' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host X

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

```

460 /**
461
462 /**
463 select * from laptops where manufacturer = 'Apple';
464 */
465
466 •   select * from books where Author = 'James Stewart';|
```

Administration Schemas Information

Table: books

Columns:

Book_ID	Title	Author	Stu_EMPLID
0-4507-7535-6	Calculus, 5th Edition	James Stewart	29487561

employee 15 employee 16 books 65 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
197	11:27:04	use CS_LAB	0 row(s) affected	0.000 sec
198	11:27:04	select * from course where Title = 'Tutor' LIMIT 0, 1000	3 row(s) returned	0.015 sec / 0.000 sec
199	11:29:10	use CS_LAB	0 row(s) affected	0.000 sec
200	11:29:10	select * from laptops where manufacturer = 'Apple' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
201	11:31:42	use CS_LAB	0 row(s) affected	0.000 sec
202	11:31:42	select * from books where Author = 'James Stewart' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab

Columns: Book_ID, Title, Author, Stu_EmpID

Indexes, Foreign Keys, Triggers

Administration: Schemas

Information: Object Info, Session

Table: books

Columns: Book_ID, Title, Author, Stu_EmpID

Action Output:

```

464 /*
465
466    select * from books where Author = 'James Stewart';
467 */
468
469
470 select * from cs_lab where Time_In = '1:00';
471
472
473
474
475
476

```

Result Grid:

EMPID	STU_EMPID	Serial_Number	Book_Id	Time_In	Time_Out	Date_of_Vist	Reason_of_Vist
9043911	NULL	GN45-R59F7-T00Z2-NSDM-MXIV	0246258950	1:00	2:00	2022-05-01	Tutoring

employee 15 employee 16 cs_lab 66 x

Output:

```

Action Output
# Time Action Message Duration / Fetch
199 11:29:10 use CS_LAB 0 row(s) affected 0.000 sec
200 11:29:10 select * from laptops where manufacturer = 'Apple' LIMIT 0, 1000 1 row(s) returned 0.000 sec / 0.000 sec
201 11:31:42 use CS_LAB 0 row(s) affected 0.000 sec
202 11:31:42 select * from books where Author = 'James Stewart' LIMIT 0, 1000 1 row(s) returned 0.000 sec / 0.000 sec
203 11:33:54 use CS_LAB 0 row(s) affected 0.000 sec
204 11:33:54 select * from cs_lab where Time_In = '1:00' LIMIT 0, 1000 1 row(s) returned 0.015 sec / 0.000 sec

```

Write 2 advanced select statements that select data from two or more of your tables. You can use exists, and, join, etc.

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: company, cs_lab

Tables: books, coordinator, course, cs_lab, employee

Columns: Emp_EmpId, Course_name, Description_of_Course, Credit, Hours, Title

Indexes, Foreign Keys, Triggers

Administration: Schemas

Information: Object Info, Session

Table: course

Columns: Emp_EmpId, Course_name, Description_of_Course, Credit, Hours, Title

Action Output:

```

466 /*
467 select * from books where Author = 'James Stewart';
468 */
469
470 /*
471 select * from cs_lab where Time_In = '1:00';
472 */
473
474 /*
475 Write 2 advanced select statements that select data from two or more of your tables. You can use exists, and, join, etc.
476 */
477
478 Select * From course where Credit = '4' AND Title = 'Tutor';

```

Result Grid:

Emp_EmpId	Course_name	Description_of_Course	Credit	Hours	Title
17496042	CMP 338	Data Structures and Algorithms	4	2	Tutor
19304754	MAT 313	Elements of Linear Algebra	4	2	Tutor
23452144	CMP 168	Programming Methods 2	4	2	Tutor

employee 15 employee 16 course 69 x

Output:

```

Action Output
# Time Action Message Duration / Fetch
207 11:46:50 use CS_LAB 0 row(s) affected 0.000 sec
208 11:46:50 Select * From employee where Credit = '4' OR Title = 'Tutor' LIMIT 0, 1000 Error Code: 1054. Unknown column 'Credit' in 'where clause' 0.000 sec
209 11:47:20 use CS_LAB 0 row(s) affected 0.000 sec
210 11:47:20 Select * From course where Credit = '4' OR Title = 'Tutor' LIMIT 0, 1000 5 row(s) returned 0.000 sec / 0.000 sec
211 11:47:32 use CS_LAB 0 row(s) affected 0.000 sec
212 11:47:32 Select * From course where Credit = '4' AND Title = 'Tutor' LIMIT 0, 1000 3 row(s) returned 0.000 sec / 0.000 sec

```

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

Tables: employee

```

471 select * from cs_lab where Time_In = '1:00';
472 /*
473 */
474 /* Write 2 advanced select statements that select data from two or more of your tables. You can use exists, and, join, etc.
475 */
476 /*
477 */
478 /* Select * From course where Credit = '4' AND Title = 'Tutor';
479 */
480 /*
481 */
482 • SELECT EmpId FROM cs_lab WHERE EXISTS (SELECT EmpId FROM employee WHERE EmpId = '25316923');
483

```

Result Grid:

EmpId
23345673
25316923
74930572
80212398
9045911

Output:

Action	Time	Action	Message	Duration / Fetch
211	11:47:32	use CS_LAB	0 row(s) affected	0.000 sec
212	11:47:32	Select * From course where Credit = '4' AND Title = 'Tutor' LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
213	12:07:06	use CS_LAB	0 row(s) affected	0.000 sec
214	12:07:06	SELECT EmpId FROM cs_lab WHERE EXISTS (SELECT EmpId FROM employee WHERE EmpId = '25316923')	Error Code: 1054. Unknown column 'EMPILID' in 'where clause'	0.000 sec
215	12:07:24	use CS_LAB	0 row(s) affected	0.000 sec
216	12:07:24	SELECT EmpId FROM cs_lab WHERE EXISTS (SELECT EmpId FROM employee WHERE EmpId = '25316923')	5 row(s) returned	0.000 sec / 0.000 sec

Write a query that retrieves students who have visited the CS Lab more than others.

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator: FinalProject

SCHEMAS: cs_lab

Tables: cs_lab

```

480 /*
481 */
482 • /* SELECT EmpId FROM cs_lab WHERE EXISTS (SELECT EmpId FROM employee WHERE EmpId = '25316923');
483 */
484 /*
485 */
486 /* Write a query that retrieves students who have visited the CS Lab more than others.
487 */
488 /*
489 */
490 • Select * from cs_lab where time_in > '1:00' AND time_out < '6:00';
491
492

```

Result Grid:

EMPILID	STU_EMPLID	Serial_Number	Book_Id	Time_In	Time_Out	Date_of_Vist	Reason_of_Vist
23345673	96768492	3W1OP-ORHCH-2BALO-QK1C7-WJLZ	0407079149	2:30	3:30	2022-01-02	Counseling
25316923	67391058	RHC12-BALOQ-K1C7W-JLZM-W3R1	0853113467	1:45	3:00	2022-12-15	Counseling
80212398	29487561	KH9OH-BK0FF-6XGV4-E1D36-OEAM	0450775356	3:57	5:00	2022-04-04	Tutoring
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Output:

Action	Time	Action	Message	Duration / Fetch
217	12:24:18	use CS_LAB	0 row(s) affected	0.000 sec
218	12:24:18	Select * from cs_lab where time_in > '1:00' LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
219	12:24:43	use CS_LAB	0 row(s) affected	0.000 sec
220	12:24:43	Select * from cs_lab where time_in > '6:00' LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
221	12:25:14	use CS_LAB	0 row(s) affected	0.000 sec
222	12:25:14	Select * from cs_lab where time_in > '1:00' AND time_out < '6:00' LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Write a query that retrieves tutors who get paid more than any other tutor per hour

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator

FinalProject

```

493 /*
494  * Write a query that retrieves tutors who get paid more than any other tutor per hour
495 */
496
497
498
499 • SELECT first_name, last_name, Hourly_Rate FROM employee
500 WHERE Title = "Tutor" AND Hourly_Rate = (SELECT MAX(Hourly_Rate) FROM employee);
501
502
503 /*
504  * Write a query that retrieves tutors who get lowest hourly rate pay.
505 */

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Read Only | Context Help | Snippets

first_name	last_name	Hourly_Rate
Landulf	Dexter	60

Action Output

#	Time	Action	Message	Duration / Fetch
243	12:52:20	use CS_LAB	0 row(s) affected	0.000 sec
244	12:52:21	Select AVG(hourly_rate) from employee LIMIT 0, 1000	Error Code: 1305. FUNCTION cs_lab.AVERAGE does not exist	0.109 sec
245	12:52:38	use CS_LAB	0 row(s) affected	0.000 sec
246	12:52:38	Select AVG(hourly_rate) from employee LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
247	12:56:46	use CS_LAB	0 row(s) affected	0.000 sec
248	12:56:46	SELECT first_name, last_name, Hourly_Rate FROM employee WHERE Title = 'Tutor' AND Hourly_Rate ...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Write a query that retrieves tutors who get the lowest hourly rate pay.

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator

FinalProject

```

502
503 /*
504  * Write a query that retrieves tutors who get lowest hourly rate pay.
505 */
506
507
508 • SELECT first_name, last_name, Hourly_Rate FROM employee
509 WHERE title = 'tutor' AND Hourly_Rate = (SELECT MIN(Hourly_Rate) FROM employee);
510
511
512 /*
513  * Write a query that calculates and retrieves the average hourly rate of all tutors.
514 */

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Read Only | Context Help | Snippets

first_name	last_name	Hourly_Rate

Action Output

#	Time	Action	Message	Duration / Fetch
253	13:00:21	use CS_LAB	0 row(s) affected	0.000 sec
254	13:00:21	SELECT first_name, last_name, Hourly_Rate FROM employee WHERE Hourly_Rate = (SELECT MIN(H...)	1 row(s) returned	0.000 sec / 0.000 sec
255	13:00:28	use CS_LAB	0 row(s) affected	0.000 sec
256	13:00:28	SELECT first_name, last_name, Hourly_Rate, title FROM employee WHERE Hourly_Rate = (SELECT MI...	1 row(s) returned	0.000 sec / 0.000 sec
257	13:01:04	use CS_LAB	0 row(s) affected	0.000 sec
258	13:01:04	SELECT first_name, last_name, Hourly_Rate FROM employee WHERE title = 'tutor' AND Hourly_Rate ...	0 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Write a query that calculates and retrieves the average hourly rate of all tutors.

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

FinalProject

```

508     SELECT first_name, last_name, Hourly_Rate FROM employee
509     WHERE title = 'tutor' AND Hourly_Rate = (SELECT MIN(Hourly_Rate) FROM employee);
510   /*
511   */
512   /*
513   Write a query that calculates and retrieves the average hourly rate of all tutors.
514   */
515
516
517 • Select AVG(hourly_rate) from employee where title = 'Tutor';
518
519
520

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid | Form Editor | Read Only | Context Help | Snippets

Table: employee

Columns:

EMPID	First_Name	Last_Name	DateOfBirth	Address	Sex	Title	Email	HiringDate	Phone_Number	Weekly_Hours	Hourly_Rate
17496042	Noora	Shyam	1985-03-09	6 Old Peninsula Circle B...	F	Coordinator	Noora.Shv@gmail.com	2018-05-06	3972517120	20	
18304754	Jules	Giova	2001-11-08	501 West Windfall Dr...	F	Tutor	Giove1563@gmail.com	2018-11-26	4996389307	32	
23345673	Berni	Arnold	1999-05-24	506 George St. Troy, N...	F	Coordinator	BerniArnold129@gmail.com	2021-11-20	89996835665	30	
23452144	Shirley	Polanco	1980-09-26	188 Pennington St. We...	M	Coordinator	LawrieHayes@gmail.com	2021-03-21	5794286144	45	

Object Info Session

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid | Form Editor | Read Only | Context Help | Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
255	13:00:28	use CS_LAB	0 row(s) affected	0.000 sec
256	13:00:28	SELECT first_name, last_name, Hourly_Rate, title FROM employee WHERE Hourly_Rate = (SELECT MIN(Hourly_Rate) FROM employee);	1 row(s) returned	0.000 sec / 0.000 sec
257	13:01:04	use CS_LAB	0 row(s) affected	0.000 sec
258	13:01:04	SELECT first_name, last_name, Hourly_Rate FROM employee WHERE title = 'tutor' AND Hourly_Rate = (SELECT MIN(Hourly_Rate) FROM employee);	0 row(s) returned	0.000 sec / 0.000 sec
259	13:01:58	use CS_LAB	0 row(s) affected	0.000 sec
260	13:01:58	Select AVG(hourly_rate) from employee where title = 'Tutor' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Write 3 update statements that update certain records based on some conditions

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

FinalProject

```

519
520 /*
521 Write 3 update statements that update certain records based on some conditions
522 */
523
524
525 • update employee
526 Set First_name = 'Shirley', Last_Name = 'Polanco' where Empid = '23452144';
527
528
529 • Select * from employee;
530
531

```

Table: employee

Columns:

EMPID	First_Name	Last_Name	DateOfBirth	Address	Sex	Title	Email	HiringDate	Phone_Number	Weekly_Hours	Hourly_Rate
17496042	Noora	Shyam	1985-03-09	6 Old Peninsula Circle B...	F	Coordinator	Noora.Shv@gmail.com	2018-05-06	3972517120	20	
18304754	Jules	Giova	2001-11-08	501 West Windfall Dr...	F	Tutor	Giove1563@gmail.com	2018-11-26	4996389307	32	
23345673	Berni	Arnold	1999-05-24	506 George St. Troy, N...	F	Coordinator	BerniArnold129@gmail.com	2021-11-20	89996835665	30	
23452144	Shirley	Polanco	1980-09-26	188 Pennington St. We...	M	Coordinator	LawrieHayes@gmail.com	2021-03-21	5794286144	45	

Object Info Session

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result Grid | Form Editor | Read Only | Context Help | Snippets

Action Output

#	Time	Action	Message	Duration / Fetch
259	13:01:58	use CS_LAB	0 row(s) affected	0.000 sec
260	13:01:58	Select AVG(hourly_rate) from employee where title = 'Tutor' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
261	13:07:52	use CS_LAB	0 row(s) affected	0.000 sec
262	13:07:52	update employee Set First_name = 'Shirley', Last_Name = 'Polanco' where Empid = '23452144'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
263	13:08:47	use CS_LAB	0 row(s) affected	0.000 sec
264	13:08:47	Select * from employee LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

- company
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- course
- cs_lab
- employee
- laptops
- student
- tutor
- Views
- Stored Procedures
- Functions

Administration Schemas

Information

Table: books

Columns:

Book_ID	char(20) PK
Title	varchar(35)
Author	varchar(50)
Stu_EMPLID	char(8)

Output

```

523
524 /* update employee
525 Set First_name = 'Shirley', Last_Name = 'Polanco' where Empid = '23452144';
526
527 */
528
529 /*
530 update books
531 Set Title = 'World Cook Book' where Stu_EMPLID = '71056821';
532 */
533
534 • select * from books;
535

```

Result Grid

Book_ID	Title	Author	Stu_EMPLID
0-246-2-5995-0	Thinking in Java 4th Edition	Bruce Eckel	53805938
0-407-0-7014-9	World Cook Book	J.Gordon Betts,Peter Desai	71056821
0-450-7-7535-6	Calculus, 5th Edition	James Stewart	29487561
0-7900-7955-0	Campbell Biology 12th Edition	Kelly Reece, Jane B. Taylor, Martha R.	67391058
0-8521-1346-7	Linear Algebra: Step by Step	Kuldeep Singh	96768492
employee 15	employee 16	books 93	

Action Output

#	Time	Action	Message	Duration / Fetch
273	13:13:46	use CS_LAB	0 row(s) affected	0.000 sec
274	13:13:46	update employee Set First_name = 'Shirley', Last_Name = 'Polanco' where Empid = '23452144';	Error Code: 1175. You are using safe update mode and you tried to update a table without a WHERE clause. Row 1 changed. 1 warnings: 0	0.016 sec
275	13:15:05	use CS_LAB	0 row(s) affected	0.000 sec
276	13:15:05	update books Set Title = 'World Cook Book' where Stu_EMPLID = '71056821'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.031 sec
277	13:15:27	use CS_LAB	0 row(s) affected	0.000 sec
278	13:15:27	select * from books LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local host

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

- company
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Administration Schemas

Information

Table: course

Columns:

Emp_EmpId	char(20) PK
Course_name	varchar(15)
Description_of_Course	varchar(30)
Credit	int
Hours	int
Title	varchar(30)

Output

```

531 Set Title = 'World Cook Book' where Stu_EMPLID = '71056821';
532 /*
533
534 /*
535 update course
536 Set course_name = 'ENG 152', Description_of_course = 'English composition' where emp_EmpId = '23345673'
537 AND Description_of_course = 'Programming methods 1';
538 */
539
540 • select * from course;
541
542
543

```

Result Grid

EMPID	First_Name	Last_Name	DateOfBirth	Address	Sex	Title	Email	Hiring_Date	Phone_Number	Weekly_Hrs
09482921	Noora	Shyam	1985-03-09	6 Old Peninsula Circle B.	F	Coordinator	Noora.Shyam@gmail.com	2018-05-06	3372517120	20
23345673	Eleni	Arnold	1999-05-24	586 George St. Troy, N.	F	Coordinator	EleniArnold109@gmail.com	2021-11-20	8898685665	30
25316923	Zon	Trujillo	1998-04-14	9839 Inverness Ave. Br...	M	Coordinator	ZonTrujillo16@gmail.com	2022-02-06	9625408787	39
74930572	Cynthia	Garcia	1993-04-20	39 W. Victoria St. Bron...	F	Tutor	Cynthia8908@gmail.com	2018-10-08	3177663441	35
employee 15	employee 16	course 10								

Action Output

#	Time	Action	Message	Duration / Fetch
301	13:25:57	use CS_LAB	0 row(s) affected	0.000 sec
302	13:26:13	update course Set course_name = 'ENG 152', Description_of_course = 'English composition' where emp_EmpId = '23345673'	Error Code: 1054. Unknown column 'Description' in 'where clause'	0.000 sec
303	13:26:13	use CS_LAB	0 row(s) affected	0.000 sec
304	13:26:13	update course Set course_name = 'ENG 152', Description_of_course = 'English composition' where emp_EmpId = '23345673'	Error Code: 1054. Unknown column 'Description' in 'where clause'	0.000 sec
305	13:26:30	use CS_LAB	0 row(s) affected	0.016 sec
306	13:26:30	update course Set course_name = 'ENG 152', Description_of_course = 'English composition' where emp_EmpId = '23345673'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.015 sec

Write 1 statement that deletes a record from a table based on some condition

The screenshot shows the MySQL Workbench interface. In the top-left, the Navigator pane displays the schema structure of 'FinalProject'. The central area contains a query editor window titled 'FinalProject*' with the following SQL code:

```

537     AND Description_of_course = 'Programming methods 1';
538
539
540  /*
541   Write 1 statement that deletes a record from a table based on some condition
542
543
544  /*
545   DELETE FROM Employee WHERE first_name = 'Erick' and last_name = 'Highwind' and EmpId = '9043911';
546
547
548 * select * from employee;
549

```

Below the query editor is a 'Result Grid' showing data from the 'employee' table:

EMPID	First_Name	Last_Name	Date_Of_Birth	Address	Sex	Title	Email	Hiring_Date	Phone_Number	Weekly_Hr
74930572	Cynthia	Garcia	1993-04-20	39 W. Victoria St. Bronx...	F	Tutor	Cynthia8908@gmail.com	2018-10-08	3177653441	35
76849392	Kaveh	Raniero	1989-09-25	34 Clay Lane Bronx, NY...	M	Coordinator	KavehRaniero1245@gmail.com	2018-01-01	9146166345	50
802112398	Lukas	Corvo	1998-02-02	72-44 Riverside St. Staten...	M	Tutor	LukasCor2247@gmail.com	2020-04-27	7129738836	40

The bottom section shows the 'Output' pane with the following log entries:

- 307 13:31:22 use CS_LAB
- 308 13:31:22 DELETE FROM Employee WHERE first_name = 'Erick' and last_name = 'Highwind'
- 309 13:31:54 use CS_LAB
- 310 13:31:54 DELETE FROM Employee WHERE first_name = 'Erick' and last_name = 'Highwind' and EmpId = '9043911'
- 311 13:32:17 use CS_LAB
- 312 13:32:17 select * from employee LIMIT 0, 1000

With my application, I would say that this was the most enjoyable part of the entire project. I liked setting up all the relations, primary keys, and foreign keys. When setting everything up and putting my code in, after I had run it, I would always comment it out so rows never came out affected. Everything else was pretty standard when doing it, especially when inputting all the data in each table.

Conclusion:

My experience with this project I would say was incredibly enjoyable. The easiest part of this project for me I would say was the SQL while the normalization parts were definitely the hardest. I didn't ask anyone for help and when I did, I simply just looked at the slides, or went to a website I use for certain explanations. If I really did not understand something, I would go to youtube to see someone else explain it and how it worked. My future plans on this project are to see if I can expand on it in the future or go out of my way to make a whole new database. I generally like making these kinda databases and if I had more time, I would've definitely made this report much neater.