

Student's Full Name: Surajit Pal

Course Title: Data Warehousing and Analytics in the Cloud

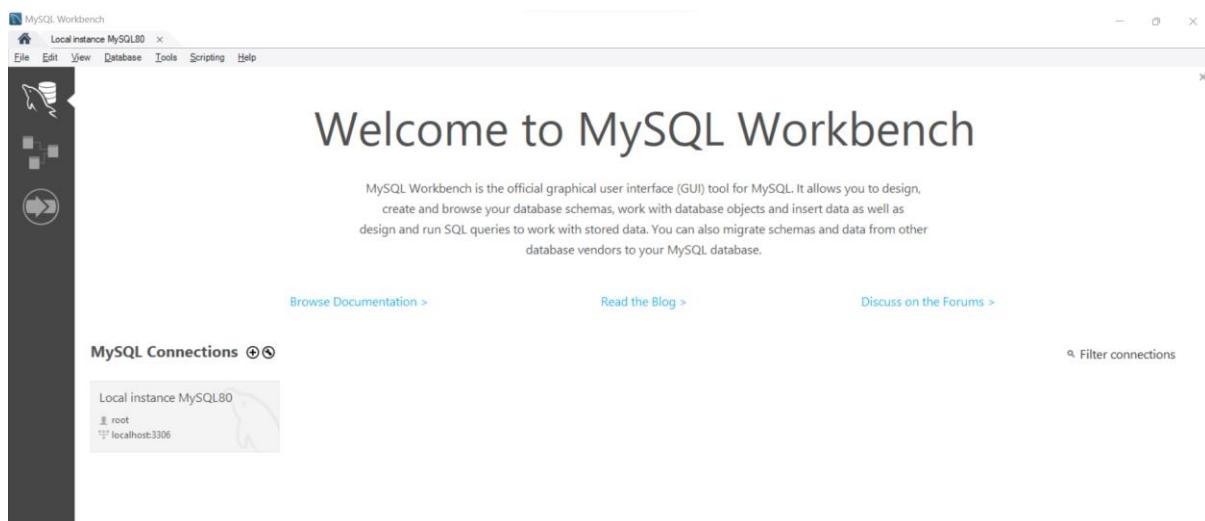
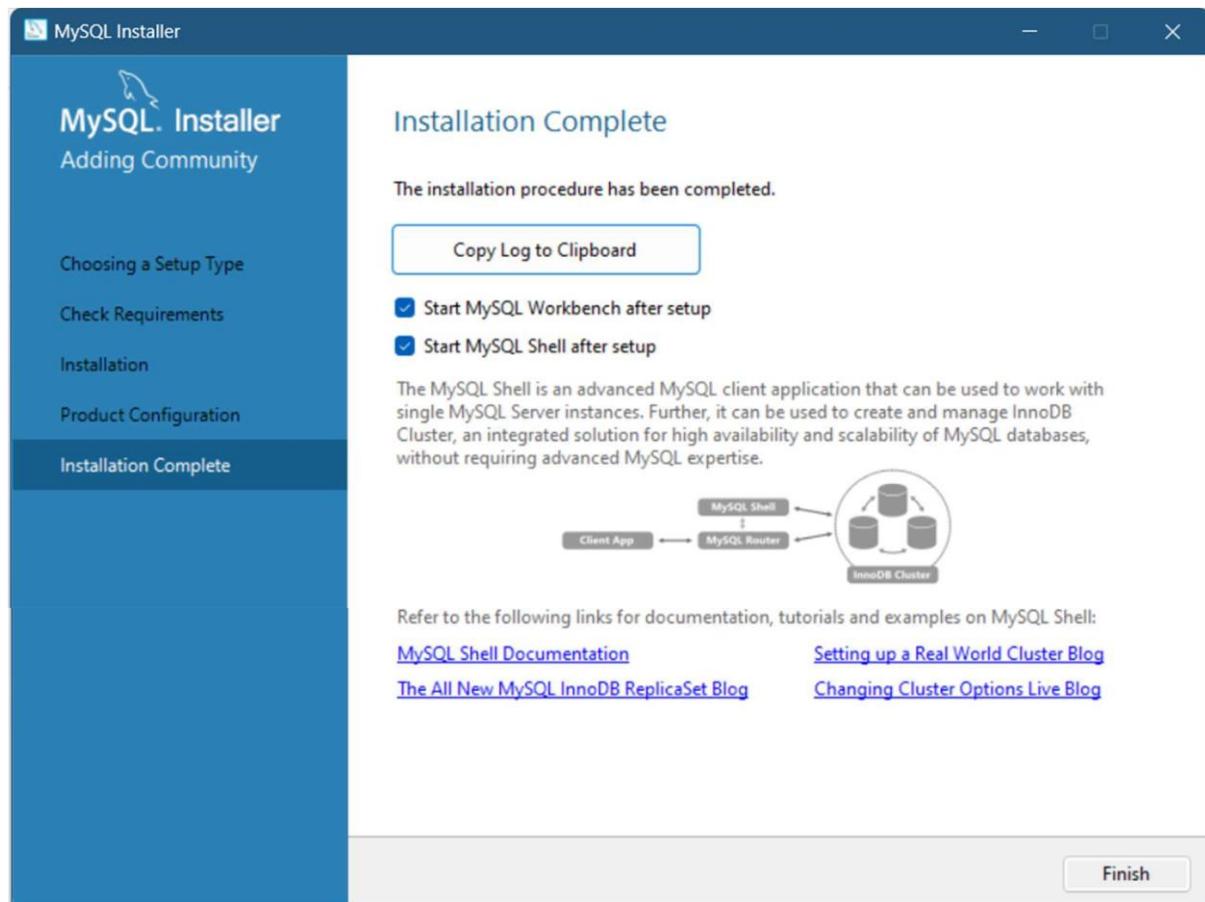
Term name and year: Spring 2023

Submission Week: Week 3- Assignment 2

Instructor's Name: Dr. Nayem Rahman

Date of Submission: 15 – Nov – 2023

Q1. Show the screenshot of a successful installation of MySQL Software and MySQL Workbench with the latest version on your machine. Show the screenshot of the database "Worker" created



Query 1 ×

CREATE DATABASE Worker;

Output

Action Output

#	Time	Action
1	17:13:42	CREATE DATABASE Worker

Message

1 row(s) affected

Query 1 ×

SHOW DATABASES;

Result Grid | Filter Rows: _____ | Export: | Wrap Cell Content:

Database
information_schema
mysql
performance_schema
sakila
sys
worker
world

Result Grid

Form Editor

Q2. Create the Department table in the Worker database (table must be based on Physical Model Provided in the Assignment folder). (a) Columns, Primary Key (PK), Data Type & length, and NULL/NOT NULL need to be implemented, as provided in the Physical Model. (b) Show the table definition (DDL) that you implemented. (c) Insert the complete set of data provided in the Excel file (uploaded in the Assignment folder) and show the insert statements used. (d) Retrieve the data from the Department table by using the SELECT * statement and order by PK column(s). Show the output. Make sure you show the print screen of the complete set of the rows and columns. The rows must be ordered by PK column(s).

The screenshot shows the SQL Server Management Studio interface. The top pane displays the DDL code for creating the WORKER.DEPARTMENT table:

```

1 • CREATE TABLE WORKER.DEPARTMENT (
2     DEPARTMENTID TINYINT NOT NULL,
3     DEPARTMENTNM CHAR(30) NOT NULL,
4     PRIMARY KEY (DEPARTMENTID));

```

The bottom pane shows the Action Output window with the following log entries:

#	Time	Action	Message
1	17:13:42	CREATE DATABASE Worker	1 row(s) affected
2	17:14:51	SHOW DATABASES	7 row(s) returned
3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...)	0 row(s) affected

The screenshot shows the SQL Server Management Studio interface. The top pane displays the DML code for inserting data into the WORKER.DEPARTMENT table:

```

1 • INSERT INTO WORKER.DEPARTMENT
2     VALUES(1,'Research & Development'),
3             (2,'Production'),
4             (3,'IT Support'),
5             (4,'Operations'),
6             (5,'Customer Service'),
7             (6,'Purchasing'),
8             (7,'Sales & Marketing'),
9             (8,'Human Resource Management'),
10            (9,'Accounting and Finance'),
11            (10,'Legal');

```

The bottom pane shows the Action Output window with the following log entries:

#	Time	Action	Message
1	17:13:42	CREATE DATABASE Worker	1 row(s) affected
2	17:14:51	SHOW DATABASES	7 row(s) returned
3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...)	0 row(s) affected
4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'), (2,'Production'), (3,'IT Support'), (4,'Operations'), (5,'Customer Service'), (6,'Purchasing'), (7,'Sales & Marketing'), (8,'Human Resource Management'), (9,'Accounting and Finance'), (10,'Legal');	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0

Query 1

```

1 • SELECT * FROM WORKER.DEPARTMENT
2 ORDER BY DEPARTMENTID;

```

Result Grid

DEPARTMENTID	DEPARTMENTNM
1	Research & Development
2	Production
3	IT Support
4	Operations
5	Customer Service
6	Purchasing
7	Sales & Marketing
8	Human Resource Management
9	Accounting and Finance
10	Legal
*	NULL

DEPARTMENT 2

Output

#	Time	Action	Message
1	17:13:42	CREATE DATABASE Worker	1 row(s) affected
2	17:14:51	SHOW DATABASES	7 row(s) returned
3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...)	0 row(s) affected
4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'), (2,'Production'), (3,'IT Support'), (4,'Operations'), (5,'Customer Service'), (6,'Purchasing'), (7,'Sales & Marketing'), (8,'Human Resource Management'), (9,'Accounting and Finance'), (10,'Legal')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0
5	17:25:51	SELECT * FROM WORKER.DEPARTMENT ORDER BY DEPARTMENTID LIMIT 0, 1000	10 row(s) returned

Q3. Create the Employee table in the Worker database (table must be based on Physical Model Provided in the Assignment folder). (a) Columns, Primary Key (PK), Data Type and length, and NULL/NOT NULL need to be implemented, as provided in the Physical Model. (b) Show the table definition (DDL) that you implemented (not in a graphical view). (c) Insert the complete set of data provided in the Excel file (uploaded in the Assignment folder) and show the insert statements used. (d) Retrieve the data from the Employee table by using the SELECT * statement and order by PK column(s). Show the output. Make sure you show the print screen of the complete set of the rows and columns. The rows must be ordered by PK column(s).

Query 1

```

1 • CREATE TABLE WORKER.EMPLOYEE (
2     EMPLOYEEID INTEGER NOT NULL,
3     DEPARTMENTID TINYINT NOT NULL,
4     FIRSTNAME VARCHAR(20) NOT NULL,
5     LASTNAME VARCHAR(20) NOT NULL,
6     ADDRESS VARCHAR(50),
7     PHONENUMBERTXT VARCHAR(15),
8     HIREDATE DATE NOT NULL,
9     PRIMARY KEY (EMPLOYEEID));

```

Output

#	Time	Action	Message
1	17:13:42	CREATE DATABASE Worker	1 row(s) affected
2	17:14:51	SHOW DATABASES	7 row(s) returned
3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...)	0 row(s) affected
4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'), (2,'Production'), (3,'IT Support'), (4,'Operations'), (5,'Customer Service'), (6,'Purchasing'), (7,'Sales & Marketing'), (8,'Human Resource Management'), (9,'Accounting and Finance'), (10,'Legal')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0
5	17:25:51	SELECT * FROM WORKER.DEPARTMENT ORDER BY DEPARTMENTID LIMIT 0, 1000	10 row(s) returned
6	17:33:00	CREATE TABLE WORKER.EMPLOYEE (EMPLOYEEID INTEGER NOT NULL, DEPARTMENTID TINYINT...)	0 row(s) affected

Query 1

```

1 • INSERT INTO WORKER.EMPLOYEE
2 VALUES(1,2,'Andy','Wong','345 South Street',(603) 555-6880,'2001-01-15'),
3 (2,1,'John','Wilson','560 Broadway',(518) 555-6690,'2017-03-19'),
4 (3,3,'Vivek','Pandey','15 Mineral Drive',(603) 555-4420,'2003-11-15'),
5 (4,7,'Nola','Davis','15 Long Ave',(478) 555-8822,'2016-03-23'),
6 (5,8,'Kathy','Cooper','15 Hatter Drive',(212) 555-9630,'2011-11-18'),
7 (6,9,'Tom','Harper','64 Highland Street',(212) 555-7755,'2010-04-11');

```

Output

Action Output

#	Time	Action	Message
1	17:13:42	CREATE DATABASE Worker	1 row(s) affected
2	17:14:51	SHOW DATABASES	7 row(s) returned
3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...	0 row(s) affected
4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'),(2,'Production'),(3,'IT Support')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0
5	17:25:51	SELECT * FROM WORKER.DEPARTMENT ORDER BY DEPARTMENTID LIMIT 0, 1000	10 row(s) returned
6	17:33:00	CREATE TABLE WORKER.EMPLOYEE (EMPLOYEEID INTEGER NOT NULL, DEPARTMENTID TINYINT...	0 row(s) affected
7	17:33:49	INSERT INTO WORKER.EMPLOYEE VALUES(1,2,'Andy','Wong','345 South Street',(603) 555-6880,'2001-01-15')	6 row(s) affected Records: 6 Duplicates: 0 Warnings: 0

Query 1

```

1 • SELECT * FROM WORKER.EMPLOYEE
2 ORDER BY EMPLOYEEID;

```

Result Grid

EMPLOYEEID	DEPARTMENTID	FIRSTNAME	LASTNAME	ADDRESS	PHONENUMBERTEXT	HIREDATE
1	2	Andy	Wong	345 South Street	(603) 555-6880	2001-01-15
2	1	John	Wilson	560 Broadway	(518) 555-6690	2017-03-19
3	3	Vivek	Pandey	15 Mineral Drive	(603) 555-4420	2003-11-15
4	7	Nola	Davis	15 Long Ave	(478) 555-8822	2016-03-23
5	8	Kathy	Cooper	15 Hatter Drive	(212) 555-9630	2011-11-18
6	9	Tom	Harper	64 Highland Street	(212) 555-7755	2010-04-11
*	NULL	NULL	NULL	NULL	NULL	NULL

EMPLOYEE 3

Action Output

#	Time	Action	Message
1	17:13:42	CREATE DATABASE Worker	1 row(s) affected
2	17:14:51	SHOW DATABASES	7 row(s) returned
3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...	0 row(s) affected
4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'),(2,'Production'),(3,'IT Support')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0
5	17:25:51	SELECT * FROM WORKER.DEPARTMENT ORDER BY DEPARTMENTID LIMIT 0, 1000	10 row(s) returned
6	17:33:00	CREATE TABLE WORKER.EMPLOYEE (EMPLOYEEID INTEGER NOT NULL, DEPARTMENTID TINYINT...	0 row(s) affected
7	17:33:49	INSERT INTO WORKER.EMPLOYEE VALUES(1,2,'Andy','Wong','345 South Street',(603) 555-6880,'2001-01-15')	6 row(s) affected Records: 6 Duplicates: 0 Warnings: 0
8	17:34:53	SELECT * FROM WORKER.EMPLOYEE ORDER BY EMPLOYEEID LIMIT 0, 1000	6 row(s) returned

Q4. Create the Equipment table in the Worker database (table must be based on Physical Model Provided in the Assignment folder). (a) Columns, Primary Key (PK), Data Type & length, and NULL/NOT NULL need to be implemented, as provided in the Physical Model. (b) Show the table definition (DDL) that you implemented. (c) Insert the complete set of data provided in the Excel file (uploaded in the Assignment folder) and show the insert statements used. (d) Retrieve the data from the Equipment table by using the SELECT * statement and order by PK column(s). Show the output. Make sure you show the print screen of the complete set of the rows and columns. The rows must be ordered by PK column(s).

Query 1

```

CREATE TABLE WORKER.EQUIPMENT (
    EQUIPMENTID INTEGER NOT NULL,
    EQUIPMENTNAME VARCHAR(30) NOT NULL,
    EQUIPMENTCOSTAMOUNT DECIMAL(13,2),
    PRIMARY KEY (EQUIPMENTID));

```

Output

#	Time	Action	Message
1	17:13:42	CREATE DATABASE Worker	1 row(s) affected
2	17:14:51	SHOW DATABASES	7 row(s) returned
3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...	0 row(s) affected
4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'),(2,'Production'),(3,'IT Support...')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0
5	17:25:51	SELECT * FROM WORKER.DEPARTMENT ORDER BY DEPARTMENTID LIMIT 0, 1000	10 row(s) returned
6	17:33:00	CREATE TABLE WORKER.EMPLOYEE (EMPLOYEEID INTEGER NOT NULL, DEPARTMENTID TINYINT...)	0 row(s) affected
7	17:33:49	INSERT INTO WORKER.EMPLOYEE VALUES(1,2,'Andy','Wong','345 South Street',(603) 555-6880',2001-01-1...)	6 row(s) affected Records: 6 Duplicates: 0 Warnings: 0
8	17:34:53	SELECT * FROM WORKER.EMPLOYEE ORDER BY EMPLOYEEID LIMIT 0, 1000	6 row(s) returned
9	17:36:40	CREATE TABLE WORKER.EQUIPMENT (EQUIPMENTID INTEGER NOT NULL, EQUIPMENTNAME VAR...	0 row(s) affected

Query 1

```

INSERT INTO WORKER.EQUIPMENT
VALUES(1,'Notebook Computers',23.6),
      (2,'Headsets',45.7),
      (3,'Computer Monitor',67.8),
      (4,'Multi-Function Printers',43.6),
      (5,'Projector or a Big Screen TV',87.6),
      (6,'Servers',54.3),
      (7,'Internet Modem',99.8),
      (8,'Cell Phone',33.4);

```

Query 1

```
1 •  SELECT * FROM WORKER.EQUIPMENT
2   ORDER BY EQUIPMENTID;
```

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

	EQUIPMENTID	EQUIPMENTNAME	EQUIPMENTCOSTAMOUNT
▶	1	Notebook Computers	23.60
	2	Headsets	45.70
	3	Computer Monitor	67.80
	4	Multi-Function Printers	43.60
	5	Projector or a Big Screen TV	87.60
	6	Servers	54.30
	7	Internet Modem	99.80
	8	Cell Phone	33.40
*	NULL	NULL	NULL

Q5. Create the EmployeeEquipment table in the Worker database (table must be based on Physical Model Provided in the Assignment folder). (a) Columns, Primary Key (PK), Data Type & length, and NULL/NOT NULL need to be implemented, as provided in the Physical Model. (b) Show the table definition (DDL) that you implemented. (c) Insert the complete set of data provided in the Excel file (uploaded in the Assignment folder) and show the insert statements used. (d) Retrieve the data from the EmployeeEquipment table by using the SELECT * statement and order by PK column(s). Show the output. Make sure you show the print screen of the complete set of the rows and columns. The rows must be ordered by PK column(s).

Query 1

```

1 •  CREATE TABLE WORKER.EMPLOYEEEQUIPMENT (
2     EMPLOYEEID INTEGER NOT NULL,
3     EQUIPMENTID INTEGER NOT NULL,
4     PRIMARY KEY (EMPLOYEEID,EQUIPMENTID));

```

Output

Action Output

#	Time	Action	Message
1	17:13:42	CREATE DATABASE Worker	1 row(s) affected
2	17:14:51	SHOW DATABASES	7 row(s) returned
3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...)	0 row(s) affected
4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'),(2,'Production'),(3,'IT Support')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0
5	17:25:51	SELECT * FROM WORKER.DEPARTMENT ORDER BY DEPARTMENTID LIMIT 0, 1000	10 row(s) returned
6	17:33:00	CREATE TABLE WORKER.EMPLOYEE (EMPLOYEEID INTEGER NOT NULL, DEPARTMENTID TINYINT...)	0 row(s) affected
7	17:33:49	INSERT INTO WORKER.EMPLOYEE VALUES(1,'Andy','Wong','345 South Street',(603) 555-6880','2001-01-1...)	6 row(s) affected Records: 6 Duplicates: 0 Warnings: 0
8	17:34:53	SELECT * FROM WORKER.EMPLOYEE ORDER BY EMPLOYEEID LIMIT 0, 1000	6 row(s) returned
9	17:36:40	CREATE TABLE WORKER.EQUIPMENT (EQUIPMENTID INTEGER NOT NULL, EQUIPMENTNAME VAR...)	0 row(s) affected
10	17:37:09	INSERT INTO WORKER.EQUIPMENT VALUES(1,'Notebook Computers'),(2,'Headsets'),(3,'Computer Moni...')	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0
11	17:37:42	SELECT * FROM WORKER.EQUIPMENT ORDER BY EQUIPMENTID LIMIT 0, 1000	8 row(s) returned
12	17:39:32	CREATE TABLE WORKER.EMPLOYEEEQUIPMENT (EMPLOYEEID INTEGER NOT NULL, EQUIPMENTI...)	0 row(s) affected

Output

Action Output

1	•	INSERT INTO WORKER.EMPLOYEEEQUIPMENT
2		VALUES(1,1),
3		(2,1),
4		(2,3),
5		(3,1),
6		(3,2),
7		(3,3),
8		(4,1),
9		(4,2),
10		(5,1),
11		(5,2),
12		(5,3),
13		(6,1),
14		(6,3);

Output

Action Output

#	Time	Action	Message
2	17:14:51	SHOW DATABASES	7 row(s) returned
3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...)	0 row(s) affected
4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'),(2,'Production'),(3,'IT Support')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0
5	17:25:51	SELECT * FROM WORKER.DEPARTMENT ORDER BY DEPARTMENTID LIMIT 0, 1000	10 row(s) returned
6	17:33:00	CREATE TABLE WORKER.EMPLOYEE (EMPLOYEEID INTEGER NOT NULL, DEPARTMENTID TINYIN...)	0 row(s) affected
7	17:33:49	INSERT INTO WORKER.EMPLOYEE VALUES(1,'Andy','Wong','345 South Street',(603) 555-6880','2001-01-1...)	6 row(s) affected Records: 6 Duplicates: 0 Warnings: 0
8	17:34:53	SELECT * FROM WORKER.EMPLOYEE ORDER BY EMPLOYEEID LIMIT 0, 1000	6 row(s) returned
9	17:36:40	CREATE TABLE WORKER.EQUIPMENT (EQUIPMENTID INTEGER NOT NULL, EQUIPMENTNAME VAR...)	0 row(s) affected
10	17:37:09	INSERT INTO WORKER.EQUIPMENT VALUES(1,'Notebook Computers'),(2,'Headsets'),(3,'Computer M...')	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0
11	17:37:42	SELECT * FROM WORKER.EQUIPMENT ORDER BY EQUIPMENTID LIMIT 0, 1000	8 row(s) returned
12	17:39:32	CREATE TABLE WORKER.EMPLOYEEEQUIPMENT (EMPLOYEEID INTEGER NOT NULL, EQUIPMENTI...)	0 row(s) affected
13	17:40:23	INSERT INTO WORKER.EMPLOYEEEQUIPMENT VALUES(1,1),(2,1),(2,3),(3,1),(3,2),(3,3),(4,1),(4,2),(5,...)	13 row(s) affected Records: 13 Duplicates: 0 Warnings: 0

Query 1

```

1 •   SELECT * FROM WORKER.EMPLOYEEEQUIPMENT
2     ORDER BY EMPLOYEEID, EQUIPMENTID;

```

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

	EMPLOYEEID	EQUIPMENTID
▶	1	1
	2	1
	2	3
	3	1
	3	2
	3	3
	4	1
	4	2
	5	1
	5	2
	5	3
	6	1
	6	3
●	HULL	HULL

EMPLOYEEEQUIPMENT 5 × | Apply

Output

Action Output

#	Time	Action	Message
8	17:34:53	SELECT * FROM WORKER.EMPLOYEE ORDER BY EMPLOYEEID LIMIT 0, 1000	6 row(s) returned
9	17:36:40	CREATE TABLE WORKER.EQUIPMENT (EQUIPMENTID INTEGER NOT NULL, EQUIPMENTNAME VA...)	0 row(s) affected
10	17:37:09	INSERT INTO WORKER.EQUIPMENT VALUES(1,'Notebook Computers'),(2,'Headsets'),(3,'Computer M...')	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0
11	17:37:42	SELECT * FROM WORKER.EQUIPMENT ORDER BY EQUIPMENTID LIMIT 0, 1000	8 row(s) returned
12	17:39:32	CREATE TABLE WORKER.EMPLOYEEEQUIPMENT (EMPLOYEEID INTEGER NOT NULL, EQUIPMENTID INTEG...)	0 row(s) affected
13	17:40:23	INSERT INTO WORKER.EMPLOYEEEQUIPMENT VALUES(1,1), (2,1), (2,3), (3,1), (3,2), (3,3), (4,1), (4,2), (5,...)	13 row(s) affected Records: 13 Duplicates: 0 Warnings: 0
14	17:40:54	SELECT * FROM WORKER.EMPLOYEEEQUIPMENT ORDER BY EMPLOYEEID, EQUIPMENTID LIMIT 0, ...	13 row(s) returned

Q6. Create the Training table in the Worker database (table must be based on Physical Model Provided in the Assignment folder). (a) Columns, Primary Key (PK), Data Type & length, and NULL/NOT NULL need to be implemented, as provided in the Physical Model. (b) Show the table definition (DDL) that you implemented. (c) Insert the complete set of data provided in the Excel file (uploaded in the Assignment folder) and show the insert statements used. (d) Retrieve the data from the Training table by using the SELECT * statement and order by PK column(s). Show the output. Make sure you show the print screen of the complete set of the rows and columns. The rows must be ordered by PK column(s).

Query 1

```

1 • CREATE TABLE WORKER.TRAINING (
2     TRAININGID INTEGER NOT NULL,
3     TRAININGNAME VARCHAR(50) NOT NULL,
4     PRIMARY KEY (TRAININGID));

```

Output

Action Output	#	Time	Action	Message
	1	17:13:42	CREATE DATABASE Worker	1 row(s) affected
	2	17:14:51	SHOW DATABASES	7 row(s) returned
	3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...)	0 row(s) affected
	4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'), (2,'Production'), (3,'IT Support')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0
	5	17:25:51	SELECT * FROM WORKER.DEPARTMENT ORDER BY DEPARTMENTID LIMIT 0, 1000	10 row(s) returned
	6	17:33:00	CREATE TABLE WORKER.EMPLOYEE (EMPLOYEEID INTEGER NOT NULL, DEPARTMENTID TINYINT...)	0 row(s) affected
	7	17:33:49	INSERT INTO WORKER.EMPLOYEE VALUES(1,2,'Andy','Wong','345 South Street','(603) 555-6880','2001-01-15')	6 row(s) affected Records: 6 Duplicates: 0 Warnings: 0
	8	17:34:53	SELECT * FROM WORKER.EMPLOYEE ORDER BY EMPLOYEEID LIMIT 0, 1000	6 row(s) returned
	9	17:36:40	CREATE TABLE WORKER.EQUIPMENT (EQUIPMENTID INTEGER NOT NULL, EQUIPMENTNAME VAR...)	0 row(s) affected
	10	17:37:09	INSERT INTO WORKER.EQUIPMENT VALUES(1,'Notebook Computers'), (2,'Headsets'), (3,'Computer Monitors'), (4,'Laptops'), (5,'Smartphones'), (6,'Tablets'), (7,'Projectors'), (8,'Monitors'), (9,'Keyboard'), (10,'Mouse')	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0
	11	17:37:42	SELECT * FROM WORKER.EQUIPMENT ORDER BY EQUIPMENTID LIMIT 0, 1000	8 row(s) returned
	12	17:39:32	CREATE TABLE WORKER.EMPLOYEEEQUIPMENT (EMPLOYEEID INTEGER NOT NULL, EQUIPMENTID INT...)	0 row(s) affected
	13	17:40:23	INSERT INTO WORKER.EMPLOYEEEQUIPMENT VALUES(1,1), (2,1), (2,2), (3,1), (3,2), (3,3), (4,1), (4,2), (5,1), (5,2), (5,3), (6,1), (6,2), (6,3), (7,1), (7,2), (7,3), (8,1), (8,2), (8,3), (9,1), (9,2), (9,3), (10,1), (10,2), (10,3), (11,1), (11,2), (11,3)	13 row(s) affected Records: 13 Duplicates: 0 Warnings: 0
	14	17:40:54	SELECT * FROM WORKER.EMPLOYEEEQUIPMENT ORDER BY EMPLOYEEID, EQUIPMENTID LIMIT 0, 1000	13 row(s) returned
	15	17:42:27	CREATE TABLE WORKER.TRAINING (TRAININGID INTEGER NOT NULL, TRAININGNAME VARCHAR(50))	0 row(s) affected

Query 1

```

1 • INSERT INTO WORKER.TRAINING
2     VALUES(1,'COVID-19 Awareness and Protection Training'),
3            (2,'Code of Conduct Training'),
4            (3,'Safety Training'),
5            (4,'Intro to Python'),
6            (5,'Machine Learning'),
7            (6,'Microsoft Certifications'),
8            (7,'Security and Privacy'),
9            (8,'Product Knowledge'),
10           (9,'Sales Skills'),
11           (10,'Employee Relations'),
12           (11,'Travel and Expense Management');

```

Output

Action Output	#	Time	Action	Message
	4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'), (2,'Production'), (3,'IT Support')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0
	5	17:25:51	SELECT * FROM WORKER.DEPARTMENT ORDER BY DEPARTMENTID LIMIT 0, 1000	10 row(s) returned
	6	17:33:00	CREATE TABLE WORKER.EMPLOYEE (EMPLOYEEID INTEGER NOT NULL, DEPARTMENTID TINYINT...)	0 row(s) affected
	7	17:33:49	INSERT INTO WORKER.EMPLOYEE VALUES(1,2,'Andy','Wong','345 South Street','(603) 555-6880','2001-01-15')	6 row(s) affected Records: 6 Duplicates: 0 Warnings: 0
	8	17:34:53	SELECT * FROM WORKER.EMPLOYEE ORDER BY EMPLOYEEID LIMIT 0, 1000	6 row(s) returned
	9	17:36:40	CREATE TABLE WORKER.EQUIPMENT (EQUIPMENTID INTEGER NOT NULL, EQUIPMENTNAME VAR...)	0 row(s) affected
	10	17:37:09	INSERT INTO WORKER.EQUIPMENT VALUES(1,'Notebook Computers'), (2,'Headsets'), (3,'Computer Monitors'), (4,'Laptops'), (5,'Smartphones'), (6,'Tablets'), (7,'Projectors'), (8,'Monitors'), (9,'Keyboard'), (10,'Mouse')	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0
	11	17:37:42	SELECT * FROM WORKER.EQUIPMENT ORDER BY EQUIPMENTID LIMIT 0, 1000	8 row(s) returned
	12	17:39:32	CREATE TABLE WORKER.EMPLOYEEEQUIPMENT (EMPLOYEEID INTEGER NOT NULL, EQUIPMENTID INT...)	0 row(s) affected
	13	17:40:23	INSERT INTO WORKER.EMPLOYEEEQUIPMENT VALUES(1,1), (2,1), (2,2), (3,1), (3,2), (3,3), (4,1), (4,2), (5,1), (5,2), (5,3), (6,1), (6,2), (6,3), (7,1), (7,2), (7,3), (8,1), (8,2), (8,3), (9,1), (9,2), (9,3), (10,1), (10,2), (10,3), (11,1), (11,2), (11,3)	13 row(s) affected Records: 13 Duplicates: 0 Warnings: 0
	14	17:40:54	SELECT * FROM WORKER.EMPLOYEEEQUIPMENT ORDER BY EMPLOYEEID, EQUIPMENTID LIMIT 0, 1000	13 row(s) returned
	15	17:42:27	CREATE TABLE WORKER.TRAINING (TRAININGID INTEGER NOT NULL, TRAININGNAME VARCHAR(50))	0 row(s) affected
	16	17:49:45	INSERT INTO WORKER.TRAINING VALUES(1,'COVID-19 Awareness and Protection Training'), (2,'Code of ...')	11 row(s) affected Records: 11 Duplicates: 0 Warnings: 0

Query 1

```

1 •  SELECT * FROM WORKER.TRAINING
2   ORDER BY TRAININGID;

```

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

TRAININGID	TRAININGNAME
1	COVID-19 Awareness and Protection Training
2	Code of Conduct Training
3	Safety Traning
4	Intro to Python
5	Machine Learning
6	Microsoft Certifications
7	Security and Privacy
8	Product Knowledge
9	Sales Skills
10	Employee Relations
11	Travel and Expense Management
*	NULL

TRAINING 6

Output

Action Output

#	Time	Action	Message
10	17:37:09	INSERT INTO WORKER.EQUIPMENT VALUES(1,'Notebook Computers',0), (2,'Headsets',0), (3,'Computer M...	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0
11	17:37:42	SELECT * FROM WORKER.EQUIPMENT ORDER BY EQUIPMENTID LIMIT 0, 1000	8 row(s) returned
12	17:39:32	CREATE TABLE WORKER.EMPLOYEEEQUIPMENT (EMPLOYEEID INTEGER NOT NULL, EQUIPMENTID INTEG...	0 row(s) affected
13	17:40:23	INSERT INTO WORKER.EMPLOYEEEQUIPMENT VALUES(1,1), (2,1), (2,3), (3,1), (3,2), (3,3), (4,1), (4,2), (5,...	13 row(s) affected Records: 13 Duplicates: 0 Warnings: 0
14	17:40:54	SELECT * FROM WORKER.EMPLOYEEEQUIPMENT ORDER BY EMPLOYEEID, EQUIPMENTID LIMIT 0, ...	13 row(s) returned
15	17:42:27	CREATE TABLE WORKER.TRAINING (TRAININGID INTEGER NOT NULL, TRAININGNAME VARCHAR(50) NOT...	0 row(s) affected
16	17:49:45	INSERT INTO WORKER.TRAINING VALUES(1,'COVID-19 Awareness and Protection Training'), (2,'Code of ...	11 row(s) affected Records: 11 Duplicates: 0 Warnings: 0
17	17:50:20	SELECT * FROM WORKER.TRAINING ORDER BY TRAININGID LIMIT 0, 1000	11 row(s) returned

Q7. Create the EmployeeTraining table in the Worker database (table must be based on Physical Model Provided in the Assignment folder). (a) Columns, Primary Key (PK), Data Type & length, and NULL/NOT NULL need to be implemented, as provided in the Physical Model. (b) Show the table definition (DDL) that you implemented. (c) Insert the complete set of data provided in the Excel file (uploaded in the Assignment folder) and show the insert statements used. (d) Retrieve the data from the EmployeeTraining table by using the SELECT * statement and order by PK column(s). Show the output. Make sure you show the print screen of the complete set of the rows and columns. The rows must be ordered by PK column(s).

Query 1

```

1 • CREATE TABLE WORKER.EMPLOYEETRAINING (
2     EMPLOYEEID INTEGER NOT NULL,
3     TRAININGID INTEGER NOT NULL,
4     PRIMARY KEY (EMPLOYEEID,TRAININGID));

```

Output

Action Output			
#	Time	Action	Message
1	17:13:42	CREATE DATABASE Worker	1 row(s) affected
2	17:14:51	SHOW DATABASES	7 row(s) returned
3	17:18:12	CREATE TABLE WORKER.DEPARTMENT (DEPARTMENTID TINYINT NOT NULL, DEPARTMENTNM C...)	0 row(s) affected
4	17:19:40	INSERT INTO WORKER.DEPARTMENT VALUES(1,'Research & Development'), (2,'Production'), (3,'IT Support')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0
5	17:25:51	SELECT * FROM WORKER.DEPARTMENT ORDER BY DEPARTMENTID LIMIT 0, 1000	10 row(s) returned
6	17:33:00	CREATE TABLE WORKER.EMPLOYEE (EMPLOYEEID INTEGER NOT NULL, DEPARTMENTID TINYINT...)	0 row(s) affected
7	17:33:49	INSERT INTO WORKER.EMPLOYEE VALUES(1,2,'Andy','Wong','345 South Street','(603) 555-6880','2001-01-15')	6 row(s) affected Records: 6 Duplicates: 0 Warnings: 0
8	17:34:53	SELECT * FROM WORKER.EMPLOYEE ORDER BY EMPLOYEEID LIMIT 0, 1000	6 row(s) returned
9	17:36:40	CREATE TABLE WORKER.EQUIPMENT (EQUIPMENTID INTEGER NOT NULL, EQUIPMENTNAME VAR...)	0 row(s) affected
10	17:37:09	INSERT INTO WORKER.EQUIPMENT VALUES(1,'Notebook Computers'), (2,'Headsets'), (3,'Computer Monitors'), (4,'Laptops'), (5,'Smartphones')	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0
11	17:37:42	SELECT * FROM WORKER.EQUIPMENT ORDER BY EQUIPMENTID LIMIT 0, 1000	8 row(s) returned
12	17:39:32	CREATE TABLE WORKER.EMPLOYEEEQUIPMENT (EMPLOYEEID INTEGER NOT NULL, EQUIPMENTID I...)	0 row(s) affected
13	17:40:23	INSERT INTO WORKER.EMPLOYEEEQUIPMENT VALUES(1,1), (2,1), (2,3), (3,1), (3,2), (3,3), (4,1), (4,2), (5,1), (5,2), (5,3), (6,1), (6,2), (6,3), (7,1), (7,2), (7,3), (8,1), (8,2), (8,3), (9,1), (9,2), (9,3), (10,1), (10,2), (10,3), (11,1), (11,2), (11,3), (12,1), (12,2), (12,3), (13,1), (13,2), (13,3), (14,1), (14,2), (14,3), (15,1), (15,2), (15,3), (16,1), (16,2), (16,3)	13 row(s) affected Records: 13 Duplicates: 0 Warnings: 0
14	17:40:54	SELECT * FROM WORKER.EMPLOYEEEQUIPMENT ORDER BY EMPLOYEEID, EQUIPMENTID LIMIT 0, 1000	13 row(s) returned
15	17:42:27	CREATE TABLE WORKER.TRAINING (TRAININGID INTEGER NOT NULL, TRAININGNAME VARCHAR(50))	0 row(s) affected
16	17:49:45	INSERT INTO WORKER.TRAINING VALUES(1,'COVID-19 Awareness and Protection Training'), (2,'Code of Conduct'), (3,'Data Privacy'), (4,'Employee Benefits'), (5,'Health and Safety'), (6,'Leadership'), (7,'Performance Management'), (8,'Productivity'), (9,'Teamwork'), (10,'Time Management'), (11,'Workplace Safety')	11 row(s) affected Records: 11 Duplicates: 0 Warnings: 0
17	17:50:20	SELECT * FROM WORKER.TRAINING ORDER BY TRAININGID LIMIT 0, 1000	11 row(s) returned
18	17:53:40	CREATE TABLE WORKER.EMPLOYEETRAINING (EMPLOYEEID INTEGER NOT NULL, TRAININGID INT...)	0 row(s) affected

Query 1

```

1 • INSERT INTO WORKER.EMPLOYEETRAINING
2     VALUES(1,2),
3     (1,3),
4     (2,2),
5     (2,4),
6     (2,5),
7     (3,2),
8     (3,6),
9     (3,7),
10    (4,2),
11    (4,8),
12    (4,9),
13    (5,2),
14    (5,10),
15    (6,2),
16    (6,11));

```

Output

Action Output			
#	Time	Action	Message
10	17:37:09	INSERT INTO WORKER.EQUIPMENT VALUES(1,'Notebook Computers'), (2,'Headsets'), (3,'Computer Monitors'), (4,'Laptops'), (5,'Smartphones')	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0
11	17:37:42	SELECT * FROM WORKER.EQUIPMENT ORDER BY EQUIPMENTID LIMIT 0, 1000	8 row(s) returned
12	17:39:32	CREATE TABLE WORKER.EMPLOYEEEQUIPMENT (EMPLOYEEID INTEGER NOT NULL, EQUIPMENTID I...)	0 row(s) affected
13	17:40:23	INSERT INTO WORKER.EMPLOYEEEQUIPMENT VALUES(1,1), (2,1), (2,3), (3,1), (3,2), (3,3), (4,1), (4,2), (5,1), (5,2), (5,3), (6,1), (6,2), (6,3), (7,1), (7,2), (7,3), (8,1), (8,2), (8,3), (9,1), (9,2), (9,3), (10,1), (10,2), (10,3), (11,1), (11,2), (11,3), (12,1), (12,2), (12,3), (13,1), (13,2), (13,3), (14,1), (14,2), (14,3), (15,1), (15,2), (15,3), (16,1), (16,2), (16,3)	13 row(s) affected Records: 13 Duplicates: 0 Warnings: 0
14	17:40:54	SELECT * FROM WORKER.EMPLOYEEEQUIPMENT ORDER BY EMPLOYEEID, EQUIPMENTID LIMIT 0, 1000	13 row(s) returned
15	17:42:27	CREATE TABLE WORKER.TRAINING (TRAININGID INTEGER NOT NULL, TRAININGNAME VARCHAR(50))	0 row(s) affected
16	17:49:45	INSERT INTO WORKER.TRAINING VALUES(1,'COVID-19 Awareness and Protection Training'), (2,'Code of Conduct'), (3,'Data Privacy'), (4,'Employee Benefits'), (5,'Health and Safety'), (6,'Leadership'), (7,'Performance Management'), (8,'Productivity'), (9,'Teamwork'), (10,'Time Management'), (11,'Workplace Safety')	11 row(s) affected Records: 11 Duplicates: 0 Warnings: 0
17	17:50:20	SELECT * FROM WORKER.TRAINING ORDER BY TRAININGID LIMIT 0, 1000	11 row(s) returned
18	17:53:40	CREATE TABLE WORKER.EMPLOYEETRAINING (EMPLOYEEID INTEGER NOT NULL, TRAININGID INT...)	0 row(s) affected
19	17:54:22	INSERT INTO WORKER.EMPLOYEETRAINING VALUES(1,2), (1,3), (2,2), (2,4), (2,5), (3,2), (3,6), (3,7), (4,2), (4,8), (4,9), (5,2), (5,10), (6,2), (6,11)	15 row(s) affected Records: 15 Duplicates: 0 Warnings: 0

Query 1

```

1 •   SELECT * FROM WORKER.EMPLOYEETRAINING
2   ORDER BY EMPLOYEEID,TRAININGID;

```

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

EMPLOYEEID	TRAININGID
1	2
1	3
2	2
2	4
2	5
3	2
3	6
3	7
4	2
4	8
4	9
5	2
5	10
6	2
6	11
*	NULL
*	NULL

EMPLOYEETRAINING 7

Action Output

#	Time	Action	Message
16	17:49:45	INSERT INTO WORKER.TRAINING VALUES(1,'COVID-19 Awareness and Protection Training'), (2,'Code of ...	11 row(s) affected Records: 11 Duplicates: 0 Warnings: 0
17	17:50:20	SELECT * FROM WORKER.TRAINING ORDER BY TRAININGID LIMIT 0, 1000	11 row(s) returned
18	17:53:40	CREATE TABLE WORKER.EMPLOYEETRAINING (EMPLOYEEID INTEGER NOT NULL, TRAININGID INT ...	0 row(s) affected
19	17:54:22	INSERT INTO WORKER.EMPLOYEETRAINING VALUES(1,2), (1,3), (2,2), (2,4), (2,5), (3,2), (3,6), (3,7), (4,2), ...	15 row(s) affected Records: 15 Duplicates: 0 Warnings: 0
20	17:55:04	SELECT * FROM WORKER.EMPLOYEETRAINING ORDER BY EMPLOYEEID,TRAININGID LIMIT 0, 1000	15 row(s) returned

Q8. Create the Trainer table in the Worker database (table must be based on Physical Model Provided in the Assignment folder). (a) Columns, Primary Key (PK), Data Type & length, and NULL/NOT NULL need to be implemented, as provided in the Physical Model. (b) Show the table definition (DDL) that you implemented. (c) Insert the complete set of data provided in the Excel file (uploaded in the Assignment folder) and show the insert statements used. (d) Retrieve the data from the Trainer table by using the SELECT * statement and order by PK column(s). Show the output. Make sure you show the print screen of the complete set of the rows and columns. The rows must be ordered by PK column(s).

Query 1

```
1 • CREATE TABLE WORKER.TRAINER (
2     TRAINERID INTEGER NOT NULL,
3     TRAININGID INTEGER NOT NULL,
4     TRAINERFIRSTNAME VARCHAR(20) NOT NULL,
5     TRAINERLASTNAME VARCHAR(20),
6     PRIMARY KEY (TRAINERID));
7
8
```

Output

Action Output	#	Time	Action	Message
	39	18:17:34	SELECT * FROM WORKER.TRAINER LIMIT 0, 1000	Error Code: 1146. Table 'workertrainer' doesn't exist
	40	18:25:53	CREATE TABLE WORKER.TRAINER (TRAINERID INTEGER NOT NULL, TRAININGID INTEGER NOT N...	0 row(s) affected

Query 1

```
1 • INSERT INTO WORKER.TRAINER
2     VALUES(1,1,'James','Smith'),
3     (2,1,'Johnny','Khor'),
4     (3,2,'Michael','Smith'),
5     (4,3,'Maria','Garcia'),
6     (5,4,'John',NULL),
7     (6,4,'Paul','Deitel'),
8     (7,5,'Mike','Taylor'),
9     (8,5,'Avinash','Navlani'),
10    (9,6,'Robert','Smith'),
11    (10,7,'Maria','Rodriguez'),
12    (11,8,'Mike','Donlon'),
13    (12,9,'Kathy','Corby'),
14    (13,10,'Mary','Garcia'),
15    (14,10,'Vanessa',NULL),
16    (15,11,'Jordan',NULL),
17    (16,11,'Maria','Hernandez');
```

Output

Action Output	#	Time	Action	Message
	40	18:25:53	CREATE TABLE WORKER.TRAINER (TRAINERID INTEGER NOT NULL, TRAININGID INTEGER NOT N...	0 row(s) affected
	41	18:26:57	INSERT INTO WORKER.TRAINER VALUES(1,1,'James','Smith'), (2,1,'Johnny','Khor'), (3,2,'Michael','Smith'), (...	16 row(s) affected Records: 16 Duplicates: 0 Warnings: 0

Query 1 ×

1 • SELECT * FROM WORKER.TRAINER
2 ORDER BY TRAINERID;

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

TRAINERID	TRAININGID	TRAINERFIRSTNAME	TRAINERLASTNAME
1	1	James	Smith
2	1	Johnny	Khor
3	2	Michael	Smith
4	3	Maria	Garcia
5	4	John	NULL
6	4	Paul	Deitel
7	5	Mike	Taylor
8	5	Avinash	Navlani
9	6	Robert	Smith
10	7	Maria	Rodriguez
11	8	Mike	Donlon
12	9	Kathy	Corby
13	10	Mary	Garcia
14	10	Vanessa	NULL
15	11	Jordan	NULL
16	11	Maria	Hernandez
NULL	NULL	NULL	NULL

TRAINER 15 ×

Output

#	Time	Action	Message
41	18:26:57	INSERT INTO WORKER.TRAINER VALUES(1,1,'James','Smith'), (2,1,'Johnny','Khor'), (3,2,'Michael','Smith'), (...)	16 row(s) affected Records: 16 Duplicates: 0 Warnings: 0
42	18:27:28	SELECT * FROM WORKER.TRAINER ORDER BY TRAINERID LIMIT 0, 1000	16 row(s) returned

Q9. Retrieve the data from the Trainer table by using the SELECT * statement with filter, WHERE TrainerLastName IS NULL. Show the output. Make sure you show the print screen of the complete set of the rows and columns. The rows must be ordered by PK column(s).

The screenshot shows a database interface with three main panes. The top pane is titled "Query 1" and contains the SQL code:

```
1 •  SELECT * FROM WORKER.TRAINER
2   WHERE TRAINERLASTNAME IS NULL
3   ORDER BY TRAINERID;
```

The middle pane is titled "Result Grid" and displays a table with four columns: TRAINERID, TRAININGID, TRAINERFIRSTNAME, and TRAINERLASTNAME. The data is as follows:

TRAINERID	TRAININGID	TRAINERFIRSTNAME	TRAINERLASTNAME
5	4	John	HULL
14	10	Vanessa	HULL
15	11	Jordan	HULL
NULL	NULL	NULL	NULL

The bottom pane is titled "TRAINER 16" and shows the "Action Output" log:

#	Time	Action	Message
42	18:27:28	SELECT * FROM WORKER.TRAINER ORDER BY TRAINERID LIMIT 0, 1000	16 row(s) returned
43	18:28:00	SELECT * FROM WORKER.TRAINER WHERE TRAINERLASTNAME IS NULL ORDER BY TRAINERID LI...	3 row(s) returned

Q10. By using the SHOW tables statements, show the list of tables you have created in the Worker database. Show the screenshot of the execution of the above statements and results. Make sure you show the print screen of the complete set of the rows and columns. The rows must be ordered by PK column(s).

The screenshot shows the MySQL Workbench interface with three main panes:

- Query 1:** Contains the SQL command `SHOW TABLES`. The results pane below it displays a table titled "Tables_in_worker" with the following data:

Tables_in_worker
department
employee
employeeequipment
employeetraining
equipment
trainer
training

- Result 19:** Shows the history of actions taken. It lists two entries: row 50 at 18:36:53 and row 51 at 18:37:31, both showing the execution of `SHOW TABLES`. The message column indicates "7 row(s) returned" for each entry.

Q11. Write a single-row subquery to display EmployeeID, FirstName, LastName, and HireDate of employees hired after employee Vivek Pandey. Sort the results by EmployeeID. Make sure you show the print screen of the complete set of the rows, and columns as specified.

The screenshot shows the Oracle SQL Developer interface with three main panes:

- Query 1** pane: Contains the SQL query:

```
1 •  SELECT EMPLOYEEID, FIRSTNAME, LASTNAME, HIREDATE
2   FROM WORKER.EMPLOYEE
3  WHERE HIREDATE > (SELECT HIREDATE FROM WORKER.EMPLOYEE WHERE FIRSTNAME = 'Vivek' AND LASTNAME = 'Pandey')
```
- Result Grid** pane: Displays the query results in a grid format. The columns are EMPLOYEEID, FIRSTNAME, LASTNAME, and HIREDATE. The data is as follows:

	EMPLOYEEID	FIRSTNAME	LASTNAME	HIREDATE
▶	2	John	Wilson	2017-03-19
▶	4	Nola	Davis	2016-03-23
▶	5	Kathy	Cooper	2011-11-18
▶	6	Tom	Harper	2010-04-11
*	NULL	NULL	NULL	NULL

- EMPLOYEE 20** pane: Shows the output of the last executed command, which was a SELECT statement. The output table has columns #, Time, Action, and Message. The data is as follows:

#	Time	Action	Message
51	18:37:31	SHOW TABLES	7 row(s) returned
52	18:39:51	SELECT EMPLOYEEID, FIRSTNAME, LASTNAME, HIREDATE FROM WORKER.EMPLOYEE WHERE HIR...	4 row(s) returned

Q12. Write a query to display FirstName, LastName, and TrainingName for employee Tom Harper. Sort the results by TrainingName. Make sure you show the print screen of the complete set of the rows, and columns as specified.

Query 1

```
1 •  SELECT T1.FIRSTNAME, T1.LASTNAME, T3.TRAININGNAME
2   FROM WORKER.EMPLOYEE T1
3   LEFT JOIN WORKER.EMPLOYEETRAINING T2
4     ON T1.EMPLOYEEID = T2.EMPLOYEEID
5   LEFT JOIN WORKER.TRAINING T3
6     ON T2.TRAININGID = T3.TRAININGID
7   WHERE T1.FIRSTNAME = 'Tom' AND T1.LASTNAME = 'Harper'
8   ORDER BY T3.TRAININGNAME
```

Result Grid | Filter Rows: _____ | Export: _____ | Wrap Cell Content: _____

	FIRSTNAME	LASTNAME	TRAININGNAME
▶	Tom	Harper	Code of Conduct Training
	Tom	Harper	Travel and Expense Management

Result 21

Output

Action Output

#	Time	Action	Message
52	18:39:51	SELECT EMPLOYEEID, FIRSTNAME, LASTNAME, HIREDATE FROM WORKER.EMPLOYEE WHERE HIR...	4 row(s) returned
53	18:47:42	SELECT T1.FIRSTNAME, T1.LASTNAME, T3.TRAININGNAME FROM WORKER.EMPLOYEE T1 LEFT JOI...	2 row(s) returned

Q13. Write a query to display the complete list of Trainings, and trainers (first and last name) available for each training. Sort the output by TrainingName and Trainers' first and last name. Make sure you show the print screen of the complete set of the rows, and columns as specified.

Query 1

```

1 •  SELECT T1.TRAININGNAME AS TRAINING, T2.TRAINERFIRSTNAME, T2.TRAINERLASTNAME
2   FROM WORKER.TRAINING T1
3   LEFT JOIN WORKER.TRAINER T2
4     ON T1.TRAININGID = T2.TRAININGID
5   ORDER BY T1.TRAININGNAME, T2.TRAINERFIRSTNAME, T2.TRAINERLASTNAME

```

Result Grid

TRAINING	TRAINERFIRSTNAME	TRAINERLASTNAME
Code of Conduct Training	Michael	Smith
COVID-19 Awareness and Protection Training	James	Smith
COVID-19 Awareness and Protection Training	Johnny	Khor
Employee Relations	Mary	Garcia
Employee Relations	Vanessa	NULL
Intro to Python	John	NULL
Intro to Python	Paul	Deitel
Machine Learning	Avinash	Navlani
Machine Learning	Mike	Taylor
Microsoft Certifications	Robert	Smith
Product Knowledge	Mike	Donlon
Safety Traning	Maria	Garcia
Sales Skills	Kathy	Corby
Security and Privacy	Maria	Rodriguez
Travel and Expense Management	Jordan	NULL
Travel and Expense Management	Maria	Hernandez

Result 22

Action Output

#	Time	Action	Message
53	18:47:42	SELECT T1.FIRSTNAME, T1.LASTNAME, T3.TRAININGNAME FROM WORKER.EMPLOYEE T1 LEFT JOI...	2 row(s) returned
54	18:49:30	SELECT T1.TRAININGNAME AS TRAINING, T2.TRAINERFIRSTNAME, T2.TRAINERLASTNAME FROM ...	16 row(s) returned

Q14. Write a multiple-row subquery to display EmployeeID, FirstName, LastName, and HireDate of employees who work for the following departments: Accounting and Finance, IT Support, and Production. Sort the results by EmployeeID. Make sure you show the print screen of the complete set of the rows, and columns as specified.

Query 1

```
1 •  SELECT EMPLOYEEID, FIRSTNAME, LASTNAME, HIREDATE
2   FROM WORKER.EMPLOYEE
3   WHERE DEPARTMENTID IN
4     (SELECT DISTINCT DEPARTMENTID
5      FROM WORKER.DEPARTMENT
6      WHERE DEPARTMENTNM IN ('Accounting and Finance','IT Support', 'Production'))
7   ORDER BY EMPLOYEEID
```

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

	EMPLOYEEID	FIRSTNAME	LASTNAME	HIREDATE
▶	1	Andy	Wong	2001-01-15
3	Vivek	Pandey		2003-11-15
6	Tom	Harper		2010-04-11
*	NULL	NULL	NULL	NULL

Q15. Write a query to display the EmployeeID, FirstName, LastName, EquipmentName, and EquipmentCostAmount for one of the employees. Sort the results by EmployeeID. Make sure you show the print screen of the complete set of the rows, and columns as specified.

Query 1

```
1 •   SELECT T1.EMPLOYEEID, T1.FIRSTNAME, T1.LASTNAME, T3.EQUIPMENTNAME, T3.EQUIPMENTCOSTAMOUNT
2     FROM WORKER.EMPLOYEE T1
3     LEFT JOIN WORKER.EMPLOYEEEQUIPMENT T2
4       ON T1.EMPLOYEEID = T2.EMPLOYEEID
5     LEFT JOIN WORKER.EQUIPMENT T3
6       ON T2.EQUIPMENTID = T3.EQUIPMENTID
7     WHERE T1.EMPLOYEEID=3
8     ORDER BY T1.EMPLOYEEID
```

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

	EMPLOYEEID	FIRSTNAME	LASTNAME	EQUIPMENTNAME	EQUIPMENTCOSTAMOUNT
▶	3	Vivek	Pandey	Notebook Computers	23.60
	3	Vivek	Pandey	Headsets	45.70
	3	Vivek	Pandey	Computer Monitor	67.80

Q16. Write a query to display the TrainingID, TrainingName, TrainerID, TrainerFirstName, and TrainerLastName with the trainers who did not provide their last name. Sort the results by TrainingID and TrainerID. Make sure you show the print screen of the complete set of the rows, and columns as specified.

Query 1

```

1 •  SELECT T1.TRAININGID, T2.TRAININGNAME, T1.TRAINERID, T1.TRAINERFIRSTNAME, T1.TRAINERLASTNAME
2   FROM WORKER.TRAINER T1
3   LEFT JOIN WORKER.TRAINING T2
4     ON T1.TRAININGID = T2.TRAININGID
5   WHERE TRAINERLASTNAME IS NULL
6   ORDER BY T1.TRAININGID, T1.TRAINERID

```

Result Grid

TRAININGID	TRAININGNAME	TRAINERID	TRAINERFIRSTNAME	TRAINERLASTNAME
4	Intro to Python	5	John	HULL
10	Employee Relations	14	Vanessa	HULL
11	Travel and Expense Management	15	Jordan	HULL

Result 25

Output

#	Time	Action	Message
56	18:53:06	SELECT T1.EMPLOYEEID, T1.FIRSTNAME, T1.LASTNAME, T3.EQUIPMENTNAME, T3.EQUIPMENTCOS...	13 row(s) returned
57	18:55:45	SELECT T1.TRAININGID, T2.TRAININGNAME, T1.TRAINERID, T1.TRAINERFIRSTNAME, T1.TRAINERL...	3 row(s) returned

Q17. Write a query to display the distinct list of equipments used by the current employees. Sort the output by EquipmentName. Make sure you show the print screen of the complete set of the rows, and columns as specified.

Query 1

```

1 •  SELECT DISTINCT T3.EQUIPMENTNAME
2   FROM WORKER.EMPLOYEE T1
3   LEFT JOIN WORKER.EMPLOYEEEQUIPMENT T2
4     ON T1.EMPLOYEEID = T2.EMPLOYEEID
5   LEFT JOIN WORKER.EQUIPMENT T3
6     ON T2.EQUIPMENTID = T3.EQUIPMENTID
7   ORDER BY T3.EQUIPMENTNAME

```

Result Grid | Filter Rows: _____ | Export: | Wrap Cell Content:

EQUIPMENTNAME
Computer Monitor
Headsets
Notebook Computers

Result 26

Output:

Action Output

#	Time	Action	Message
57	18:55:45	SELECT T1.TRAININGID, T2.TRAININGNAME, T1.TRAINERID, T1.TRAINERFIRSTNAME, T1.TRAINERL...	3 row(s) returned
58	18:57:20	SELECT DISTINCT T3.EQUIPMENTNAME FROM WORKER.EMPLOYEE T1 LEFT JOIN WORKER.EMPLO...	3 row(s) returned

Q18. Write a query to display the FirstName, LastName, TrainingName, and trainer(s) (with first and last name in two separate columns) for one of the employees. Sort the results by TrainingName and TrainerFirstName. Make sure you show the print screen of the complete set of the rows, and columns as specified.

Query 1

```
2  FROM WORKER.EMPLOYEE T1
3  LEFT JOIN WORKER.EMPLOYEETRAINING T2
4  ON T1.EMPLOYEEID = T2.EMPLOYEEID
5  LEFT JOIN WORKER.TRAINING T3
6  ON T2.TRAININGID = T3.TRAININGID
7  LEFT JOIN WORKER.TRAINER T4
8  ON T3.TRAININGID = T4.TRAININGID
9  WHERE T1.EMPLOYEEID=3
10 ORDER BY T3.TRAININGNAME, T4.TRAINERFIRSTNAME
```

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

	EMPLOYEEID	FIRSTNAME	LASTNAME	TRAININGNAME	TRAINERFIRSTNAME	TRAINERLASTNAME
▶	3	Vivek	Pandey	Code of Conduct Training	Michael	Smith
	3	Vivek	Pandey	Microsoft Certifications	Robert	Smith
	3	Vivek	Pandey	Security and Privacy	Maria	Rodriguez

Q19. Write a query to display the EmployeeID, FirstName, LastName, DepartmentID, DepartmentName, EquipmentID, EquipmentName for all employees. Sort the results by EmployeeID, DepartmentID, and EquipmentID. Make sure you show the print screen of the complete set of the rows, and columns as specified.

Query 1 x

```

1 •  SELECT T1.EMPLOYEEID, T1.FIRSTNAME, T1.LASTNAME, T1.DEPARTMENTID, T2.DEPARTMENTNM, T3.EQUIPMENTID, T4.EQUIPMENTNAME
2   FROM WORKER.EMPLOYEE T1
3   LEFT JOIN WORKER.DEPARTMENT T2
4     ON T1.DEPARTMENTID = T2.DEPARTMENTID
5   LEFT JOIN WORKER.EMPLOYEEEQUIPMENT T3
6     ON T1.EMPLOYEEID = T3.EMPLOYEEID LEFT JOIN WORKER.EQUIPMENT T4 ON T3.EQUIPMENTID = T4.EQUIPMENTID
7   ORDER BY T1.EMPLOYEEID, T1.DEPARTMENTID, T3.EQUIPMENTID

```

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

EMPLOYEEID	FIRSTNAME	LASTNAME	DEPARTMENTID	DEPARTMENTNM	EQUIPMENTID	EQUIPMENTNAME
1	Andy	Wong	2	Production	1	Notebook Computers
2	John	Wilson	1	Research & Development	1	Notebook Computers
2	John	Wilson	1	Research & Development	3	Computer Monitor
3	Vivek	Pandey	3	IT Support	1	Notebook Computers
3	Vivek	Pandey	3	IT Support	2	Headsets
3	Vivek	Pandey	3	IT Support	3	Computer Monitor
4	Nola	Davis	7	Sales & Marketing	1	Notebook Computers
4	Nola	Davis	7	Sales & Marketing	2	Headsets
5	Kathy	Cooper	8	Human Resource Management	1	Notebook Computers
5	Kathy	Cooper	8	Human Resource Management	2	Headsets
5	Kathy	Cooper	8	Human Resource Management	3	Computer Monitor
6	Tom	Harper	9	Accounting and Finance	1	Notebook Computers
6	Tom	Harper	9	Accounting and Finance	3	Computer Monitor

Result 28 x

Output ::

Action Output

#	Time	Action	Message
59	19:01:42	SELECT T1.EMPLOYEEID, T1.FIRSTNAME, T1.LASTNAME, T3.TRAININGNAME, T4.TRAINERFIRSTNA...	19 row(s) returned
60	19:04:53	SELECT T1.EMPLOYEEID, T1.FIRSTNAME, T1.LASTNAME, T1.DEPARTMENTID, T2.DEPARTMENTNM, ...	13 row(s) returned

Q20. Write a query to display the EmployeeID, FirstName, LastName, DepartmentID, DepartmentName, TrainingID, TrainingName for all employees. Sort the results by EmployeeID, DepartmentID, and TrainingID. Make sure you show the print screen of the complete set of the rows, and columns as specified.

Query 1

```

1 •  SELECT T1.EMPLOYEEID, T1.FIRSTNAME, T1.LASTNAME, T1.DEPARTMENTID, T2.DEPARTMENTNM, T3.TRAININGID, T4.TRAININGNAME
2   FROM WORKER.EMPLOYEE T1
3   LEFT JOIN WORKER.DEPARTMENT T2
4     ON T1.DEPARTMENTID = T2.DEPARTMENTID
5   LEFT JOIN WORKER.EMPLOYEETRAINING T3
6     ON T1.EMPLOYEEID = T3.EMPLOYEEID
7   LEFT JOIN WORKER.TRAINING T4
8     ON T3.TRAININGID = T4.TRAININGID
9   ORDER BY T1.EMPLOYEEID, T1.DEPARTMENTID, T3.TRAININGID

```

Result Grid

EMPLOYEEID	FIRSTNAME	LASTNAME	DEPARTMENTID	DEPARTMENTNM	TRAININGID	TRAININGNAME
1	Andy	Wong	2	Production	2	Code of Conduct Training
1	Andy	Wong	2	Production	3	Safety Traning
2	John	Wilson	1	Research & Development	2	Code of Conduct Training
2	John	Wilson	1	Research & Development	4	Intro to Python
2	John	Wilson	1	Research & Development	5	Machine Learning
3	Vivek	Pandey	3	IT Support	2	Code of Conduct Training
3	Vivek	Pandey	3	IT Support	6	Microsoft Certifications
3	Vivek	Pandey	3	IT Support	7	Security and Privacy
4	Nola	Davis	7	Sales & Marketing	2	Code of Conduct Training
4	Nola	Davis	7	Sales & Marketing	8	Product Knowledge
4	Nola	Davis	7	Sales & Marketing	9	Sales Skills
5	Kathy	Cooper	8	Human Resource Mana...	2	Code of Conduct Training
5	Kathy	Cooper	8	Human Resource Mana...	10	Employee Relations
6	Tom	Harper	9	Accounting and Finance	2	Code of Conduct Training
6	Tom	Harper	9	Accounting and Finance	11	Travel and Expense Man...

Result 29

Output

Action Output			
#	Time	Action	Message
60	19:04:53	SELECT T1.EMPLOYEEID, T1.FIRSTNAME, T1.LASTNAME, T1.DEPARTMENTID, T2.DEPARTMENTNM, ...	13 row(s) returned
61	19:07:20	SELECT T1.EMPLOYEEID, T1.FIRSTNAME, T1.LASTNAME, T1.DEPARTMENTID, T2.DEPARTMENTNM, ...	15 row(s) returned