```
1 SELECT * from Items_ordered
2 where item = 'Tent';
```

customerid	order_date	item	quantity	price
10439	18-Sep-1999	Tent	1	88
10438	18-Jan-2000	Tent	1	79.99

```
1 select AVG(price) from items_ordered
2 where order_date LIKE '%Dec%';
3
```

```
AVG(price)
174.3125
```

- 1 SELECT item, MAX(price), MIN(price)
- 2 FROM items_ordered
- 3 GROUP BY item;

item	MAX(price)	MIN(price)
Bicycle	380.5	380.5
Canoe	280	280
Canoe paddle	40	40
Compass	8	8
Ear Muffs	12.5	12.5
Flashlight	28	4.5
Helmet	22	22
Hoola Hoop	14.75	14.75
Inflatable Mattress	38	38
Lantern	29	16
Lawnchair	32	32
Life Vest	125	125
Parachute	1250	1250
Pillow	8.5	8.5
Pocket Knife	22.38	22.38
Pogo stick	28	28
Raft	58	58
Rain Coat	18.3	18.3
Shovel	16.75	16.75
Skateboard	33	33

```
1 SELECT item, MAX(price), MIN(price)
2 from items_ordered
3 group by item
4 having MAX(price) > 190.00;
```

item	MAX(price)	MIN(price)	
Bicycle	380.5	380.5	
Canoe	280	280	
Parachute	1250	1250	
Unicycle	192.5	180.79	

1 select lastname, firstname, city 2 from customers

3 order by lastname desc;

lastname	firstname	city
Smith	Kevin	Durango
Schultz	Ginger	Pocatello
Sanchez	Anthony	Winslow
Sakahara	Linda	Nogales
Moore	Isabela	Yuma
Mendoza	Kelly	Kailua
Keller	Elroy	Snoqualmie
Jones	Lisa	Oshkosh
Howell	Michael	Tillamook
Howell	Mary Ann	Charleston
Gray	John	Lynden
Graham	Sarah	Greensboro
Giles	Conrad	Telluride
Davids	Donald	Gila Bend
Dalton	Shawn	Cannon Beach
Cleaver	Elroy	Globe
Brown	Leroy	Pinetop

```
1 select price, item
2 from items_ordered
3 where (item LIKE '%S') or (item LIKE '%P') or (item LIKE '%F');
```

price	item	
25.5	Ski Poles	
45	Snow Shoes	
14.75	Hoola Hoop	
38	Inflatable Mattress	
8	Compass	
12.5	Ear Muffs	

```
1 SELECT firstname, city, state
2 from customers
3 where state in ('Arizona', 'Washington', 'Oklahoma', 'Colorado', 'Hawaii');
```

firstname	city	state
John	Lynden	Washington
Leroy	Pinetop	Arizona
Elroy	Snoqualmie	Washington
Kelly	Kailua	Hawaii
Anthony	Winslow	Arizona
Elroy	Globe	Arizona
Donald	Gila Bend	Arizona
Linda	Nogales	Arizona
Kevin	Durango	Colorado
Conrad	Telluride	Colorado
Isabela	Yuma	Arizona

```
select customers.customerid, customers.firstname, customers.lastname, items_o
from items_ordered, customers
order by customers.state desc;
```

customerid	firstname	lastname	order_date	item	price
10315	Lisa	Jones	30-Jun-1999	Pogo stick	28
10315	Lisa	Jones	30-Jun-1999	Raft	58
10315	Lisa	Jones	01-Jul-1999	Skateboard	33
10315	Lisa	Jones	01-Jul-1999	Life Vest	125
10315	Lisa	Jones	06-Jul-1999	Parachute	1250
10315	Lisa	Jones	27-Jul-1999	Umbrella	4.5
10315	Lisa	Jones	13-Aug-1999	Unicycle	180.79
10315	Lisa	Jones	14-Aug-1999	Ski Poles	25.5
10315	Lisa	Jones	18-Aug-1999	Rain Coat	18.3
10315	Lisa	Jones	01-Sep-1999	Snow Shoes	45
10315	Lisa	Jones	18-Sep-1999	Tent	88
10315	Lisa	Jones	19-Sep-1999	Lantern	29
10315	Lisa	Jones	28-Oct-1999	Sleeping Bag	89.22
10315	Lisa	Jones	01-Nov-1999	Umbrella	6.75
10315	Lisa	Jones	02-Nov-1999	Pillow	8.5
10315	Lisa	Jones	01-Dec-1999	Helmet	22
10315	Lisa	Jones	15-Dec-1999	Bicycle	380.5
10315	Lisa	Jones	22-Dec-1999	Canoe	280
10315	Lisa	Jones	30-Dec-1999	Hoola Hoop	14.75
10315	Lisa	Jones	01-Jan-2000	Flashlight	28

```
1 SELECT customerid,order_date,item from Items_ordered
2 where item LIKE '%5';
```

customerid	order_date	item
10439	14-Aug-1999	Ski Poles
10449	01-Sep-1999	Snow Shoes
10299	18-Jan-2000	Inflatable Mattress
10315	02-Feb-2000	Compass
10298	01-Apr-2000	Ear Muffs

2	ems_ordered;	

count(*)			
32			

```
1 SELECT customerid, count(customerid), sum(price)
2 from items_ordered
3 group by customerid
4 having count(customerid) > 1;
```

customerid	count(customerid)	sum(price)
10101	6	320.75
10298	5	118.88
10299	2	1288
10330	3	72.75
10410	2	281.72
10438	3	95.24
10439	2	113.5
10449	6	930.79

1 select item,price 2 from items_ordered 3 where price > 10.00 4 order by price;

item	price
Ear Muffs	12.5
Hoola Hoop	14.75
Lantern	16
Shovel	16.75
Rain Coat	18.3
Helmet	22
Pocket Knife	22.38
Ski Poles	25.5
Pogo stick	28
Flashlight	28
Lantern	29
Lawnchair	32
Skateboard	.33
Inflatable Mattress	38
Canoe paddle	40
Snow Shoes	45
Raft	58
Tent	79.99
Tent	88
Sleeping Bag	88.7
Classing Dag	00.33

1	SELECT	distinct	item	from	Items_ordered;

item	
Pogo stick	
Raft	
Skateboard	
Life Vest	
Parachute	
Umbrella	
Unicycle	
Ski Poles	
Rain Coat	
Snow Shoes	
Tent	
Lantern	
Sleeping Bag	
Pillow	
Helmet	
Bicycle	
Canoe	
Hoola Hoop	
Flashlight	
Inflatable Mattress	
Lawnchair	

```
select MIN(price) from items_ordered
where item = 'Tent';
3
```

```
MIN(price)
79.99
```

```
1 SELECT customerid, count(customerid), sum(price)
2 FROM items_ordered
```

3 GROUP BY customerid;

customerid	count(customerid)	sum(price)
10101	6	320.75
10298	5	118.88
10299	2	1288
10315	1	8
10330	3	72.75
10339	1	4.5
10410	2	281.72
10413	1	32
10438	3	95.24
10439	2	113.5
10449	6	930.79

Create Table Exercise

You have just started a new company. It is time to hire some employees. You will need to create a myemployees table that will contain the following information about your new employees: firstname, lastname, title, age, and salary. Once it's created successfully, go to the "Insert" lesson.

Show Answer

Enter SQL Statement here:

```
1 create table myemployees
2 (firstname,
3 lastname,
4 title,
5 age,
6 salary);
```

Execute Query

table myemployees already exists

1. Select all columns for everyone in your employee table.

Show Answer

2. Select all columns for everyone with a salary over 30000.

Show Answer

3. Select first and last names for everyone that's under 30 years old.

Show Answer

4. Select first name, last name, and salary for anyone with "Programmer" in their title.

Show Answer

5. Select all columns for everyone whose last name contains "ebe".

Show Answer

6. Select the first name for everyone whose first name equals "Potsy".

Show Answer

7. Select all columns for everyone over 80 years old.

Show Answer

8. Select all columns for everyone whose last name ends in "ith".

Show Answer

Create at least 5 of your own select statements based on specific information that you'd like to retrieve.

Enter SQL Statement here:

1	select * from myemployees;
2	
1000	

firstname	lastname	title	age	salary
Jonie	Weber	Secretary	28	19500.00
Potsy	Weber	Programmer	32	45300.00
Dirk	Smith	Programmer II	45	75020.00

```
update myemployees
set lastname = 'Weber-Willians'
where lastname = 'Willians';
select lastname from myemployees;
```

```
lastname
Weber-Willians
Weber-Willians
Smith
```

Delete statement exercises

(Use the select statement to verify your deletes):

1. Jonie Weber-Williams just quit, remove her record from the table.

Show Answer

2. It's time for budget cuts. Remove all employees who are making over 70000 dollars.

Show Answer

Create at least two of your own delete statements, and then issue a command to delete all records from the table.

Enter SQL Statement here:

```
1 delete from myemployees
2 where lastname = 'Weber-Willians';
3
4 select * from myemployees;
```

firstname	lastname	title	age	salary
Dirk	Smith	Administrative Assistant	47	75020.00

The drop table command is used to delete a table and all rows in the table.

To delete an entire table including all of its rows, issue the **drop table** command followed by the tablename. **drop table** is different from deleting all of the records in the table. Deleting all of the records in the table leaves the table including column and constraint information. Dropping the table removes the table definition as well as all of its rows.

```
drop table "tablename"
```

Example:

```
drop table myemployees;
```

Drop Table exercises

1. Drop your employee table.

Enter SQL Statement here:

```
1 drop table 'myemployees'
```

Select statement exercises

	monte to

1. Display the first name and age for everyone that's in the table.

Show Answer

2. Display the first name, last name, and city for everyone that's not from Payson.

Show Answer

3. Display all columns for everyone that is over 40 years old.

Show Answer

4. Display the first and last names for everyone whose last name ends in an "ay".

Show Answer

5. Display all columns for everyone whose first name equals "Mary".

Show Answer

6. Display all columns for everyone whose first name contains "Mary".

Show Answer

Enter SQL Statement here:

1 select	first,age	from empinf	0;		

first	age	
John	45	
Mary	25	
Eric	32	
Mary Ann	32	

2. Select all columns for everyone with a salary over 30000.

Show Answer

3. Select first and last names for everyone that's under 30 years old.

Show Answer

 $4. \ Select \ first \ name, \ last \ name, \ and \ salary \ for \ anyone \ with \ "Programmer" \ in \ their \ title.$

Show Answer

5. Select all columns for everyone whose last name contains "ebe".

Show Answer

6. Select the first name for everyone whose first name equals "Potsy".

Show Answer

7. Select all columns for everyone over 80 years old.

Show Answer

8. Select all columns for everyone whose last name ends in "ith".

Show Answer

Create at least 5 of your own select statements based on specific information that you'd like to retrieve.

Enter SQL Statement here:

```
1 select * from myemployees
2 where salary > 30000;
```

firstname	lastname	title	age	salary
Jonie	Weber	Secretary	28	19500.00
Potsy	Weber	Programmer	32	45300.00
Dirk	Smith	Programmer II	45	75020.00
Potsy	Weber	Programmer	32	45300.00
Dirk	Smith	Programmer II	45	75020.00

```
update myemployees
set age = age+1
where lastname = 'Smith';
select age from myemployees;
```

age			
28			
32			
47			

2. It's time for budget cuts. Remove all employees who are making over 70000 dollars.

Show Answer

Create at least two of your own delete statements, and then issue a command to delete all records from the table.

Enter SQL Statement here:

```
1 delete from myemployees
2 where salary > '70000';
3
4 select * from myemployees;
```

Select statement exercises

Enter select statements to:

1. Display the first name and age for everyone that's in the table.

Show Answer

2. Display the first name, last name, and city for everyone that's not from Payson.

Show Answer

3. Display all columns for everyone that is over 40 years old.

Show Answer

4. Display the first and last names for everyone whose last name ends in an "ay".

Show Answer

5. Display all columns for everyone whose first name equals "Mary".

Show Answer

6. Display all columns for everyone whose first name contains "Mary".

Show Answer

Enter SQL Statement here:

```
1 select first,last,city from empinfo
2 where city <> 'Payson';
```

first	last	city	
Eric	Edwards	San Diego	
Mary Ann	Edwards	Phoenix	
Ginger	Howell	Cottonwood	
Sebastian	Smith	Gila Bend	

3. Select first and last names for everyone that's under 30 years old.

Show Answer

4. Select first name, last name, and salary for anyone with "Programmer" in their title.

Show Answer

5. Select all columns for everyone whose last name contains "ebe".

Show Answer

6. Select the first name for everyone whose first name equals "Potsy".

Show Answer

7. Select all columns for everyone over 80 years old.

Show Answer

8. Select all columns for everyone whose last name ends in "ith".

Show Answer

Create at least 5 of your own select statements based on specific information that you'd like to retrieve.

Enter SQL Statement here:

```
1 select firstname,lastname,age from myemployees
2 where age < '30';
```

firstname	lastname	age	
Jonie	Weber	28	

- All secretaries are now called "Administrative Assistant". Update all titles accordingly.
 Show Answer
- 4. Everyone that's making under 30000 are to receive a 3500 a year raise.

Show Answer

5. Everyone that's making over 33500 are to receive a 4500 a year raise.

Show Answer

6. All "Programmer II" titles are now promoted to "Programmer III".

Show Answer

7. All "Programmer" titles are now promoted to "Programmer II".

Show Answer

Create at least 5 of your own update statements and submit them.

Enter SQL Statement here:

```
1 update myemployees
2    set title = "Administrative Assistant";
3
4
5 select title from myemployees;
```

```
title
Administrative Assistant
Administrative Assistant
Administrative Assistant
```

Select statement exercises

Enter select statements to:

1. Display the first name and age for everyone that's in the table.

Show Answer

2. Display the first name, last name, and city for everyone that's not from Payson.

Show Answer

3. Display all columns for everyone that is over 40 years old.

Show Answer

4. Display the first and last names for everyone whose last name ends in an "ay".

Show Answer

5. Display all columns for everyone whose first name equals "Mary".

Show Answer

6. Display all columns for everyone whose first name contains "Mary".

Show Answer

Enter SQL Statement here:

```
select * from empinfo
where age > 40;
```

first	last	id	age	city	state	
John	Jones	99980	45	Payson	Arizona	
Ginger	Howell	98002	42	Cottonwood	Arizona	
Mary Ann	May	32326	52	Tucson	Arizona	
Erica	Williams	32327	60	Show Low	Arizona	

5. Select all columns for everyone whose last name contains "ebe".

Show Answer

6. Select the first name for everyone whose first name equals "Potsy".

Show Answer

7. Select all columns for everyone over 80 years old.

Show Answer

8. Select all columns for everyone whose last name ends in "ith",

Show Answer

Create at least 5 of your own select statements based on specific information that you'd like to retrieve.

Enter SQL Statement here:

```
1 select * from myemployees
2 where lastname LIKE '%ebe%';
```

Execute Query

firstname	lastname	title	age	salary	
Jonie	Weber	Secretary	28	19500.00	
Potsy	Weber	Programmer	32	45300.00	

1

4. Everyone that's making under 30000 are to receive a 3500 a year raise.

Show Answer

5. Everyone that's making over 33500 are to receive a 4500 a year raise.

Show Answer

6. All "Programmer II" titles are now promoted to "Programmer III".

Show Answer

7. All "Programmer" titles are now promoted to "Programmer II".

Show Answer

Create at least 5 of your own update statements and submit them.

Enter SQL Statement here:

```
update myemployees
set salary = salary + 3500
where salary < 30000;

select salary from myemployees;</pre>
```

```
salary
19500.00
45300.00
75020.00
```

Select statement exercises

Enter select statements to:

1. Display the first name and age for everyone that's in the table.

Show Answer

2. Display the first name, last name, and city for everyone that's not from Payson.

Show Answer

3. Display all columns for everyone that is over 40 years old.

Show Answer

4. Display the first and last names for everyone whose last name ends in an "ay".

Show Answe

5. Display all columns for everyone whose first name equals "Mary".

Show Answer

6. Display all columns for everyone whose first name contains "Mary".

Show Answer

Enter SQL Statement here:

```
1 select first,last from empinfo
2 | where last LIKE '%ay';
```

first	last	
Gus	Gray	
Mary Ann	May	

Select the first name for everyone whose first name equals "Potsy".
 Show Answer

7. Select all columns for everyone over 80 years old.

Show Answer

8. Select all columns for everyone whose last name ends in "ith".

Show Answer

Create at least 5 of your own select statements based on specific information that you'd like to retrieve.

Enter SQL Statement here:

```
1 select firstname from myemployees
2 where firstname = 'Potsy';
```

```
firstname
Potsy
```

Everyone that's making over 33500 are to receive a 4500 a year raise.Show Answer

6. All "Programmer II" titles are now promoted to "Programmer III".

Show Answer

7. All "Programmer" titles are now promoted to "Programmer II".

Show Answer

Create at least 5 of your own update statements and submit them.

Enter SQL Statement here:

```
update myemployees
set salary = salary + 4500
where salary < 33500;
select salary from myemployees;</pre>
```

```
salary
19500.00
45300.00
75020.00
```

Select statement exercises

Enter select statements to:

1. Display the first name and age for everyone that's in the table.

Show Answer

2. Display the first name, last name, and city for everyone that's not from Payson. **Show Answer**

3. Display all columns for everyone that is over 40 years old.

Show Answer

4. Display the first and last names for everyone whose last name ends in an "ay". Show Answer

5. Display all columns for everyone whose first name equals "Mary".

Show Answer

6. Display all columns for everyone whose first name contains "Mary".

Show Answer

Enter SQL Statement here:

```
1 select * from empinfo
     where first LIKE "Mary";
```

first	last	id	age	city	state	
Mary	Jones	99982	25	Payson	Arizona	

7. Select all columns for everyone over 80 years old.

Show Answer

8. Select all columns for everyone whose last name ends in "ith".

Show Answer

Create at least 5 of your own select statements based on specific information that you'd like to retrieve.

Enter SQL Statement here:

```
1 select * from myemployees
2 where age > '80';
```

6. All "Programmer II" titles are now promoted to "Programmer III".

Show Answer

7. All "Programmer" titles are now promoted to "Programmer II".

Show Answer

Create at least 5 of your own update statements and submit them.

Enter SQL Statement here:

```
update myemployees
set title = 'Programmer III'
where title = 'Programmer II';

select * from myemployees;
```

firstname	lastname	title	age	salary
Jonie	Weber-Willians	Administrative Assistant	28	19500.00
Potsy	Weber-Willians	Administrative Assistant	32	45300.00
Dirk	Smith	Administrative Assistant	47	75020.00

Select statement exercises

Enter select statements to:

1. Display the first name and age for everyone that's in the table.

Show Answer

2. Display the first name, last name, and city for everyone that's not from Payson.

Show Answer

3. Display all columns for everyone that is over 40 years old.

Show Answer

4. Display the first and last names for everyone whose last name ends in an "ay".

Show Answer

5. Display all columns for everyone whose first name equals "Mary".

Show Answer

6. Display all columns for everyone whose first name contains "Mary".

Show Answer

Enter SQL Statement here:

```
1 select * from empinfo
2 where first = "Mary";
```

first	last	id	age	city	state	
Mary	Jones	99982	25	Payson	Arizona	

8. Select all columns for everyone whose last name ends in "ith".

Show Answer

Create at least 5 of your own select statements based on specific information that you'd like to retrieve.

Enter SQL Statement here:

```
1 select * from myemployees
2 where lastname LIKE '%ith';
```

firstname	lastname	title	age	salary	
Dirk	Smith	Programmer II	45	75020.00	

7. All "Programmer" titles are now promoted to "Programmer II".

Show Answer

Create at least 5 of your own update statements and submit them.

Enter SQL Statement here:

```
update myemployees
set title = 'Programmer'
where title = 'Programmer II';

select * from myemployees;
```

firstname	lastname	title	age	salary
Jonie	Weber-Willians	Administrative Assistant	28	19500.00
Potsy	Weber-Willians	Administrative Assistant	32	45300.00
Dirk	Smith	Administrative Assistant	47	75020.00

```
1 SELECT Item from Items_ordered
2 where customerid = '10449';
```

item		
Unicycle		
Snow Shoes		
Bicycle		
Canoe		
Flashlight		
Canoe paddle		

	MAX(price)	from items_ordered;
2		

MAX(price)		
1250		

1	SELECT state, count(*)
2	FROM customers
3	GROUP BY state;

state	count(*)	
Arizona	6	
Colorado	2	
Hawaii	1	
Idaho	1	
North Carolina	1	
Oregon	2	
South Carolina	ĩ	
Washington	2	
Wisconsin	1	

```
1 SELECT distinct state, count(*)
2 from customers
3 group by state
4 having count(*) < 2;
```

state	count(*)
Hawaii	1
Idaho	1
North Carolina	1
South Carolina	1
Wisconsin	1

1 select lastname, firstname, city
2 from customers
3 order by lastname;

lastname	firstname	city	
Brown	Leroy	Pinetop	
Cleaver	Elroy	Globe	
Dalton	Shawn	Cannon Beach	
Davids	Donald	Gila Bend	
Giles	Conrad	Telluride	
Graham	Sarah	Greensboro	
Gray	John	Lynden	
Howell	Michael	Tillamook	
Howell	Mary Ann	Charleston	
Jones	Lisa	Oshkosh	
Keller	Elroy	Snoqualmie	
Mendoza	Kelly	Kailua	
Moore	Isabela	Yuma	
Sakahara	Linda	Nogales	
Sanchez	Anthony	Winslow	
Schultz	Ginger	Pocatello	
Smith	Kevin	Durango	

```
1 select customerid, order_date, item
2 from items_ordered
3 where (item = 'Snow Shoes') or (item = 'Ear Muffs')
```

customerid	order_date	item	
10449	01-Sep-1999	Snow Shoes	
10298	01-Apr-2000	Ear Muffs	

1 SELECT order_date,item,price

2 from items_ordered

3 where price BETWEEN 10.00 and 80.00

4 order by price;

order_date	item	price
01-Apr-2000	Ear Muffs	12.5
30-Dec-1999	Hoola Hoop	14.75
02-Jan-2000	Lantern	16
19-Apr-2000	Shovel	16.75
18-Aug-1999	Rain Coat	18.3
01-Dec-1999	Helmet	22
18-Mar-2000	Pocket Knife	22.38
14-Aug-1999	Ski Poles	25.5
30-Jun-1999	Pogo stick	28
01-Jan-2000	Flashlight	28
19-Sep-1999	Lantern	29
19-Jan-2000	Lawnchair	32
01-Jul-1999	Skateboard	33
18-Jan-2000	Inflatable Mattress	38
19-Mar-2000	Canoe paddle	40
01-Sep-1999	Snow Shoes	45
30-Jun-1999	Raft	58
18-Jan-2000	Tent	79.99

```
1 select item, sum(price)/sum(quantity)
2 from items_ordered
3 group by item;
```

item	<pre>sum(price)/sum(quantity)</pre>		
Bicycle	380.5		
Canoe	280		
Canoe paddle	20		
Compass	8		
Ear Muffs	12.5		
Flashlight	6.5		
Helmet	22		
Hoola Hoop	4.916666666666667		
Inflatable Mattress	38		
Lantern	15		
Lawnchair	8		
Life Vest	31		
Parachute	1250		

```
1 select customers.customerid, customers.firstname, customers.lastname, items_o
2 from items_ordered, customers;
3
```

customerid	firstname	lastname	order_date	item	price
10101	John	Gray	30-Jun-1999	Pogo stick	28
10298	Leroy	Brown	30-Jun-1999	Pogo stick	28
10299	Elroy	Keller	30-Jun-1999	Pogo stick	28
10315	Lisa	Jones	30-Jun-1999	Pogo stick	28
10325	Ginger	Schultz	30-Jun-1999	Pogo stick	28
10329	Kelly	Mendoza	30-Jun-1999	Pogo stick	28
10330	Shawn	Dalton	30-Jun-1999	Pogo stick	28
10338	Michael	Howell	30-Jun-1999	Pogo stick	28
10339	Anthony	Sanchez	30-Jun-1999	Pogo stick	28
10408	Elroy	Cleaver	30-Jun-1999	Pogo stick	28
10410	Mary Ann	Howell	30-Jun-1999	Pogo stick	28
10413	Donald	Davids	30-Jun-1999	Pogo stick	28
10419	Linda	Sakahara	30-Jun-1999	Pogo stick	28
10429	Sarah	Graham	30-Jun-1999	Pogo stick	28
10438	Kevin	Smith	30-Jun-1999	Pogo stick	28
10439	Conrad	Giles	30-Jun-1999	Pogo stick	28
10449	Isabela	Moore	30-Jun-1999	Pogo stick	28
10101	John	Gray	30-Jun-1999	Raft	58
10298	Leroy	Brown	30-Jun-1999	Raft	58
10200	F1000	V-11-n	20 Jun 1000	Dof+	го