

[Query Editor](#) [Query History](#)

Scratch Pad

Question 1 Answer

```
4 1. This sql output shows all combinations of all tables within these tables queried.
5
6 There were 48 rows returned
```

Note: Ended up creating the Schema for this on the SSU database location where we have the in class Schema. This is why all of my queries have the "SchemaName"."Table"."Column" syntax so that postgresQL knew what tables I wanted and from what Schema. I know you told us not to do it this way, but I figured with the added complexity it would end up teaching me more about sql in the long run even if it took me a bit longer to get things figured out.

-Kevin Cozart

[Data Output](#) [Explain](#) [Messages](#) [Notifications](#)

	Name character varying (50)	IsEndangered boolean	AvgLifespan integer	AvgLbs integer	City character varying (25)	Country character varying (25)	Acres integer	Year Founded integer	Name character varying (25)	Species character varying (50)	Zoo charac
36	Snow Leopard	true	17	90	Berlin	Germany	86	1844	Knut	Polar Bear	Berl
37	Greater Flamingo	false	20	6	San Diego	USA	100	1915	F21	Greater Flamingo	San
38	Giant Panda	true	15	220	San Diego	USA	100	1915	F21	Greater Flamingo	San
39	Polar Bear	true	20	1200	San Diego	USA	100	1915	F21	Greater Flamingo	San
40	Snow Leopard	true	17	90	San Diego	USA	100	1915	F21	Greater Flamingo	San
41	Greater Flamingo	false	20	6	San Diego	USA	100	1915	Tai Shan	Giant Panda	Was
42	Giant Panda	true	15	220	San Diego	USA	100	1915	Tai Shan	Giant Panda	Was
43	Polar Bear	true	20	1200	San Diego	USA	100	1915	Tai Shan	Giant Panda	Was
44	Snow Leopard	true	17	90	San Diego	USA	100	1915	Tai Shan	Giant Panda	Was
45	Greater Flamingo	false	20	6	San Diego	USA	100	1915	Knut	Polar Bear	Berl
46	Giant Panda	true	15	220	San Diego	USA	100	1915	Knut	Polar Bear	Berl
47	Polar Bear	true	20	1200	San Diego	USA	100	1915	Knut	Polar Bear	Berl
48	Snow Leopard	true	17	90	San Diego	USA	100	1915	Knut	Polar Bear	Berl

```
1 SELECT *
2 FROM worldanimals."Species", worldanimals."Animals" ;
```

3

4 Question 2 Answer

5 2. This query shows all combinations of the Species and Animals table

6 It has 12 rows.

[Data Output](#) [Explain](#) [Messages](#) [Notifications](#)

	Name character varying (50)	IsEndangered boolean	AvgLifespan integer	AvgLbs integer	Name character varying (25)	Species character varying (50)	Zoo character varying (25)	YearBorn integer
1	Greater Flamingo	false	20	6	F21	Greater Flamingo	San Francisco	1992
2	Greater Flamingo	false	20	6	Tai Shan	Giant Panda	Washington	2005
3	Greater Flamingo	false	20	6	Knut	Polar Bear	Berlin	2006
4	Giant Panda	true	15	220	F21	Greater Flamingo	San Francisco	1992
5	Giant Panda	true	15	220	Tai Shan	Giant Panda	Washington	2005
6	Giant Panda	true	15	220	Knut	Polar Bear	Berlin	2006
7	Polar Bear	true	20	1200	F21	Greater Flamingo	San Francisco	1992
8	Polar Bear	true	20	1200	Tai Shan	Giant Panda	Washington	2005
9	Polar Bear	true	20	1200	Knut	Polar Bear	Berlin	2006
10	Snow Leopard	true	17	90	F21	Greater Flamingo	San Francisco	1992
11	Snow Leopard	true	17	90	Tai Shan	Giant Panda	Washington	2005
12	Snow Leopard	true	17	90	Knut	Polar Bear	Berlin	2006

x

```
1 SELECT *
2 FROM worldanimals."Species"
3 NATURAL JOIN
4 worldanimals."Animals";
```

Question 3 Answer

6 3.
7 This doesn't show any output because Species and Animal have no common primary keys as Animals
8 has a multi variable primary key in it thus there is no matching.

Name	IsEndangered	AvgLifespan	AvgLbs	Species	Zoo	YearBorn
character varying	boolean	integer	integer	character varying (50)	character varying (25)	integer

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```

1 SELECT *
2
3 FROM worldanimals."Species" AS sp
4 JOIN worldanimals."Animals" AS an
5 ON sp."Name" = an."Species";
6
7 4.
8 Q2 uses an alias to specify what table names will be and is only joining via the Name and
9 species column. Thus returning only 3 rows. Where as Q2 returned the entire combinations
10 from both tables as there wasn't any specifications to what was to be displayed as with the join in q4
    
```

Data Output Explain Messages Notifications

	Name character varying (50)	IsEndangered boolean	AvgLifespan integer	AvgLbs integer	Name character varying (25)	Species character varying (50)	Zoo character varying (25)	YearBorn integer	
1	Greater Flamingo	false	20	6	F21	Greater Flamingo	San Francisco	1992	
2	Giant Panda	true	15	220	Tai Shan	Giant Panda	Washington	2005	
3	Polar Bear	true	20	1200	Knut	Polar Bear	Berlin	2006	


```
1 SELECT *
2 FROM (worldanimals."Species" AS sp
3 JOIN worldanimals."Animals" AS an
4 ON sp."Name" = an."Species"
5 ) t1
6 JOIN
7 worldanimals."Zoos" AS t2
8 ON t1."Zoo" = t2."City";
```

Question 5 Answer

```
10 5.
11 t1 is a join between Species and Animals on the Name field thus it gives us all columns for the three rows t
12 that match on the name column. t2 adds in all of the fields that match for table zoo in the combined
13 tables in t1
```

Data Output Explain Messages Notifications

	Name character varying (50)	IsEndangered boolean	AvgLifespan integer	AvgLbs integer	Name character varying (25)	Species character varying (50)	Zoo character varying (25)	YearBorn integer	City character varying (25)	Country character varying (25)
1	Greater Flamingo	false	20	6	F21	Greater Flamingo	San Francisco	1992	San Francisco	USA
2	Giant Panda	true	15	220	Tai Shan	Giant Panda	Washington	2005	Washington	USA
3	Polar Bear	true	20	1200	Knut	Polar Bear	Berlin	2006	Berlin	Germany

```
1 select "Name"
2 from "worldanimals"."Species"
3 where "Name" like 'G%'
```

Question 6 Answer

	Name
	[PK] character varying (50)
1	Greater Flamingo
2	Giant Panda

Query Editor Query History

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1 **Select** "Name" , "Species"

2 **From** "worldanimals"."Animals"

3 **where** "YearBorn" = (**select** "YearBorn"

4 **from** "worldanimals"."Animals"

5 **inner join** (**select** "City"

6 **from** "worldanimals"."Zoos"

7 **where** "Country" = 'USA') **as** cityCountry **on** "worldanimals"."Animals"."Zoo" = city

8 **where** "YearBorn" > '2005')

9

10 **select** *

11 **from** "worldanimals"."Animals"

12

13 **insert into** "worldanimals"."Animals" ("Name", "Species", "Zoo", "YearBorn")

14 **values** ('MM2', 'Greater Flamingo', 'San Francisco', '2010')

Question 7 Answer Had to enter new value to test this query Thus the insert into statement

Data Output Explain Messages Notifications

	Name character varying (25)	Species character varying (50)
1	MM2	Greater Flamingo

Query Editor Query History

1 **Select** "Name"

2 **From** "worldanimals"."Species"

3 **Where** "AvgLifespan" **IN** (**select Max**("AvgLifespan")

4 **from** "worldanimals"."Species"

5)|

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	Name
	[PK] character varying (50)
1	Greater Flamingo
2	Polar Bear


```
1 Select "Species"
2 From "worldanimals"."Animals"
3 inner join "worldanimals"."Zoos" on "worldanimals"."Zoos"."City" = "worldanimals"."Animals"."Zoo"
4 Where "Year Founded" IN (select min("Year Founded")
5                           from "worldanimals"."Zoos"
6                           where "Country" = 'USA');
```

Question 9 Answer

Species
character varying (50)

1 Giant Panda

```
1
2 select "City", "worldanimals"."Zoos"."Country", "Acres"
3 from "worldanimals"."Zoos"
4 inner join (Select "Country", Max("Acres") as macres
5 from "worldanimals"."Zoos" group by "Country") as maxacres on
6 "worldanimals"."Zoos"."Acres" = maxacres.macres AND
7 "worldanimals"."Zoos"."Country" = maxacres."Country"
8 where "Acres" > 25
```

9
10 Question 10 Answer

	City [PK] character varying (25)	Country character varying (25)	Acres integer
1	Washington	USA	163
2	Berlin	Germany	86

```
1 select "City"
2 From "worldanimals"."Zoos"
3 except
4 (select "worldanimals"."Zoos"."City"
5  from "worldanimals"."Zoos" left join "worldanimals"."Animals" on
6   "worldanimals"."Zoos"."City" = "worldanimals"."Animals"."Zoo"
7  where "worldanimals"."Animals"."Species" = 'Giant Panda');
```

Question 11 Answer

	City character varying (25)
1	San Diego
2	Berlin
3	San Francisco

```
1 Select "City", ROUND("Acres" * 0.004045,4) as "Acres_In_km^2"
2 from "worldanimals"."Zoos"
3 where "Country" <> 'USA'
```

Question 12 Answer

	City character varying (25)	Acres_In_km^2 numeric
1	Berlin	0.3479

```
1
2 select "worldanimals"."Animals"."Name"
3 from "worldanimals"."Animals"
4 inner join (select "Name"
5             from "worldanimals"."Species"
6             where "IsEndangered" = 'true'
7             group by "Name")
8 as animalSpecies on "worldanimals"."Animals"."Species" = animalSpecies."Name"
9 inner join (select "City", "Country"
10              from "worldanimals"."Zoos"
11              where "Country" = 'USA'
12              group by "City","Country")
13 as animalCountry on "worldanimals"."Animals"."Zoo" = animalCountry."City"
```

Question 13 Answer

Name	
character varying (25)	
1	Tai Shan

Query Editor

Query History

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```
select "Name"
from "worldanimals"."Species"
where "AvgLifespan" = (Select Max("AvgLifespan")
                        from "worldanimals"."Species"
                        where "AvgLifespan" <> (Select Max("AvgLifespan") from "worldanimals"."Species"))
```

Question 14 Answer

	Name
	[PK] character varying (50)
1	Snow Leopard

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Query History

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1 Select "Name"

2 From "worldanimals"."Animals"

3 where "YearBorn" = (select Max("YearBorn")

4 from "worldanimals"."Animals"

5 where "Species" = 'Greater Flamingo'

6 AND "Zoo" = 'San Francisco'

7 And ("Name" like 'FF%' or "Name" like 'MM%')));

8

9 Question 15 Answer Had to enter alot of extra values into the database to fully test query. Last page is full ouput

10 of added data to Animals table

11 select *

12 from "worldanimals"."Animals"

13

14

15 insert into "worldanimals"."Animals" ("Name", "Species", "Zoo", "YearBorn")

16 Values ('MM15', 'Greater Flamingo', 'Berlin', '2000')

17

18 UPDATE "worldanimals"."Animals"

Data Output

Explain

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Name

character varying (25)

1 MM1

```
1 Select "Name"
2 From "worldanimals"."Animals"
3 where "YearBorn" = (select Max("YearBorn")
4                     from "worldanimals"."Animals"
5                     where "Species" = 'Greater Flamingo'
6                     AND "Zoo" = 'San Francisco'
7                     And ("Name" like 'FF%' or "Name" like 'MM%'));
8
9 NOTE: Full ouput of added animals to test Question 15
10
11 select *
12 from "worldanimals"."Animals"
13
14
15 insert into "worldanimals"."Animals" ("Name", "Species", "Zoo", "YearBorn")
16 Values ('MM15', 'Greater Flamingo', 'Berlin', '2000')
17
18 UPDATE "worldanimals"."Animals"
```

	Name [PK] character varying (25)	Species [PK] character varying (50)	Zoo [PK] character varying (25)	YearBorn integer
1	F21	Greater Flamingo	San Francisco	1992
2	Tai Shan	Giant Panda	Washington	2005
3	Knut	Polar Bear	Berlin	2006
4	FF1	Greater Flamingo	San Francisco	1993
5	F3	Greater Flamingo	San Francisco	1994
6	MM1	Greater Flamingo	San Francisco	1995
7	MM15	Greater Flamingo	Berlin	2000