MIS 2100 Homework 2

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1.

A.
```
SELECT SoID AS InvNmbr, CustID, SalesDate
FROM AYSalesOrder
WHERE SalesDate = '06-17-2017';
```

	InvNmbr	CustID	SalesDate
1	90962	211584	2017-06-17
2	90963	211586	2017-06-17
3	90964	211594	2017-06-17
4	90965	211625	2017-06-17
5	90966	211677	2017-06-17
6	90967	211684	2017-06-17
7	90968	211709	2017-06-17
8	90969	211722	2017-06-17
9	90970	211737	2017-06-17
10	90971	211758	2017-06-17
11	90972	211762	2017-06-17
12	90973	211841	2017-06-17
13	90974	211861	2017-06-17
14	90975	211864	2017-06-17
15	90976	211879	2017-06-17
16	90977	211881	2017-06-17
17	90978	211898	2017-06-17
18	90979	211909	2017-06-17
19	90980	211944	2017-06-17
20	90981	211962	2017-06-17

B.
```
SELECT c.CustID, political, income
FROM AYCustomer C, AYSalesCenter S, AYSalesOrder O
WHERE o.scid = s.scid AND c.custid = o.custid AND State = 'pa' AND Children >=
2;
```

	CustID	political	income
1	212169	NULL	131100
2	212202	D	NULL
3	213265	R	143000
4	213524	D	104500
5	214043	R	NULL
6	214914	R	93600
7	214956	D	NULL
8	215745	D	NULL
9	212038	R	NULL
10	212236	R	145200
11	212484	D	NULL
12	213492	R	104500
13	213619	R	133100
14	213766	R	NULL
15	213948	R	NULL
16	214076	NULL	NULL
17	214211	R	134550
18	214275	R	NULL
19	214691	D	NULL
20	215056	Other	NULL

C.
```
SELECT State, Count(fishlic) AS TotalFishLic
FROM AYCustomer c, AYSalesCenter s, AYSalesOrder o
WHERE c.custid = o.custid AND s.scid = o.scid
GROUP BY State
ORDER BY State ASC;
```

	State	TotalFishLic
1	FL	717
2	KS	322
3	OH	844
4	PA	1049
5	TX	834
6	WV	216

D.
```
SELECT OptName, Price, Unitcost, (Price - Unitcost) AS MarginCost
FROM AYOption
ORDER BY MarginCost Desc;
```

	OptName	Price	Unitcost	MarginCost
1	GlassBot	499.00	190.00	309.00
2	SportClust	350.00	143.00	207.00
3	Chrome	320.00	135.00	185.00
4	LuxSeat	375.00	205.00	170.00
5	Anchor	290.00	120.00	170.00
6	ExpFrStor	250.00	110.00	140.00
7	SideStor	175.00	77.00	98.00
8	UnderCarr	240.00	145.00	95.00
9	Headlight	195.00	116.00	79.00
10	EPaddle	160.00	104.00	56.00
11	DeckRig	125.00	90.00	35.00
12	RodHolder	85.00	50.00	35.00
13	BaitTank	95.00	63.00	32.00
14	FlagHolder	40.00	12.00	28.00
15	CupHoldL	50.00	30.00	20.00
16	CupHoldR	50.00	30.00	20.00
17	DragHand	50.00	34.00	16.00

E.
```
SELECT DISTINCT TOP 3 SalesDate, OrderTotal
FROM AYSalesOrder
ORDER BY OrderTotal ASC;
```

	SalesDate	OrderTotal
1	2017-06-01	7999.00
2	2017-06-02	7999.00
3	2017-06-03	7999.00

F.
```
SELECT State, sum(children) AS TotalChildren
FROM AYSalesCenter s, AYCustomer c, AYSalesOrder o
WHERE s.scid = o.scid AND c.custid = o.custid
GROUP BY State
HAVING sum(children) > 600;
```

	STATE	TotalChildren
1	PA	781
2	OH	635

G.
```
SELECT SalesCenter, Count(o.modelid) AS UnitsSold
FROM AYSalesCenter c, AYModel m, AYSalesOrder o
WHERE c.scid = o.scid AND m.modelid = o.modelid AND o.modelid = 2
GROUP BY salescenter
HAVING salescenter = 'Dallas' OR salescenter = 'columbus' OR salescenter =
'cranberry' OR salescenter ='jacksonville';
```

	SalesCenter	UnitsSold
1	Columbus	76
2	Cranberry	90
3	Dallas	31
4	Jacksonville	21

H.
```
SELECT c.custid, political, modelname
FROM AYCustomer c, AYSalesOrder o, AYModel m, AYSalesCenter s
WHERE c.custid = o.custid AND m.modelid = o.modelid AND  s.scid = o.scid AND
State ='wv';
```

	custid	political	modelname
1	211603	R	AtomTrout
2	211621	R	AtomTrout
3	211652	D	AtomShark
4	211665	NULL	AtomTrout
5	211680	Other	AtomTrout
6	211696	NULL	AtomTrout
7	211737	R	AtomShark
8	211774	R	AtomTrout
9	211782	D	AtomTrout
10	211785	NULL	AtomTrout
11	211808	R	AtomTrout
12	211809	R	AtomTrout
13	211835	R	AtomTrout
14	211871	D	AtomShark
15	211883	R	AtomTrout
16	211901	D	AtomTrout
17	211910	R	AtomTrout
18	211939	R	AtomTrout
19	211942	D	AtomTrout
20	211964	Other	AtomShark

I.
```
SELECT AVG(recscore) AS AvgRecScore
FROM AYSalesCenter c, AYSalesOrder o
WHERE c.scid = o.scid
GROUP BY salescenter
HAVING salescenter = 'Pittsburgh';
```

	AvgRecScore
1	4.695266

J.
```
SELECT TOP 5 SalesCenter, COUNT(fishlic) AS TotalFishLic
FROM AYSalesCenter c, AYCustomer a, AYSalesOrder o
WHERE c.scid = o.scid AND a.custid = o.custid
GROUP BY SalesCenter
ORDER BY COUNT(fishlic) DESC;
```

	SalesCenter	TotalFishLic
1	Pittsburgh	326
2	Lorain	286
3	Overland Park	263
4	Columbus	257
5	Orlando	250

2.

A. For the first query, I will output the marital status, children, and how many kayaks were purchased of that family size. This will help companies to know what family size they receive the most business from. It can help them to know where they should focus their advertising efforts. The business will do better if they advertise to families who are more likely to buy their kayak than those who aren't.

```
SELECT Marital, Children, COUNT(ModelName) AS TotalSales
FROM AYCustomer c, AYSalesOrder o, AYModel m
WHERE c.custid = o.custid AND o.modelid = m.modelid
GROUP BY Marital, Children
HAVING Marital IS NOT NULL AND Children IS NOT NULL
ORDER BY Marital, Children;
```

	Marital	Children	TotalSales
1	Married	0	997
2	Married	1	312
3	Married	2	265
4	Married	3	103
5	Married	4	57
6	Married	5	4
7	Married	7	1
8	Married	8	1
9	Married	9	5
10	Single	0	1252
11	Single	1	359
12	Single	2	257
13	Single	3	89
14	Single	4	53
15	Single	5	3
16	Single	6	2
17	Single	7	3
18	Single	8	2

With this information the company knows that the bigger the family the less business they receive.

B. The second query I would do would be to compare the average amount spent on a kayak on a single individual to the amount married people spend on their kayak. That way the company will know whether single people or married people are more likely to spend more money on a kayak. Again, this will help with marketing. If people are more likely to spend more money on a kayak when they are single, then the company will know to focus their advertising towards single people on the different additions they can get to their kayaks. Or vice versa.

```
SELECT Marital, AVG(ordertotal) AS TotalCost
FROM AYCustomer c, AYSalesOrder o
WHERE c.custid = o.custid
GROUP BY Marital
HAVING Marital = 'Single' OR Marital = 'Married';
```

	Marital	TotalCost
1	Single	10419.5162
2	Married	10429.8275

After running the query, I noticed that Married people spend a little more than single people on average, but the difference isn't significant.