

HW1 - Jin Kweon (3032235207)

Jin Kweon

2/16/2018

1. What are the names and addresses of the diveshop customers who are renting masks?

```
SELECT DIVECUST.Name, DIVECUST.STREET, DIVECUST.CITY, DIVECUST.STATE_PROV, DIVECUST.ZIP_POSTAL_CODE, DIVECUST.COUNTRY
FROM DIVECUST
JOIN DIVEORDS
    ON DIVEORDS.Customer_No = DIVECUST.Customer_No
JOIN DIVEITEM
    ON DIVEITEM.Order_No = DIVEORDS.Order_No
JOIN DIVESTOK
    ON DIVESTOK.Item_No = DIVEITEM.Item_No
WHERE DIVESTOK.Equipment_Class = "MASK" and DIVEITEM.Rental_Sale = "RENTAL"
;
```

Name	STREET	CITY	STATE_PROV	ZIP_POSTAL_CODE	COUNTRY
Louis Jazdzewski	2501 O'Connor	New Orleans	LA	60332	U.S.A.
Louis Jazdzewski	2501 O'Connor	New Orleans	LA	60332	U.S.A.
David Burgett	320 Montgomery Street	Seattle	WA	98105	U.S.A.
Charles Sekaron	110 East Park Avenue, Box 8	Miller	SD	57362	U.S.A.
Lowell Lutz	915 E. Fesler	Dallas	TX	75043	U.S.A.
Ken Soule	58 Sansome Street	Aurora	CO	89022	U.S.A.
Richard Denning	One Hamilton Plaza	Topeka	KS	66104	U.S.A.
Michael Leblanc	4210 Johnson Drive	Bel Air	CA	90026	U.S.A.

8 rows in set (0.00 sec)

2. What are the names of the wildlife that Mary Rioux might see on her trip. Are there any Shipwrecks there (give names)?

```
SELECT SHIPWRCK.Ship_Name, DIVECUST.Name, BIOLIFE.Category, BIOLIFE.Common_Name, BIOLIFE.Species_Name
FROM DIVECUST
JOIN DIVEORDS
    ON DIVEORDS.Customer_No = DIVECUST.Customer_No
JOIN DEST
    ON DEST.Destination_Name = DIVEORDS.Destination
JOIN SITES
    ON SITES.Destination_No = DEST.Destination_No
JOIN BIOSITE
    ON BIOSITE.Site_No = SITES.Site_No
JOIN SHIPWRCK
    ON SHIPWRCK.Site_No = BIOSITE.Site_No
JOIN BIOLIFE
    ON BIOLIFE.Species_No = BIOSITE.Species_No
WHERE DIVECUST.Name = "MARY RIOUX"
;
```

Ship_Name	Name	Category	Common_Name	Species_Name
F.S.Looping	Mary Rioux	Shark	Swell Shark	Cephaloscyllium ventriosum
F.S.Looping	Mary Rioux	Ray	Bat Ray	Myliobatis californica
F.S.Looping	Mary Rioux	Eel	California Moray	Gymnothorax mordax
F.S.Looping	Mary Rioux	Cod	Lingcod	Ophiodon elongatus
F.S.Looping	Mary Rioux	Sculpin	Cabezon	Scorpaenichthys marmoratus
F.S.Looping	Mary Rioux	Jack	Yellow Jack	Gnathanodon speciosus
F.S.Looping	Mary Rioux	Surfperch	Redtail Surfperch	Amphistichus rhodoterus
F.S.Looping	Mary Rioux	Croaker	White Sea Bass	Atractoscion nobilis
F.S.Looping	Mary Rioux	Greenling	Rock Greenling	Hexagrammos lagocephalus
F.S.Looping	Mary Rioux	Wrasse	Senorita	Oxyjulis californica
F.S.Looping	Mary Rioux	Smelt	Surf Smelt	Hypomesus pretiosus
Gosford	Mary Rioux	Shark	Swell Shark	Cephaloscyllium ventriosum
Gosford	Mary Rioux	Ray	Bat Ray	Myliobatis californica
Gosford	Mary Rioux	Eel	California Moray	Gymnothorax mordax
Gosford	Mary Rioux	Cod	Lingcod	Ophiodon elongatus
Gosford	Mary Rioux	Sculpin	Cabezon	Scorpaenichthys marmoratus
Gosford	Mary Rioux	Jack	Yellow Jack	Gnathanodon speciosus
Gosford	Mary Rioux	Surfperch	Redtail Surfperch	Amphistichus rhodoterus
Gosford	Mary Rioux	Croaker	White Sea Bass	Atractoscion nobilis
Gosford	Mary Rioux	Greenling	Rock Greenling	Hexagrammos lagocephalus
Gosford	Mary Rioux	Wrasse	Senorita	Oxyjulis californica
Gosford	Mary Rioux	Smelt	Surf Smelt	Hypomesus pretiosus
Star of Scotland	Mary Rioux	Shark	Swell Shark	Cephaloscyllium ventriosum
Star of Scotland	Mary Rioux	Ray	Bat Ray	Myliobatis californica
Star of Scotland	Mary Rioux	Eel	California Moray	Gymnothorax mordax
Star of Scotland	Mary Rioux	Cod	Lingcod	Ophiodon elongatus
Star of Scotland	Mary Rioux	Sculpin	Cabezon	Scorpaenichthys marmoratus
Star of Scotland	Mary Rioux	Jack	Yellow Jack	Gnathanodon speciosus
Star of Scotland	Mary Rioux	Surfperch	Redtail Surfperch	Amphistichus rhodoterus
Star of Scotland	Mary Rioux	Croaker	White Sea Bass	Atractoscion nobilis
Star of Scotland	Mary Rioux	Greenling	Rock Greenling	Hexagrammos lagocephalus
Star of Scotland	Mary Rioux	Wrasse	Senorita	Oxyjulis californica
Star of Scotland	Mary Rioux	Smelt	Surf Smelt	Hypomesus pretiosus
USS Moody	Mary Rioux	Shark	Swell Shark	Cephaloscyllium ventriosum
USS Moody	Mary Rioux	Ray	Bat Ray	Myliobatis californica
USS Moody	Mary Rioux	Eel	California Moray	Gymnothorax mordax
USS Moody	Mary Rioux	Cod	Lingcod	Ophiodon elongatus
USS Moody	Mary Rioux	Sculpin	Cabezon	Scorpaenichthys marmoratus
USS Moody	Mary Rioux	Jack	Yellow Jack	Gnathanodon speciosus
USS Moody	Mary Rioux	Surfperch	Redtail Surfperch	Amphistichus rhodoterus
USS Moody	Mary Rioux	Croaker	White Sea Bass	Atractoscion nobilis
USS Moody	Mary Rioux	Greenling	Rock Greenling	Hexagrammos lagocephalus
USS Moody	Mary Rioux	Wrasse	Senorita	Oxyjulis californica
USS Moody	Mary Rioux	Smelt	Surf Smelt	Hypomesus pretiosus
Valiant	Mary Rioux	Shark	Swell Shark	Cephaloscyllium ventriosum
Valiant	Mary Rioux	Ray	Bat Ray	Myliobatis californica
Valiant	Mary Rioux	Eel	California Moray	Gymnothorax mordax
Valiant	Mary Rioux	Cod	Lingcod	Ophiodon elongatus
Valiant	Mary Rioux	Sculpin	Cabezon	Scorpaenichthys marmoratus
Valiant	Mary Rioux	Jack	Yellow Jack	Gnathanodon speciosus
Valiant	Mary Rioux	Surfperch	Redtail Surfperch	Amphistichus rhodoterus
Valiant	Mary Rioux	Croaker	White Sea Bass	Atractoscion nobilis
Valiant	Mary Rioux	Greenling	Rock Greenling	Hexagrammos lagocephalus
Valiant	Mary Rioux	Wrasse	Senorita	Oxyjulis californica
Valiant	Mary Rioux	Smelt	Surf Smelt	Hypomesus pretiosus

55 rows in set (0.00 sec)

Or,

```
SELECT DIVECUST.Name, BIOLIFE.Category, BIOLIFE.Common_Name, BIOLIFE.Species_Name
FROM DIVECUST
  JOIN DIVEORDS
    ON DIVEORDS.Customer_No = DIVECUST.Customer_No
  JOIN DEST
    ON DEST.Destination_Name = DIVEORDS.Destination
  JOIN SITES
    ON SITES.Destination_No = DEST.Destination_No
  JOIN BIOSITE
    ON BIOSITE.Site_No = SITES.Site_No
  JOIN BIOLIFE
    ON BIOLIFE.Species_No = BIOSITE.Species_No
WHERE DIVECUST.Name = "MARY RIOUX"
;
```

Name	Category	Common_Name	Species_Name
Mary Rioux	Shark	Swell Shark	Cephaloscyllium ventriosum
Mary Rioux	Ray	Bat Ray	Myliobatis californica
Mary Rioux	Eel	California Moray	Gymnothorax mordax
Mary Rioux	Cod	Lingcod	Ophiodon elongatus
Mary Rioux	Sculpin	Cabezon	Scorpaenichthys marmoratus
Mary Rioux	Jack	Yellow Jack	Gnathanodon speciosus
Mary Rioux	Surfperch	Redtail Surfperch	Amphistichus rhodoterus
Mary Rioux	Croaker	White Sea Bass	Atractoscion nobilis
Mary Rioux	Greenling	Rock Greenling	Hexagrammos lagocephalus
Mary Rioux	Wrasse	Senorita	Oxyjulis californica
Mary Rioux	Smelt	Surf Smelt	Hypomesus pretiosus
Mary Rioux	Shark	Swell Shark	Cephaloscyllium ventriosum
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Mary Rioux	Cod	Lingcod	Ophiodon elongatus
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Mary Rioux	Croaker	White Sea Bass	Atractoscion nobilis
Mary Rioux	Greenling	Rock Greenling	Hexagrammos lagocephalus
Mary Rioux	Wrasse	Senorita	Oxyjulis californica
Mary Rioux	Smelt	Surf Smelt	Hypomesus pretiosus

87 rows in set (0.00 sec)

```

SELECT DISTINCT SHIPWRCK.Ship_Name, DIVECUST.Name
FROM DIVECUST
    JOIN DIVEORDS
        ON DIVEORDS.Customer_No = DIVECUST.Customer_No
    JOIN DEST
        ON DEST.Destination_Name = DIVEORDS.Destination
    JOIN SITES
        ON SITES.Destination_No = DEST.Destination_No
    JOIN BIOSITE
        ON BIOSITE.Site_No = SITES.Site_No
    JOIN SHIPWRCK
        ON SHIPWRCK.Site_No = BIOSITE.Site_No
    JOIN BIOLIFE
        ON BIOLIFE.Species_No = BIOSITE.Species_No
WHERE DIVECUST.Name = "MARY RIOUX"
;

```

Ship_Name	Name
F.S.Loop	Mary Rioux
Gosford	Mary Rioux
Star of Scotland	Mary Rioux
USS Moody	Mary Rioux
Valiant	Mary Rioux

5 rows in set (0.00 sec)

3. What sunken ships might be candidates for treasure hunters whose destination is New Jersey?

```
SELECT SHIPWRCK.Ship_Name, DEST.Destination_Name, SHIPWRCK.Interest
FROM SHIPWRCK
  JOIN SITES
    ON SITES.Site_No = SHIPWRCK.Site_No
  JOIN DEST
    ON DEST.Destination_No = SITES.Destination_No
WHERE Destination_Name = "NEW JERSEY" AND SHIPWRCK.Interest = "TREASURE"
;
```

Ship_Name	Destination_Name	Interest
Lizzie D	New Jersey	Treasure
Mohawk	New Jersey	Treasure
R.P. Resor	New Jersey	Treasure
Delaware	New Jersey	Treasure

4 rows in set (0.00 sec)

4. Who is paying the maximum amount for single type of rental equipment (use price * quantity to determine amount)?

```
SELECT DIVECUST.Name, SUM(DIVESTOK.Rental_Price * DIVEITEM.Qty)
FROM DIVESTOK
  JOIN DIVEITEM
    ON DIVEITEM.Item_No = DIVESTOK.Item_No
  JOIN DIVEORDS
    ON DIVEORDS.Order_No = DIVEITEM.Order_No
  JOIN DIVECUST
    ON DIVECUST.Customer_No = DIVEORDS.Customer_No
GROUP BY DIVECUST.Name, DIVESTOK.Equipment_Class
HAVING SUM(DIVESTOK.Rental_Price * DIVEITEM.Qty) =
(
  SELECT MAX(AMOUNT_ADDED)
  FROM(
    SELECT DIVECUST.Name, DIVEITEM.Item_No, DIVEITEM.Order_No, DIVESTOK.Equipment_Class, DIVESTOK.Description,
    (DIVESTOK.Rental_Price * DIVEITEM.Qty) AS AMOUNT, SUM(DIVESTOK.Rental_Price * DIVEITEM.Qty) AS AMOUNT_ADDED
    FROM DIVESTOK
      JOIN DIVEITEM
        ON DIVEITEM.Item_No = DIVESTOK.Item_No
      JOIN DIVEORDS
        ON DIVEORDS.Order_No = DIVEITEM.Order_No
      JOIN DIVECUST
        ON DIVECUST.Customer_No = DIVEORDS.Customer_No
    GROUP BY DIVECUST.Name, DIVESTOK.Equipment_Class
  ) AS NEW_TABLE
)
;
```

```
+-----+-----+
| Name      | SUM(DIVESTOK.Rental_Price * DIVEITEM.Qty) |
+-----+-----+
| Sven Schiro | 400 |
+-----+-----+
1 row in set (0.00 sec)
```

5. At how many sites might you see a “Nassau Grouper”?

```
SELECT COUNT(SITES.Site_Name) as Sites_number
FROM BIOLIFE
      JOIN BIOSITE
      ON BIOSITE.Species_No = BIOLIFE.Species_No
      JOIN SITES
      ON SITES.Site_No = BIOSITE.Site_No
WHERE BIOLIFE.Common_Name = "NASSAU GROUPER"
;
```

```
+-----+
| Sites_number |
+-----+
|           11 |
+-----+
1 row in set (0.00 sec)
```


6. What are the names of customers who are paying in cash?

```
SELECT DIVECUST.Name, DIVEORDS.PaymentMethod
FROM DIVECUST
      JOIN DIVEORDS
      ON DIVEORDS.Customer_No = DIVECUST.Customer_No
WHERE DIVEORDS.PaymentMethod = "CASH"
;
```

Name	PaymentMethod
Mary Rioux	Cash
Keith Lucas	Cash
Marcus Selby	Cash
Tony Rees	Cash
Lorraine Vega	Cash

5 rows in set (0.00 sec)

7. Produce a list of all equipment being rented for a dive vacation that costs more than \$30000, make the list in descending order of the rental price of the equipment. (I did descending order of literally “rental price”, not “rental price * qty”)

```
SELECT DIVESTOK.Equipment_Class, DIVESTOK.Description, DIVEITEM.Item_No, DIVEITEM.Order_No, DIVEORDS.VacationCost,
DIVESTOK.Rental_Price
FROM DIVESTOK
    JOIN DIVEITEM
        ON DIVEITEM.Item_No = DIVESTOK.Item_No
    JOIN DIVEORDS
        ON DIVEORDS.Order_No = DIVEITEM.Order_No
WHERE DIVEITEM.Rental_Sale = "RENTAL" AND DIVEORDS.VacationCost > 30000
ORDER BY DIVESTOK.Rental_Price DESC
;
```

Equipment_Class	Description	Item_No	Order_No	VacationCost	Rental_Price
Fins	Sea Wing Fins – Teal	90032	331	36000	12
Mask	Quad Vision Mask – Teal	90025	331	36000	10
Snorkel	Shotgun 2 Snorkel – Teal	90012	331	36000	2

3 rows in set (0.00 sec)

8. Who is renting teal colored equipment? (see DIVESTOK.Description)

```
SELECT DIVESTOK.Description, DIVECUST.Name
FROM DIVECUST
    JOIN DIVEORDS
        ON DIVEORDS.Customer_No = DIVECUST.Customer_No
    JOIN DIVEITEM
        ON DIVEITEM.Order_No = DIVEORDS.Order_No
    JOIN DIVESTOK
        ON DIVESTOK.Item_No = DIVEITEM.Item_No
WHERE DIVEITEM.Rental_Sale = "RENTAL" AND DIVESTOK.Description LIKE '%TEAL%'
;
```

Description	Name
Tri-Vent Mask – Teal	David Burgett
Shotgun 2 Snorkel – Teal	Ken Soule
Quad Vision Mask – Teal	Ken Soule
Sea Wing Fins – Teal	Ken Soule

4 rows in set (0.00 sec)

9. Which locations have an avg temperature of more than 75 degrees Farenheit and a travel cost of under \$4000?

```
SELECT Destination_No, Destination_Name
FROM DEST
WHERE Travel_Cost < 4000 AND Avg_Temp_F > 75
;
```

Destination_No	Destination_Name
1	Cozumel
5	Florida

2 rows in set (0.00 sec)

10. Make up two queries of your own and run them turn in the queries and the results.

a) I want to get the name and of the wrecked ships where any creatures length is less than 150 cm. Also, since I am not really expert in swimming, I want to make sure that depth is less than 80 feet and want to avoid advanced course.

```
SELECT DISTINCT SHIPWRCK.Ship_Name, SHIPWRCK.Type
FROM SHIPWRCK
  JOIN SITES
    ON SITES.Site_No = SHIPWRCK.Site_No
  JOIN BIOSITE
    ON BIOSITE.Site_No = SITES.Site_No
  JOIN BIOLIFE
    ON BIOLIFE.Species_No = BIOSITE.Species_No
WHERE BIOLIFE.Length_cm < 150 AND SITES.Depth_ft < 90 AND (SITES.Skill_Level = "INTERMEDIATE" OR SITES.Skill_Level = "BEGINNING")
;
```

Ship_Name	Type
Delaware	Steam Freighter
Gosford	Barque Rigged Sail
Lizzie D	Tug/Rumrunner
Mohawk	Ocean Liner
Star of Scotland	British Q-boat

5 rows in set (0.00 sec)

b) I want to find a possible Cal student who shipped with either UPS or Fedex and paid with either check or cash.

```
SELECT DIVECUST.Name
FROM DIVEORDS
  JOIN DIVECUST
    ON DIVECUST.Customer_No = DIVEORDS.Customer_No
WHERE DIVECUST.City = "BERKELEY" AND (DIVEORDS.Ship_Via = "UPS" OR DIVEORDS.Ship_Via = "FEDEX") AND (DIVEORDS.PaymentMethod = "CHECK" OR DIVEORDS.PaymentMethod = "CASH")
;
```

Name
Phillip Davoust

1 row in set (0.00 sec)