

## DQL Query Exercises 2 Solutions

```
CREATE TABLE Sales(  
    OID INTEGER(7) PRIMARY KEY,  
    Item VARCHAR(20) NOT NULL,  
    Price Float(6,2),  
    Qty INTEGER(4),  
    Date DATETIME,  
    CName VARCHAR(30) NOT NULL  
);
```

1. List all of the unique items in alphabetical order. **(40 items total)**

```
SELECT DISTINCT Item  
FROM Sales  
ORDER BY Item;
```

2. List all of the customers who bought at least 1 Hammer. **(5 customers total)**

```
SELECT DISTINCT CName  
FROM Sales  
WHERE Item = "Hammer"  
AND Qty >= 1;
```

3. List all of the items bought on February 25<sup>th</sup>, 2011. Include the item and customer name listed by the items in alphabetical order. **(14 items total)**

```
SELECT Item, CName  
FROM Sales  
WHERE Date = "2011-2-25"  
ORDER BY Item;
```

4. List all of the items bought by Wallace on January 21<sup>st</sup>, 2011 include the item and date. **(0 results)**

```
SELECT Item, Date  
FROM Sales  
WHERE Date = "2011-01-21"  
AND CName = "Wallace";
```

### FUNCTIONS

5. What is the grand total in sales? Sales is calculated by multiplying qty by price for each row. **(1 result)**

```
SELECT SUM(Qty*Price) AS "Grand Total"  
FROM Sales;
```

6. What is the average quantity in February 2011? **(1 result)**

```
SELECT Avg(Qty)  
FROM Sales
```

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```
WHERE Month(Date) = "02" AND Year (Date) = "2011";
```

7. What is the average quantity February 2011 listed by customer? Display results as "Avg Quantity". **(20 results)**

```
SELECT CName, Avg(Qty) AS "Avg Quantity"
FROM Sales
WHERE Month(Date) = "02" AND Year (Date) = "2011"
GROUP BY CName;
```

8. What is the average sales for each order in January 2011 listed by customer? Display the amounts as "Avg Sales". Sales is calculated by multiplying qty by price for each row. **(20 results)**

```
SELECT CName, Avg(Qty*Price) AS "Avg Sales"
FROM Sales
WHERE Month(Date) = "01" AND Year(Date) = "2011"
GROUP BY CName;
```

9. What is the average sales for each order in January 2011 listed by customer where customer name starts with the letter S? Display results as "Avg Sales". Sales is calculated by multiplying qty by price for each row. **(5 results)**

```
SELECT CName, Avg(Qty*Price) AS "Avg Sales"
FROM Sales
WHERE Month(Date) = "01" AND Year(Date) = "2011"
AND CName Like "S%"
GROUP BY CName;
```