

# HIT234 - Database Concepts

## Tutorial session 2 – Week 2 -

### Answer

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Attempt to Answer ALL Tutorial questions below:

#### SECTION 1 - SINGLE TABLES QUERIES

##### **Functions Count Sum Avg**

1. Find the number of items

```
SELECT COUNT(*) FROM ITEM;
```

```
SELECT COUNT (ITEMNO) FROM ITEM;
```

```
SELECT ITEMNO FROM item GROUP BY ITEMNO;
```

2. Find the average ITEMPRICE of an

```
item SELECT AVG(ITEMITEMPRICE)
```

```
FROM ITEM;
```

3. Find the sum of all the item prices

```
SELECT SUM(ITEMPRICE) FROM ITEM;
```

4. Find the number of CUSTOMERs in each CUSTSTATE

```
SELECT COUNT(CUSTABN), CUSTSTATE
```

```
FROM CUSTOMER
```

```
GROUP BY CUSTSTATE;
```

##### **More On Functions ( Max)**

5. The maximum number sold for each item

```
SELECT ITEMNO, max(quantity) FROM INVOICEITEM GROUP BY ITEMNO ORDER BY ITEMNO;
```

6. The number of each item that has been sold

```
SELECT ITEMNO, sum(quantity) FROM INVOICEITEM GROUP BY ITEMNO ORDER BY ITEMNO;
```

## SECTION 2 - MULTIPLE TABLE QUERIES

1. Find the customer name for invoice 12. Find their details.

```
- SELECT CUSTNAME FROM CUSTOMER c, INVOICE i
```

```
WHERE c.CUSTABN = i.CUSTABN AND i.INVOICENO = 12;
```

```
- SELECT c.* FROM CUSTOMER c, INVOICE i
```

```
WHERE c.CUSTABN = i.CUSTABN AND i.INVOICENO = 12;
```

2. Find the names of all customers who brought an item with Tube in its ITEMDESC

```
SELECT distinct c.CUSTNAME
```

```
FROM CUSTOMER c, INVOICE i, INVOICEITEM ii, ITEM it
```

```
WHERE c.CUSTABN = i.CUSTABN AND i.INVOICENO = ii.INVOICENO AND ii.ITEMNO =  
it.ITEMNO AND it.ITEMDESC LIKE '%Tube%';
```

3. Find the CUSTOMERs who live in NSW or Qld who brought Screens

```
SELECT c.CUSTNAME
```

```
FROM CUSTOMER c, INVOICE I, INVOICEITEM ii,
```

```
ITEM it WHERE c.CUSTABN = i.CUSTABN
```

```
AND i.INVOICENO = ii.INVOICENO
```

```
AND ii.ITEMNO = it.ITEMNO AND it.ITEMDESC LIKE
```

```
'%Screen%'AND (c.CUSTSTATE= 'NSW' or c.CUSTSTATE  
='Qld');
```