IF(Test Condition, True Value, False Value)

The IF condition evaluates the "Test Condition" and if the "Test Condition" is true, then it returns the "True Value". Otherwise, it returns the False Value.
Example: IF(1=1, 'working', 'not working') returns 'working'

```
hive> Select emp_id, dept from emp_data;
OK
emp_id  dept
249972  AISQUAD
249973  AISQUAD
249974  AIM
149975  AIM
249976  AISQUAD
Time taken: 0.281 seconds, Fetched: 5 row(s)
hive> select emp_id, if(dept='AISQUAD', 'Testing Resource','Not a Testing Resource') Resource_Type from emp_data;
OK
emp_id  resource_type
249972  Testing Resource
249973  Testing Resource
249974  Not a Testing Resource
149975  Not a Testing Resource
249976  Testing Resource
Time taken: 0.269 seconds, Fetched: 5 row(s)
hive>
```

COALESCE(value1,value2,...)

The COALESCE function returns the fist not NULL value from the list of values. If all the values in the list are NULL, then it returns NULL.
Example: COALESCE(NULL,NULL,5,NULL,4) returns 5

For example, let's say one had 3 date fields, datefield1, datefield2, and datefield3 from the table tblDates.

	TBLDATES		
PRIMARY_KEY	DATEFIELD1	DATEFIELD2	DATEFIELD3
1	NULL	NULL	1993-06-04

The code:

```
SELECT COALESCE(datefield1, datefield2, datefield3) as first_date_found
FROM
tblDates
WHERE
primary_key = 1
```

will return '1993-06-04'

```
hive> Select EMP_ID, Experience Exp, COALESCE(experience,'No Experience mentioned') COALESCE from EMP_DATA1;
OK
emp_id  exp     coalesce
249972  9.8     9.8
249973  9.8     9.8
249974  10.5    10.5
149975  NULL    No Experience mentioned
249976  13.2    13.2
Time taken: 0.503 seconds, Fetched: 5 row(s)
hive>
```

CASE Statement

The syntax for the case statement is:

```
CASE    [ expression ]
        WHEN condition1 THEN result1
        WHEN condition2 THEN result2
        ...
        WHEN conditionn THEN resultn
        ELSE result
END
```

- Here expression is optional. It is the value that you are comparing to the list of conditions. (ie: condition1, condition2, ... conditionn).
- All the conditions must be of same datatype. Conditions are evaluated in the order listed. Once a condition is found to be true, the case statement will return the result and not evaluate the conditions any further.
- All the results must be of same datatype.
- IF no condition is found to be true, then the case statement will return the value in the ELSE clause. If the ELSE clause is omitted and no condition is found to be true, then the case statement will return NULL

Example:

```
CASE    Fruit
        WHEN 'APPLE' THEN 'The owner is APPLE'
        WHEN 'ORANGE' THEN 'The owner is ORANGE'
        ELSE 'It is another Fruit'
END
```

The other form of CASE is
```
CASE
        WHEN Fruit = 'APPLE' THEN 'The owner is APPLE'
        WHEN Fruit = 'ORANGE' THEN 'The owner is ORANGE'
        ELSE 'It is another Fruit'
END
```

```
hive> Select EMP_ID, DEPT, CASE WHEN DEPT='AISQUAD' THEN 'Testing Resource'
    >                               WHEN DEPT='AIM'     THEN 'Development Resource'
    >                               ELSE                    'Other Resource'
    >                          END as Resource_Type from EMP_DATA;
OK
emp_id  dept     resource_type
249972  AISQUAD Testing Resource
249973  AISQUAD Testing Resource
249974  AIM      Development Resource
149975  AIM      Development Resource
249976  AISQUAD Testing Resource
Time taken: 0.303 seconds, Fetched: 5 row(s)
hive> Select EMP_ID, DEPT, CASE DEPT
    >                               WHEN 'AISQUAD' THEN 'Testing Resource'
    >                               WHEN 'AIM'     THEN 'Development Resource'
    >                               ELSE                    'Other Resource'
    >                          END as Resource_Type from EMP_DATA;
OK
emp_id  dept     resource_type
249972  AISQUAD Testing Resource
249973  AISQUAD Testing Resource
249974  AIM      Development Resource
149975  AIM      Development Resource
249976  AISQUAD Testing Resource
Time taken: 0.187 seconds, Fetched: 5 row(s)
hive>
```

ISNULL(value)

The ISNULL function returns true or false based on the value of the argument..
Example: ISNULL('ruby') returns false

```
hive> Select EMP_ID, Experience Exp, ISNULL(experience) ISNULL from EMP_DATA1;
OK
emp_id  exp     isnull
249972  9.8     false
249973  9.8     false
249974  10.5    false
149975  NULL    true
249976  13.2    false
Time taken: 0.452 seconds, Fetched: 5 row(s)
hive>
```

ISNOTNULL(value)

The ISNOTNULL function returns true or false based on the value of the argument..
Example: ISNOTNULL('ruby') returns true

```
hive> Select EMP_ID, Experience Exp, ISNOTNULL(experience) ISNULL from EMP_DATA1;
OK
emp_id  exp     isnull
249972  9.8     true
249973  9.8     true
249974  10.5    true
149975  NULL    false
249976  13.2    true
Time taken: 0.401 seconds, Fetched: 5 row(s)
hive>
```

NVL(value1, value2)

The NVL function returns test if expression is null. It will return expression if result is not null else it will return the second.

```
hive> Select EMP_ID, Experience Exp, NVL(experience,'No Experience mentioned') NVL from EMP_DATA1;
OK
emp_id  exp      nvl
249972  9.8      9.8
249973  9.8      9.8
249974  10.5     10.5
149975  NULL     No Experience mentioned
249976  13.2     13.2
Time taken: 0.462 seconds, Fetched: 5 row(s)
hive>
```