Logical Functions (IF,NESTING IF, IFS,AND/OR)

IF

Target Condition	
Sales Achieved	Status
>=50000	Completed
<50000	Incomplete

D	E	F	G	Target
Sales	**Target status**	**Incentive**		**Target**
72704	=IF(D2>=50000,"Completed","Incomplete")			

Sales	Target status
72704	Completed
44718	Incomplete
35210	Incomplete
30681	Incomplete
47487	Incomplete
75613	Completed
63671	Completed
38966	Incomplete
77052	Completed
86570	Completed
30250	Incomplete
71584	Completed

Nested IF/ IFS

- **Nested IF →** Multiple IFs on 1 column.

INCENTIVE CALCULATION	
Sales	Percentage
75000>	20%
50000>	15%
<50000	10%

	D	E	F	G	H	I
	Sales	**Target status**	**Incentive**		**Target Condition**	
	72704	Completed	=IF(D2>75000,D2*20%,IF(D2>50000,D2*15%,D2*10%))			

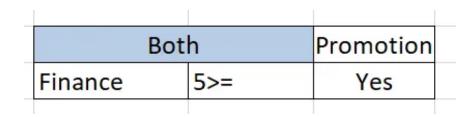| Sales	Target status	Incentive
72704	Completed	10905.6
44718	Incomplete	4471.8
35210	Incomplete	3521
30681	Incomplete	3068.1
47487	Incomplete	4748.7
75613	Completed	15122.6
63671	Completed	9550.65
38966	Incomplete	3896.6
77052	Completed	15410.4
86570	Completed	17314
30250	Incomplete	3025
71584	Completed	10737.6

Using IFS()

Sales	Target status	Incentive	Incentive		Target Condition		
72704	Completed	10905.6	=IFS(D2>75000,D2*20%,D2>50000,D2*15%,D2<=50000,D2*10%)				

D	E	F	G
Sales	**Target status**	**Incentive**	**Incentive**
72704	Completed	10905.6	10905.6
44718	Incomplete	4471.8	4471.8
35210	Incomplete	3521	3521
30681	Incomplete	3068.1	3068.1
47487	Incomplete	4748.7	4748.7
75613	Completed	15122.6	15122.6
63671	Completed	9550.65	9550.65
38966	Incomplete	3896.6	3896.6
77052	Completed	15410.4	15410.4
86570	Completed	17314	17314
30250	Incomplete	3025	3025
71584	Completed	10737.6	10737.6

- While using `IFS` , you have to explicitly mention the last condition as well.
  - In `IF` , we do not write the last condition. (It acts as `ELSE`)

AND/OR

AND

	Both	Promotion
Finance	5>=	Yes

Department	Working (years)	Salary	Promotion	Use of **AND / OR**
Finance	5	₹ 41,954.00	=IF(AND(B2="Finance",C2>=5),"Yes","No")	

B	C	D	E	F	G	H
Department	**Working (years)**	**Salary**	**Promotion**		Use of **AND / OR**	
Finance	5	₹ 41,954.00	=IF(AND(B2="Finance",C2>=5),"Yes","No")			

AND(Condition_1, Condition_2)

Department	Working (years)	Salary	Promotion
Finance	5	₹ 41,954.00	Yes
Operations	4	₹ 49,855.00	No
Sales	3	₹ 94,210.00	No
Finance	5	₹ 74,689.00	Yes
Operations	6	₹ 90,652.00	No
Operations	2	₹ 74,820.00	No
Sales	3	₹ 85,206.00	No
Finance	5	₹ 30,924.00	Yes
Operations	6	₹ 57,737.00	No
Sales	2	₹ 36,000.00	No
Sales	3	₹ 96,371.00	No
Operations	7	₹ 85,028.00	No

OR

Any One		Promotion
Finance	5>	Yes

	B	C	D	E	F	G	H	I
	Department	Working (years)	Salary	Promotion	OR	Use of **AND / OR**		
	Finance	5	₹ 41,954.00	Yes		=IF(OR(B2="Finance",C2>=5),"Yes","No")		

Name	Department	Working (years)	Salary	Promotion	OR
Employee_1	Finance	5	₹ 41,954.00	Yes	Yes
Employee_2	Operations	4	₹ 49,855.00	No	No
Employee_3	Sales	3	₹ 94,210.00	No	No
Employee_4	Finance	5	₹ 74,689.00	Yes	Yes
Employee_5	Operations	6	₹ 90,652.00	No	Yes
Employee_3	Operations	2	₹ 74,820.00	No	No
Employee_7	Sales	3	₹ 85,206.00	No	No
Employee_8	Finance	5	₹ 30,924.00	Yes	Yes
Employee_9	Operations	6	₹ 57,737.00	No	Yes
Employee_10	Sales	2	₹ 36,000.00	No	No
Employee_11	Sales	3	₹ 96,371.00	No	No
Employee_12	Operations	7	₹ 85,028.00	No	Yes