

Excel - Day 1 :--

Table 1 — Aggregator Functions

Function	Purpose	Example Formula	Description
SUM	Sum numeric column	=SUM(J2:J1000)	Total Price_USD
AVERAGE	Average numeric column	=AVERAGE(H2:H1000)	Average Mileage_KM
MAX	Highest value in column	=MAX(J2:J1000)	Maximum Price_USD
MIN	Lowest value in column	=MIN(J2:J1000)	Minimum Price_USD
COUNT	Count numeric cells	=COUNT(J2:J1000)	Count of Price_USD
COUNTA	Count non-empty cells	=COUNTA(A2:A1000)	Count of Models
DISTINCTCOUNT*	Count unique values	(Pivot Table/Remove Duplicates)	Unique Model count

Table 2 — IF Functions

Function	Purpose	Example Formula	Description
IF	Conditional check	=IF(J2>50000,"Expensive","Affordable")	Categorize cars by Price_USD
Nested IF	Multiple conditional checks	=IF(J2>50000,"Expensive",IF(J2>30000,"Medium","Low"))	Categorize price into High/Medium/Low
IF+COUNTIF	Conditional count	=IF(COUNTIF(E2:E1000,"Diesel")>50,"High Diesel","Low Diesel")	Diesel car volume check
IF+AVERAGEIF	Conditional average	=IF(AVERAGEIF(E2:E1000,"Diesel",J2:J1000)>40000,"Premium Diesel","Normal Diesel")	Price check for Diesel cars

Table 3 — Combined Functions (Aggregator + IF)

Combined Function	Purpose	Example Formula	Description
SUMIF	Sum with one condition	=SUMIF(E2:E1000,"Diesel",J2:J1000)	Sum Price_USD for

Combined Function	Purpose	Example Formula	Description
			Diesel cars
SUMIFS	Sum with multiple conditions	=SUMIFS(J2:J1000,E2:E1000,"Diesel",C2:C1000,"Europe")	Sum Price_US D Diesel cars in Europe
AVERAGEIF	Average with one condition	=AVERAGEIF(E2:E1000,"Diesel",J2:J1000)	Average Price_US D Diesel cars
AVERAGEIFS	Average with multiple conditions	=AVERAGEIFS(J2:J1000,E2:E1000,"Diesel",C2:C1000,"Europe")	Average Price Diesel cars in Europe
COUNTIF	Count with one condition	=COUNTIF(E2:E1000,"Diesel")	Count Diesel cars
COUNTIFS	Count with multiple conditions	=COUNTIFS(E2:E1000,"Diesel",C2:C1000,"Europe")	Count Diesel cars in Europe
SUMIFS+IF	Conditional summing	=IF(SUMIFS(J2:J1000,E2:E1000,"Diesel",H2:H1000,">100000")>50000,"High Revenue","Normal")	High mileage diesel revenue check
COUNTIFS+IF	Conditional count with multiple conditions	=IF(COUNTIFS(E2:E1000,"Diesel",C2:C1000,"Europe")>100,"High Demand","Normal Demand")	Diesel demand check

Combined Function	Purpose	Example Formula	Description
	Conditional		
AVERAGEIFS + IF	average with conditions	=IF(AVERAGEIFS(J2:J1000,E2:E1000,"Diesel",C2:C1000,"Europe")>50000,"Premium Diesel","Normal Diesel")	