Lesson 12: Text, Informational, and Logical Functions in Power BI (DAX)

Basic Level (1–10)

Concatenate First and Last Name: FullName = DimCustomer[FirstName] & " " & DimCustomer[LastName]

Convert Email Address to Uppercase: UpperEmail = UPPER(DimCustomer[EmailAddress])

Extract First 3 Characters from First Name: First3Chars = LEFT(DimCustomer[FirstName], 3)

Count Characters in Last Name: LastNameLength = LEN(DimCustomer[LastName])

Convert First Name to Lowercase: LowerFirstName = LOWER(DimCustomer[FirstName])

Trim Spaces in EnglishEducation: TrimmedEducation = TRIM(DimCustomer[EnglishEducation])

Repeat '*' Equal to Length of First Name: MaskedName = REPT("*", LEN(DimCustomer[FirstName]))

Get Last 4 Characters of Phone: PhoneLast4 = RIGHT(DimCustomer[Phone], 4)

Format YearlyIncome: FormattedIncome = FORMAT(DimCustomer[YearlyIncome], "$#,##0.00")

Check If FirstName = LastName: IsSame = IF(DimCustomer[FirstName] = DimCustomer[LastName], "Yes", "No")

Intermediate Level (11–20)

Find If 'Manager' Appears in Occupation: ContainsManager = IF(SEARCH("Manager", DimCustomer[EnglishOccupation], 1, 0) > 0, "Yes", "No")

Search for 'graduate' in Education: ContainsGraduate = IF(SEARCH("graduate", LOWER(DimCustomer[EnglishEducation]), 1, 0) > 0, "Yes", "No")

Extract Characters 3–7 from First Name: MidFirstName = MID(DimCustomer[FirstName], 3, 5)

Replace Area Code with 'XXX': MaskedPhone = REPLACE(DimCustomer[Phone], 1, 3, "XXX")

Format BirthDate: FormattedBirthDate = FORMAT(DimCustomer[BirthDate], "DD-MM-YYYY")

Initial + Last Name: InitialLastName = LEFT(DimCustomer[FirstName],1) & "." & DimCustomer[LastName]

Capitalize First Letter: ProperFirstName = UPPER(LEFT(DimCustomer[FirstName],1)) & LOWER(MID(DimCustomer[FirstName],2,LEN(DimCustomer[FirstName])))

Substitute Dashes with Spaces: PhoneFixed = SUBSTITUTE(DimCustomer[Phone], "-", " ")

Convert BirthDate Year to Numeric: BirthYear = VALUE(YEAR(DimCustomer[BirthDate]))

Round YearlyIncome 1 Decimal: RoundedIncome = FORMAT(ROUND(DimCustomer[YearlyIncome],1), "0.0")

Advanced Level (21–30)

Customer Code: CustomerCode = LEFT(DimCustomer[LastName],2) & RIGHT(DimCustomer[CustomerKey],2)

Validate Email: ValidEmail = IF(RIGHT(DimCustomer[EmailAddress],4) = ".com" && CONTAINSSTRING(DimCustomer[EmailAddress],"@"), "Valid", "Invalid")

Extract Domain Name: DomainName = RIGHT(DimCustomer[EmailAddress], LEN(DimCustomer[EmailAddress]) - FIND("@", DimCustomer[EmailAddress]))

Mask Phone Except Last 4 Digits: MaskedPhoneNum = REPT("*", LEN(DimCustomer[Phone])-4) & RIGHT(DimCustomer[Phone],4)

Proper Casing Last Name: ProperLastName = UPPER(LEFT(DimCustomer[LastName],1)) & LOWER(MID(DimCustomer[LastName],2,LEN(DimCustomer[LastName])))

Replace Multiple Spaces in Occupation: CleanOccupation = SUBSTITUTE(DimCustomer[EnglishOccupation], " ", " ")

Generate Custom ID: CustomID = LEFT(DimCustomer[FirstName],1) & LEFT(DimCustomer[LastName],1) & "_" & YEAR(DimCustomer[BirthDate])

Remove Hyphens & Convert Phone: PhoneNumber = VALUE(SUBSTITUTE(DimCustomer[Phone], "-", ""))

Categorize Customers by Education & Income: CustomerSegment = SWITCH(TRUE(), DimCustomer[EnglishEducation] = "Graduate Degree" && DimCustomer[YearlyIncome] > 90000, "Elite", DimCustomer[EnglishEducation] = "Bachelors" && DimCustomer[YearlyIncome] >= 60000 && DimCustomer[YearlyIncome] <= 90000, "Professional", DimCustomer[EnglishEducation] = "High School", "Basic", "Other")

Customer Count by Gender Selection: CustomerCountByGender = VAR SelectedGenders = VALUES(DimCustomer[Gender]) RETURN IF(COUNTROWS(SelectedGenders) = 0, COUNTROWS(DimCustomer), IF(COUNTROWS(SelectedGenders) = 1, CALCULATE(COUNTROWS(DimCustomer), DimCustomer[Gender] IN SelectedGenders), "Multiple Values Selected"))