Power BI - lesson 12

Basic Level (1–10)

1 Concatenate First and Last Name

```dax
CopyEdit
FullName = DimCustomer[FirstName] & " " & DimCustomer[LastName]
```

2 Email Uppercase

```dax
CopyEdit
Email_Upper = UPPER(DimCustomer[EmailAddress])
```

3 First 3 Characters of First Name

```dax
CopyEdit
First3_FirstName = LEFT(DimCustomer[FirstName], 3)
```

4 Count Characters in Last Name

```dax
CopyEdit
LastName_Length = LEN(DimCustomer[LastName])
```

5 First Name Lowercase

```dax
CopyEdit
FirstName_Lower = LOWER(DimCustomer[FirstName])
```

6️⃣ Trim Spaces in EnglishEducation

```dax
CopyEdit
Education_Trim = TRIM(DimCustomer[EnglishEducation])
```

7️⃣ Repeat '*' Equal to First Name Length

```dax
CopyEdit
StarRepeat = REPT("*", LEN(DimCustomer[FirstName]))
```

8️⃣ Last 4 Characters of Phone Number

```dax
CopyEdit
Phone_Last4 = RIGHT(DimCustomer[Phone], 4)
```

9️⃣ Yearly Income to Currency

```dax
CopyEdit
Income_Currency = FORMAT(DimCustomer[YearlyIncome], "$#,##0.00")
```

🔟 Check if FirstName and LastName are the Same

```
dax
CopyEdit
Name_Same = IF(DimCustomer[FirstName] = DimCustomer[LastName], TRUE
(), FALSE())
```

Intermediate Level (11–20)

1️⃣1️⃣ Find 'Manager' (Case Sensitive)

```
dax
CopyEdit
Has_Manager_CS = IF(FIND("Manager", DimCustomer[EnglishOccupation], 1,
0) > 0, TRUE(), FALSE())
```

1️⃣2️⃣ Search 'graduate' (Case Insensitive)

```
dax
CopyEdit
Has_Graduate_CI = IF(SEARCH("graduate", DimCustomer[EnglishEducation],
1, 0) > 0, TRUE(), FALSE())
```

1️⃣3️⃣ Characters 3–7 from First Name

```
dax
CopyEdit
FirstName_3to7 = MID(DimCustomer[FirstName], 3, 5)
```

1️⃣4️⃣ Replace Area Code with XXX

```dax
CopyEdit
Phone_ReplaceArea = "XXX" & MID(DimCustomer[Phone], 4, LEN(DimCustomer[Phone]) - 3)
```

1 5 BirthDate as DD-MM-YYYY

```dax
CopyEdit
BirthDate_Format = FORMAT(DimCustomer[BirthDate], "DD-MM-YYYY")
```

1 6 Initial + Last Name

```dax
CopyEdit
Initial_LastName = LEFT(DimCustomer[FirstName], 1) & "." & DimCustomer[LastName]
```

1 7 Capitalize First Letter, Lowercase Rest

```dax
CopyEdit
FirstName_Capitalize = UPPER(LEFT(DimCustomer[FirstName],1)) & LOWER(MID(DimCustomer[FirstName],2,LEN(DimCustomer[FirstName])-1))
```

1 8 Substitute Dashes with Spaces

```dax
CopyEdit
```

```dax
Phone_DashToSpace = SUBSTITUTE(DimCustomer[Phone], "-", " ")
```

1️⃣9️⃣ Birth Year as Number

```dax
dax
CopyEdit
BirthYear_Num = VALUE(YEAR(DimCustomer[BirthDate]))
```

2️⃣0️⃣ Yearly Income Rounded 1 Decimal (No Commas)

```dax
dax
CopyEdit
Income_1Decimal = FORMAT(ROUND(DimCustomer[YearlyIncome], 1), "0.0")
```

Advanced Level (21–30)

2️⃣1️⃣ Customer Code (First 2 LastName + Last 2 CustomerKey)

```dax
dax
CopyEdit
CustomerCode = LEFT(DimCustomer[LastName], 2) & RIGHT(DimCustomer[CustomerKey], 2)
```

2️⃣2️⃣ Validate Email Ends '.com' & Has '@'

```dax
dax
CopyEdit
Email_Valid = IF(
    RIGHT(DimCustomer[EmailAddress], 4) = ".com" && FIND("@", DimCustomer[EmailAddress], 1, 0) > 0,
    TRUE(),
```

```
    FALSE()
)
```

2️⃣3️⃣ Extract Domain from Email

```dax
CopyEdit
Email_Domain = RIGHT(DimCustomer[EmailAddress], LEN(DimCustomer[EmailAddress]) - FIND("@", DimCustomer[EmailAddress]))
```

2️⃣4️⃣ Mask Phone Except Last 4 Digits

```dax
CopyEdit
Phone_Masked = REPT("*", LEN(DimCustomer[Phone]) - 4) & RIGHT(DimCustomer[Phone], 4)
```

2️⃣5️⃣ Proper Case Last Name (Manual)

```dax
CopyEdit
LastName_Proper = UPPER(LEFT(DimCustomer[LastName],1)) & LOWER(MID(DimCustomer[LastName],2,LEN(DimCustomer[LastName])-1))
```

2️⃣6️⃣ Replace Multiple Spaces in Occupation

```dax
CopyEdit
Occupation_SingleSpace = TRIM(SUBSTITUTE(DimCustomer[EnglishOccupation], "  ", " "))
```

2️⃣7️⃣ Custom ID: Initials + Birth Year

```dax
CopyEdit
Custom_ID = LEFT(DimCustomer[FirstName],1) & LEFT(DimCustomer[LastName],1) & "_" & YEAR(DimCustomer[BirthDate])
```

2️⃣8️⃣ Remove Hyphens & Convert Phone to Number

```dax
CopyEdit
Phone_NoHyphen_Num = VALUE(SUBSTITUTE(DimCustomer[Phone], "-", ""))
```

2️⃣9️⃣ Customer Segmentation

```dax
CopyEdit
Customer_Segment =
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"
)
```

3️⃣0️⃣ Gender Measure

```dax
CopyEdit
Gender_Customer_Count =
```

```
VAR SelCount = DISTINCTCOUNT(DimCustomer[Gender])
RETURN
IF(
    ISFILTERED(DimCustomer[Gender]),
    IF(SelCount = 1, COUNTROWS(DimCustomer), "Multiple Values Selected"),
    COUNTROWS(DimCustomer)
)
```