Excel Training Handout

Goal: Build confidence using modern Excel features — SUMIFS, XLOOKUP, spill functions (UNIQUE/FILTER/SORT), Tables and data validation

1. Create tblFunds on Funds Sheet
2. Add Column Chart Description
3. Use xlook up formula to add description =XLOOKUP(B2,tblChart[Account],tblChart[Description],"",0)
4. Add column for Object Description
5. Use xlook up formula to add object description =XLOOKUP(C3,tblObj[Object],tblObj[Description],"",0)
6. Add column for Month
7. Use a Text formula to add the month. =Text(i2,”MMMM”)
8. Add New Sheet. We are going to build a dynamic worksheet using Unique, Sort, Sumifs, Xlookup, Data Validation.
9. Cell A2 [Account], B2[Description], C2[Debit], D2[Credit], E1[Fund], H1[Month].
10. We are going to build our unique list. Cell Q1 [=Unique[tblFunds[Fund]). Cell S1[=Unique[tblFunds[Month])
11. Now we are going to setup Data Validation for Fund and Months. Cell F1; Go to Data Ribbon<Data Validation<Choose List<Source: =Q1#. Cell I1; Go to Data Ribbon<Data Validation<Choose List<Source: =S1#.
12. Go to Cell A3 [=Unique[tblFunds[Function]). You will notice that account codes are not sorted in order. Now click in the fx box and type =Sort(Unique[tblFunds[Function]). This sorts the column in numerical order.
13. Go to Cell B3[Description] =XLOOKUP(A3#,tblChart[Account],tblChart[Description],"",0)
14. Go to Cell C3[Debit] =SUMIFS(tblFunds[Debit],tblFunds[Function],A3#,tblFunds[Fund],F1,tblFunds[Month],I1)
15. Go to Cell D3[Credit] =SUMIFS(tblFunds[Credit],tblFunds[Function],A3#,tblFunds[Fund],F1,tblFunds[Month],I1)
16. Now go to Cell F1 and change the fund to 116 and see the amounts change.
17. Now to the ExtraMonths sheet. Go to cell A2 and use the shortcut key Shift + ctrl + End [This highlights the entire sheet starting in cell A2]. Right click and copy and go to funds worksheet.
18. Click in Cell A1 press the END key and the down arrow. This takes you to the bottom of the worksheet. Move 1 cell down and paste.
19. You notice that Chart Descriptions, ObjectDescription, Month, and Year automatically updated.
20. Now go to Sheet1 and you notice our list of months automatically updated as well.
21. Now we are going to use the filter function. Click the + to add new sheet.
22. In cell V1(=Unique(tblFunds[Type]), cell X1 (=tblFunds[Year]). This gets our filter list
23. In cell F1 (Type), Cell H1(Year)
24. Now we are going to setup Data Validation for Type and Year. Cell G1; Go to Data Ribbon<Data Validation<Choose List<Source: =v1#. Cell I1; Go to Data Ribbon<Data Validation<Choose List<Source: =X1#.
25. Go to the Funds worksheet and copy headers. Then on sheet2 cell A4 type the following: =FILTER(tblFunds, (tblFunds[Type]=G1)\*(tblFunds[Year]=I1), "No Match")

# New Functions

**Text Manipulation Functions**

1. **TEXTBEFORE** – Returns text occurring *before* a specified delimiter.
2. **TEXTAFTER** – Returns text occurring *after* a specified delimiter.
3. **TEXTSPLIT** – Splits a text string into multiple segments (rows or columns) using one or more delimiters

**Array Manipulation Functions**

**Combining Arrays**  
4. **VSTACK** – Vertically stacks multiple arrays into one.  
5. **HSTACK** – Horizontally stacks multiple arrays into one.

**Reshaping Arrays**  
6. **TOROW** – Converts a multi-cell array into a single row.  
7. **TOCOL** – Converts a multi-cell array into a single column.  
8. **WRAPROWS** – Wraps a single row or array into multiple rows of given width.  
9. **WRAPCOLS** – Wraps a single column or array into multiple columns of given height.

**Resizing / Slicing Arrays**  
10. **TAKE** – Retrieves a specified number of rows or columns from the start or end of an array.  
11. **DROP** – Drops a specified number of rows or columns from the start or end of an array.  
12. **CHOOSEROWS** – Picks rows by index from an array.  
13. **CHOOSECOLS** – Picks columns by index from an array.  
14. **EXPAND** – Expands an array to a new specified dimension, optionally filling with a default value.