

How to Excel - Part 1



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Exercise 1a: Extract data from CUFS into Excel

- Log into CUFS with a GL responsibility
- Select **Reports > Standard > single request**
- In the name section select the **list of values** button
- Select **Account Analysis – Transaction Detail – Excel Version (UFS)**

- Check that the report is not set to print by clicking on **Options** – the printer copies, if listed, should be set to zero
- Click **Submit**

- Once the report has run (click **refresh data** if it doesn't show) select **view output**
- When prompted select **Save as** and save the file to the desktop with the filename:
Exercise1_CUFS_your initials

- Once the file has downloaded, select **Open** and check that there is some data in the file before closing it down.



Exercise 1b: Extract data from Cognos into Excel

From the main UFS page, select **Cognos reporting**

Login with your Raven ID

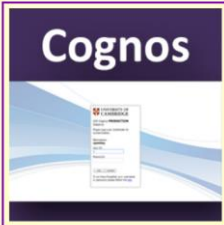
Log in with your Cognos User ID.

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.....

Log in

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CUFS Datamart: Current status

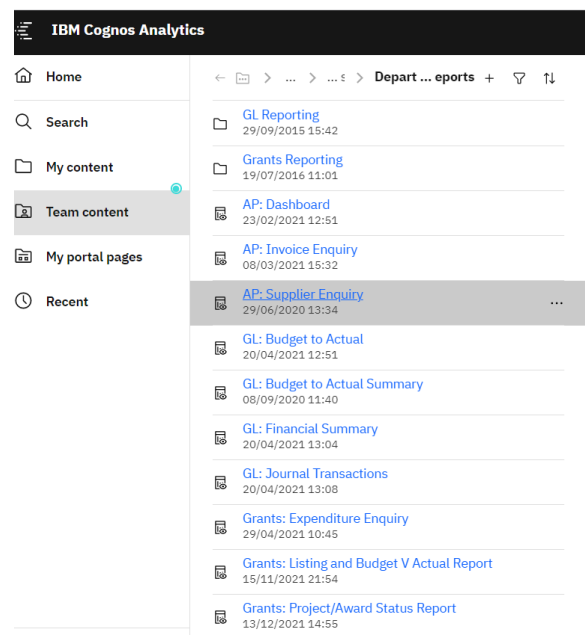
Datamart name	Status	Last successful build time
AP Datamart	DATAMART OK	27-JAN-22 06:27:16
AP Invoice Payments	DATAMART OK	27-JAN-22 02:15:25
AP Invoices	DATAMART OK	27-JAN-22 02:37:29
Fee Billing	DATAMART OK	27-JAN-22 01:26:13
General Ledger	DATAMART OK	27-JAN-22 00:59:58
Grants Datamart	DATAMART OK	27-JAN-22 04:54:17
P2P	DATAMART OK	27-JAN-22 06:40:53
Sales Transactions	DATAMART OK	27-JAN-22 03:01:00
X5	DATAMART OK	27-JAN-22 06:27:46

Cognos login >

- Select **Team Content** from the left hand menu
- Select the **Live** folder

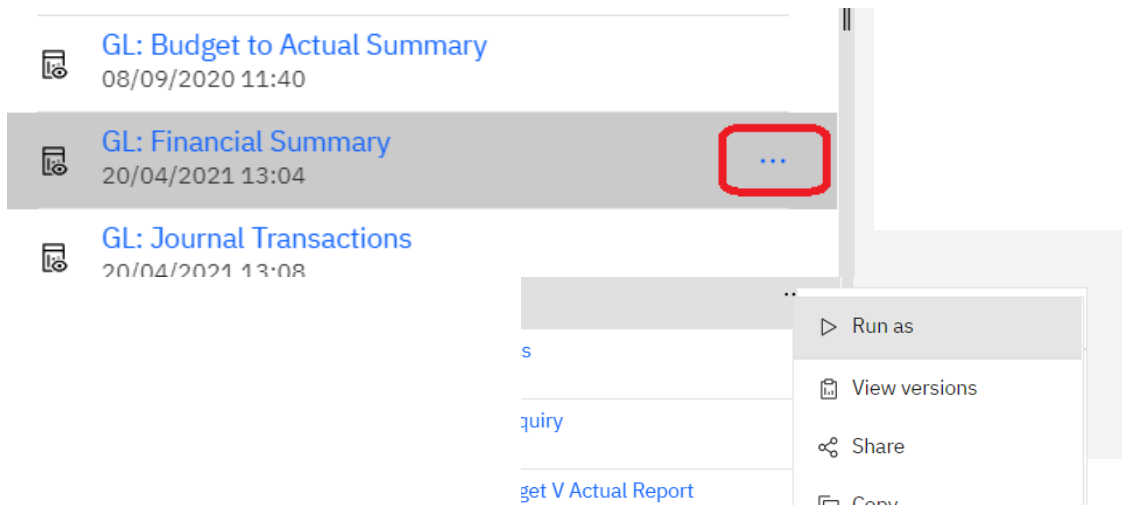


- Open the **Departmental (Shared) Reports** folder, this contains a standard set of reports which are common across all departments.

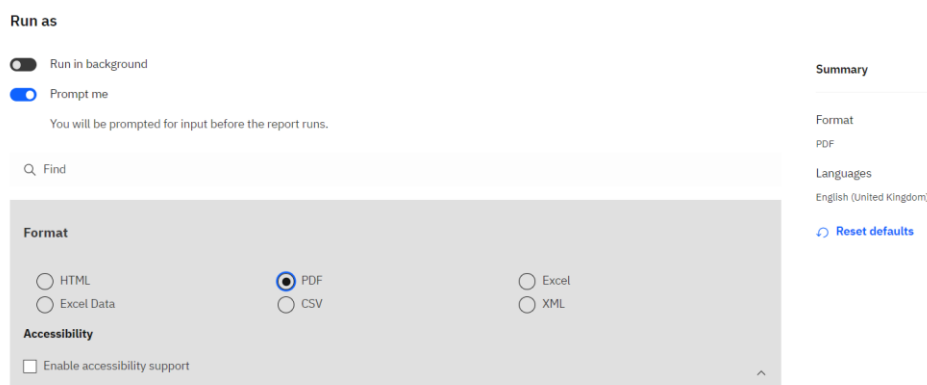


Running a report

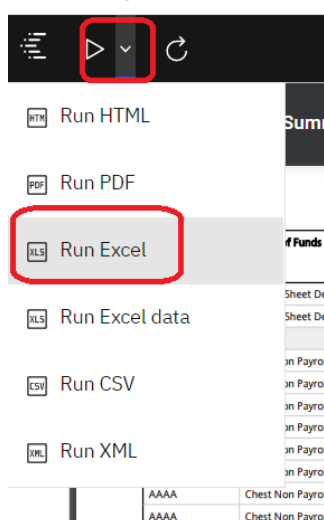
- Select the 3 dots to the right of the GL Financial Summary report, then choose **Run As**



- Select **PDF** (this will enable changes to be made more easily after the report has run)



- Enter the required parameters and select **Finish** to run the report
- Once the report has run it can be easily changed to Excel
- Select the drop down arrow in the top left of the screen and choose **Run Excel**



An Excel file will be created which can be saved where required

The same principle can be used for any Cognos report

Exercise 2: Basic formatting

Open the file **Exercise 2_data**

Task 1 – Unfreeze panes

The data has been imported with some of the panes set to scroll

- Select the **view** tab in the ribbon
- Click the **Freeze panes** option
- Select **unfreeze panes**

Task 2 – Delete columns

Delete columns Entity, Dept and Spare

- Select the relevant columns by clicking on the letters at the top of the column (hint: holding the Ctrl key will enable you to select multiple columns)
- Select the **Home** tab in the ribbon
- Click Delete in the toolbar
- Delete columns Ref 4, 6 and 10 (try and do them in one go)

Task 3 – Resize columns

Column A is too narrow to show the complete date

- Hover the cursor between the A and B at the top of the column, a 4 way cross should appear
- Double click the mouse to auto adjust the column to the correct width
- Do the same for column F

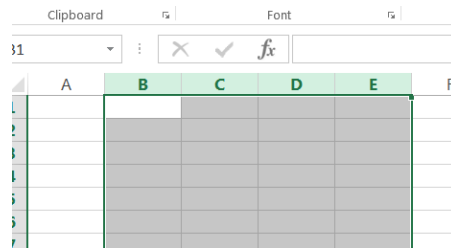
Task 4 - Hide a column

The batch name column contains information which might be useful but doesn't need to be visible all the time

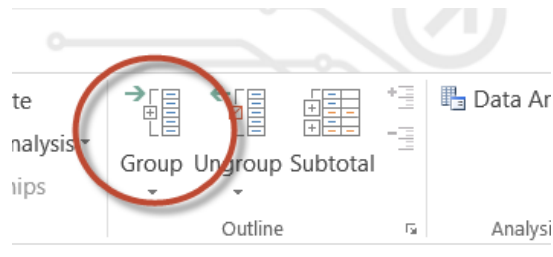
- Select the column
- Right click with the mouse
- Select **hide**

Group function as an alternative to hiding columns and rows

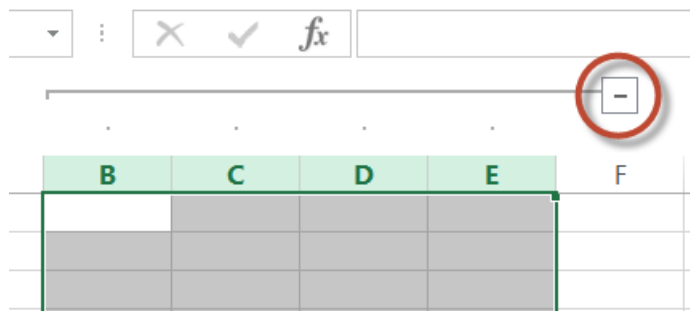
- Select the columns or rows that you want hidden



In the **data** tab select the group option



- The section can be hidden and unhidden using the button at the top



Task 5 – Freeze top row

It can be easier to navigate a spreadsheet when the top row with the headings is fixed

- Select the **view** tab in the ribbon
- Click the **Freeze panes** option
- Select **freeze top row**

Task 6 – Text wrapping

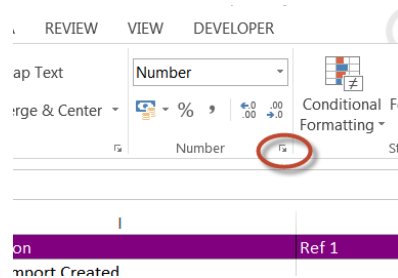
Sometimes the content of one cell is too wide for sensible width columns, the text wrapping function can be used to show the content on a wider row.

- Select the Description column
- Select the **home** tab in the ribbon
- Click the **Wrap text** option
- Manual resize the column by hovering between the two columns until the 4 way cross appears, click and drag to the desired width
- Do the same with columns Ref 1 and Ref 5

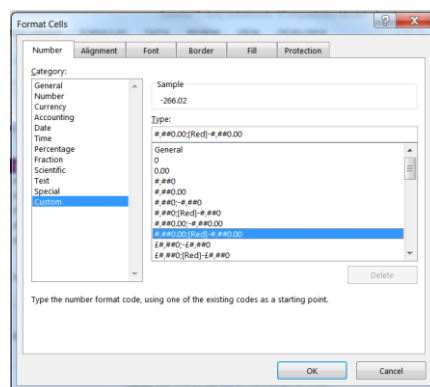
Task 7 - Changing the presentation of minus numbers

In accounting it is usual to present minus numbers with brackets rather than a minus sign. The amount column is currently showing them with a minus

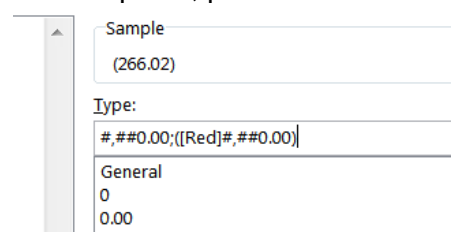
- Select the whole of the Amount column
- Select the **home** tab in the ribbon
- Click the arrow in the bottom right hand corner of the **Number** section



- Select **Number** and then **custom**
- Find the option with the red minus



- In the top box, put brackets round the second part and delete the minus sign



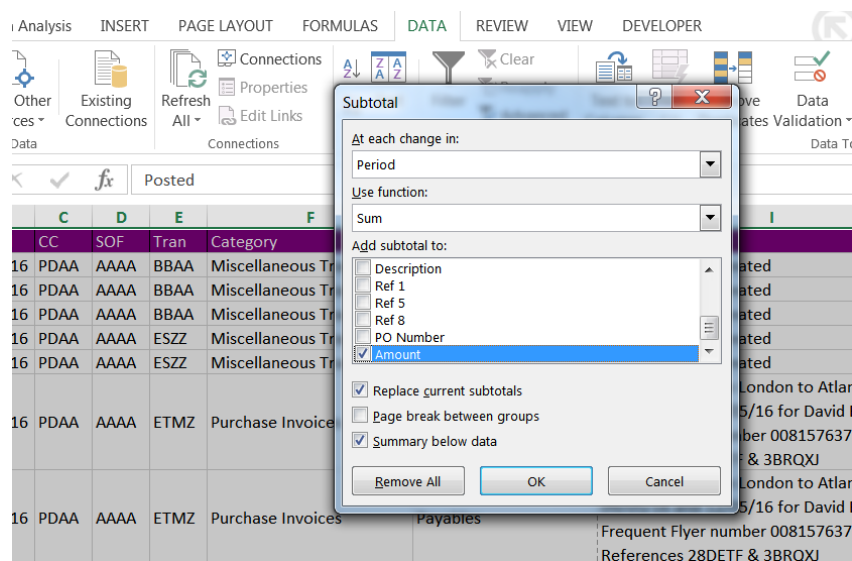
- Once you click **ok**, the minus numbers should have brackets

Task 8 – Subtotals

Large amounts of data can be more easily viewed with subtotals

- Select all the data (hint: use Ctrl, Shift, End)
- Select the **data** tab in the ribbon
- Click the **Subtotal** option
- If you get a message about a row being found above the data, click **yes** to include it
- The next screen allows you to set the specific requirements for the subtotal
- We will select subtotals by period showing the sum of transaction amounts for each period

Note: Use *At each change in: Period*. If this setting is left on Posted excel will take an extremely long time to calculate as it will add a new subtotal after almost every line.



Exercise 3: Basic formulas

Open the file **Exercise 3_data**

Task 1 – AutoSum

- Scroll to the bottom of the data in column **I**
- Select cell **I80** and click **AutoSum** in the toolbar
- It should select all of the data in the column
- Click **enter** and the total should appear

Task 2 – Multiplication

- In cell **J1** enter the formula **=I1*2**

Task 3 – Copying formulas

- In cell **J1** hover the mouse over the bottom right hand corner until a black + appears
- Double click with the mouse and the formula will be copied to every cell in the column

Task 4 – Division

- In cell **K1** enter the formula **=J1/2**
- The answer should be the same as in column **I**
- Copy this formula to the whole column using the steps in task 3

Task 5 – Recap

- Use the **AutoSum** function to total columns **J** and **K**
- Be careful when you get to column **K** that the correct range is selected

Exercise 4: Quick guide to excel shortcuts

Navigating a Spreadsheet

Ctrl + End	Going to last cell containing data (the bottom right corner)
Ctrl + Shift + End	Extends the selection of cells from the current point to the last used cell on the worksheet
Home	Moves to the beginning of a row in a worksheet.
Ctrl + Home	Returning to the top of your spreadsheet
Ctrl + Shift + Home	Extends the selection of cells from the current point to the first used cell on the worksheet
Shift + arrow keys	Selecting/highlighting a block of data
Ctrl + F / Shift + F5	Displays the Find window
Shift + F4	Repeats the last find action
Ctrl + H	Find and replace window
Ctrl + A	If the worksheet contains data, CTRL+A selects the current region. Pressing CTRL+A a second time selects the entire worksheet.
Shift + Arrow Key	Extends the selection of cells by one cell.
Ctrl + Spacebar	Selects an entire column in a worksheet.
Shift + Spacebar	Selects an entire row in a worksheet.
Ctrl + Shift + Spacebar	Selects an entire worksheet. Repeat function if the worksheet contains data
Ctrl + Shift + Arrow	Selects row or column of data
F5 or Ctrl + G	Go to (Allows you to go to a named section of the spreadsheet)
Alt + ;	Narrow search to only include visible cells (unselecting hidden cells)

Exercise 5: Consolidation (1)

Task 1

Delete columns **R** to **AQ**

Task 2

Adjust the width of columns **E** to **P** so that the data fits

Task 3

Use the Wrap Text function and adjust the column widths manually to make them more sensible

Task 4

Format all the number cells so that negative numbers show in red with brackets rather than the minus sign

Task 5

Sort the data by source of funds

Hint: use the **Custom Sort** function

Task 6

Hide all the number columns apart from column **H**

Task 7

Insert subtotals to show total expenditure for each source of funds

Exercise 6: Advanced formulas

Task 1 - Formatting

- Format column T to show the numbers with the comma separator to 2dp
- Format column T to show minus numbers in brackets (the text should be black)

Task 2 – AVERAGE

- In cell T422 enter the formula =AVERAGE(cell references for the column)

Hint: use the shortcuts from Exercise 4 to select the cells

- Format this cell to Calibri font size 14 in bold

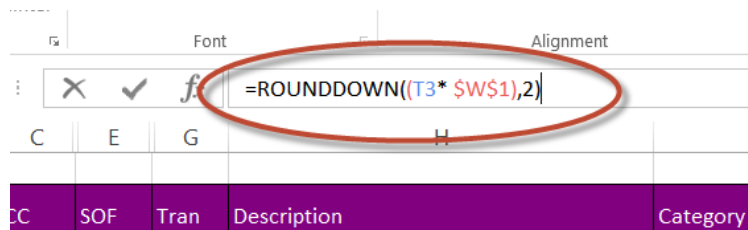
Task 3 – ABSOLUTE cell reference

OF	Tran	Description	Category	PO Number	Amount	VAT
AAB	EZC	Research Grants: Other Costs	Miscellaneous Transaction		31.66	* \$W\$1
AAC	EZC	Research Grants: Other Costs	Miscellaneous Transaction		2,029.70	

- In cell V1 type VAT, in W1 enter the rate of 20%
- Format both these cells with a yellow background
- In cell U2 enter the heading VAT
- In cell U3 enter a formula to multiply the amount by the VAT rate (use the cell reference rather than typing the rate)
- Before copying this formula to the rest of the cells you need to make the VAT rate cell absolute (this means that the cell reference won't change when the formula is copied)
- Select the cell and in the formula bar add a \$ before and after the letter part of the reference
- Copy the formula to rest of the column, in each cell the formula should multiply by W1
- Format the column to show the minus numbers in brackets and all the figures to 2dp

Task 4 – ROUND

- VAT is rounded down and so the formula can be adjusted to account for this automatically
- Use the formula in cell U3 as the starting point and then copy it to the whole column
- Select the cell and in the formula bar adjust the formula to:



- This formula tells Excel that the answer to the calculation should be rounded down and shown to 2 decimal places
- Copy this formula to the rest of the column

Task 5 – Adding

- In cell **V2** enter the title Total
- Use a formula to add the net amount and VAT together for each row
- Format the numbers as before

Task 6 – IF function

- The **IF** function can output text or perform a calculation based on certain conditions being met
- The IF function is split into 3 parts:
 - The condition that must be met
 - What to show or do if the condition is met
 - What to show or do if the condition is not met
- In cell **W3** enter the following formula:

=IF(V3>1000,"High"," ")

 - If the total exceeds £1,000
 - Display the text High
 - If it is below £1,000 display an empty cell
- Copy the formula to the rest of the column and check that it works as expected

Task 7 – Test

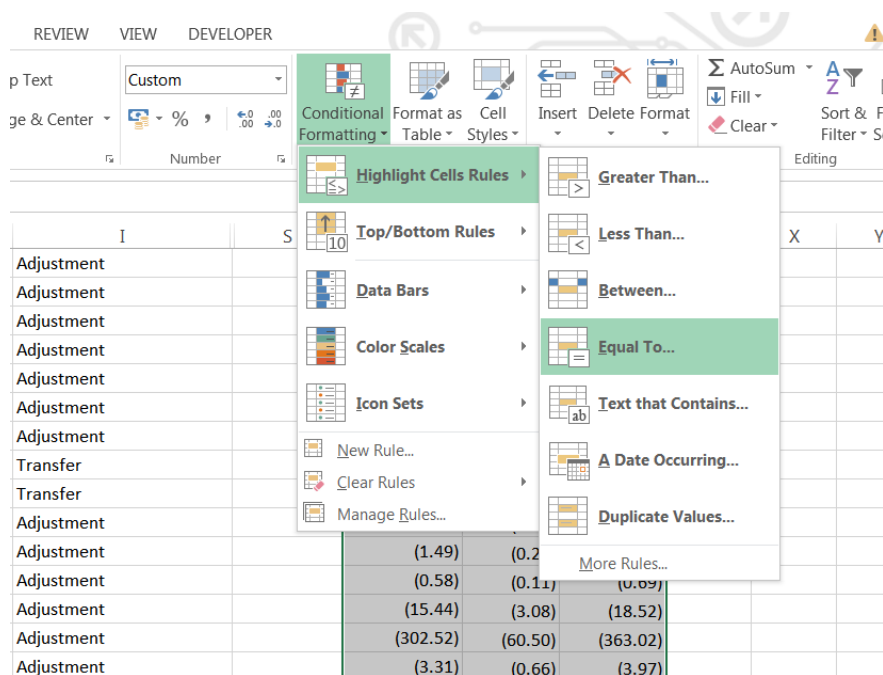
- Change the VAT rate to 50% and check that the results all adjust accordingly

Exercise 7: Advanced formatting

Open **Exercise 7_CUFS data**

Task 1 – Conditional formatting

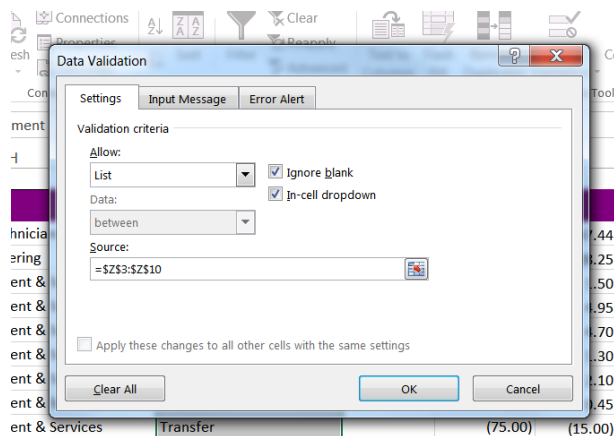
- Select the data in columns **T, U** and **V**
- Highlight the cells showing 0
- Select the **Conditional Formatting** option in the **Home** tab
- Select the **Highlight Cell Rules** option and then choose **Equal To**
- When prompted, enter 0 and choose the format that you want



Task 2 – Data validation

- Data validation enables restrictions to be placed on the content of a range of cells (this could be numeric or written)
- In column **Z** type the following list of categories:
 - Adjustment
 - Transfer
 - Purchase invoices
 - Depr.
 - Misc.
 - Burden cost
 - Sales invoices
 - Revenue

Z	AA
Adjustment	
Transfer	
Purchase invoices	
Depr.	
Misc.	
Burden cost	
Sales invoices	
Revenue	



- Select all the data in column **I**
- Select **Data Validation** in the **Data** tab
- Select the **list option** and choose the range of the list as the source
- A dropdown box will appear on each cell in the range from which the cell content can be chosen
- Select the column range again and choose **circle invalid data** from the data validation tab

- Work through each of the errors identified to ensure that the correct option is chosen
- Run the invalid data check again to ensure that they are all corrected
- Hide column **Z** to tidy up the spreadsheet
- Try and enter a different word in any of the cells in column **I** to check the validation works

Task 3 – Sorting and subtotals (recap)

- Sort the data by transaction code and then posted date
- Subtotal by transaction code and total amount
- Delete any sections where the transactions cancel out

7	07-FEB-2017	PDGF	GBAA	EAEZ	Photographic Equipment & Services	Transfer		7.50	1.50	9.00
8	07-FEB-2017	PDGF	GBAA	EAEZ	Photographic Equipment & Services	Transfer		24.75	4.95	29.70
9	07-FEB-2017	PDGP	GBAA	EAEZ	Photographic Equipment & Services	Transfer		23.50	4.70	28.20
10	07-FEB-2017	PDGR	GBAA	EAEZ	Photographic Equipment & Services	Transfer		6.50	1.30	7.80
11	07-FEB-2017	PDGU	GBAB	EAEZ	Photographic Equipment & Services	Transfer		10.50	2.10	12.60
12	07-FEB-2017	PDIB	AAAA	EAEZ	Photographic Equipment & Services	Transfer		2.25	0.45	2.70
13	07-FEB-2017	PDSB	GAAB	EAEZ	Photographic Equipment & Services	Transfer		(75.00)	(15.00)	(90.00)
14				EAEZ Total						0.00

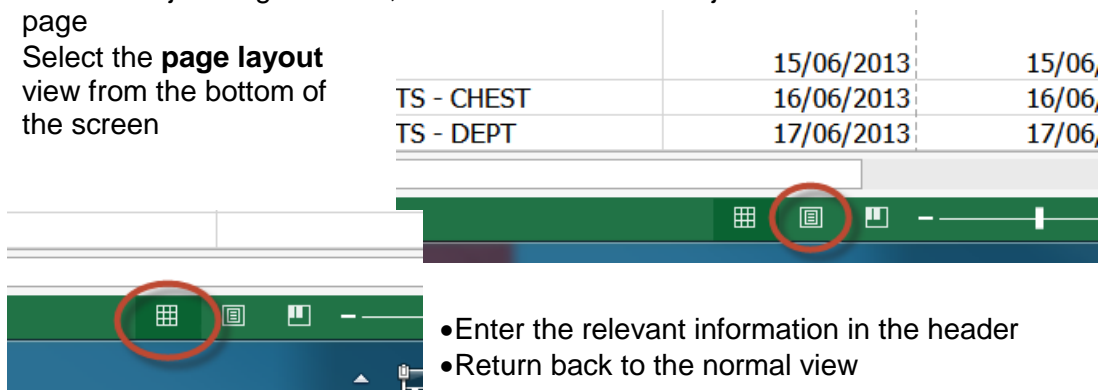
Exercise 8: Consolidation (2)

Task 1 – Formatting and presentation

- Adjust the column widths so that the data shows in a sensible way
- Use the wrap text function to reduce the width of very wide columns
- Show the amounts with the **comma separator, to 2dp and showing minus numbers in brackets**
- Format the date columns as **Date** and ensure that it is just the date that is displayed
- Format the headings as **bold** and font **size10**
- Hide columns J, K and L
- Delete transaction date column

Task 2 – Page headings

- Put the Project Organisation, Award Number and Project Short Code as a title on the page
- Select the **page layout** view from the bottom of the screen



- Enter the relevant information in the header
- Return back to the normal view

- Delete the first 3 columns as the information is now in the page header
- Delete the new column J

Task 3 – Data sorting

- Sort all the data by **Expenditure Category**, **Expenditure Type** and then **Date**
- Insert subtotals in the data at each change in **Expenditure Type**, showing **Total Expenditure**

Task 4 – IF function

- Enter a formula in column J which enters “**Outflow**” if the amount is positive and “**Inflow**” if it is negative

Task 5 – Conditional formatting

- Use conditional formatting in column J to show the outflow cells shaded red and the inflow shaded green
- Use conditional formatting in column I to show the highest 2 figures shaded yellow (NB: don't include the Grand Total)

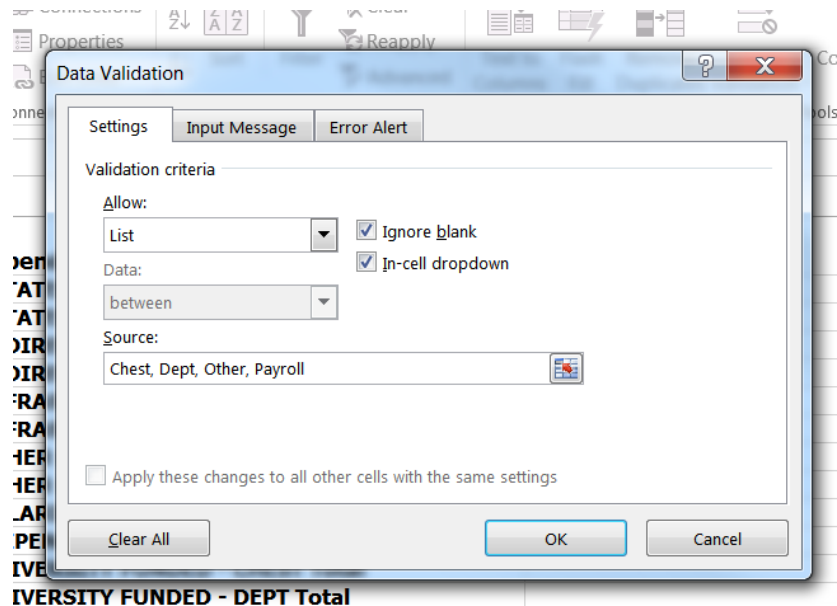
Task 6 – Data validation

- In column K use a data validation list to allow a choice of:

- Chest
- Dept
- Other
- Payroll

NB you can either enter these in the box (see below) or link to a list on the spreadsheet as in Exercise 7

- Enter the most appropriate description for each row



Task 7 – Printing

- Enter the print preview screen by clicking **File, Print** or **Ctrl P**
- Set the printing to **landscape** and ensure that it **fits to 1 page**
- Use the arrow in the top left corner to return to the main screen

