

Introduction To Spreadsheets

WICOP @ WEVH

Exercise 1 - Creating a simple Budget Spreadsheet

1. Start the spreadsheet application by double clicking the **Microsoft Office** Folder, then double click **Microsoft Excel**.
2. In the top left corner of the spreadsheet (You should be in cell **A1**) type in the heading Project Budget 2000/2001, make it bold and increase the point size to 12.
3. Enter the Row Headings Below and type the figures in the column B. Format the number cells (column B) as **Currency**.

Microsoft Excel – Book 1								
	A	B	C	D	E	F	G	H
1	Project Budget 2000/2001							
2								
3	Staff Wages	25000						
4	Staff Expenses	2000						
5	Volunteer Expenses	4000						
6	Heat/Rent	4500						
7	Consumables	1200						
8	Publicity	600						
9	Equipment	4500						
10	Software	400						
11	Consultancy fees	600						
12	TOTAL							

4. Save the spreadsheet as Project Budget.xls
If the data does not fit you must widen the column - To do this; move the mouse **between** the column labels **A and B**. Hold down the mouse arrow when you see the **double arrow**. Drag to new position.
7. **Delete the row** for software (This expenditure comes under equipment). To do this; **highlight the row** by clicking on the row label 10 (Note: the first cell will not look highlighted. It will stay a white colour).

 Now click the **Edit** menu and then click **Delete**.
8. Now you must use a formula to add up the column of numbers.
 - a/ click in **B11**
 - b/ click the AutoSum button (Backwards E)
 - c/ press Enter

- Staff Expenses should have been 1,500 change the entry in **B4** (see the total in **B11** change?)
- Change the currency cells to show whole £s, by highlighting the cells and clicking the Decimal Decrease twice, this will reduce you to 0 decimal points and display whole numbers. Save the Budget.

Exercise 2 - Creating a simple Cashflow - Using the Sum Formula

- Open up your Project Budget.xls. Change the title and add the text/numbers as below. Right align and bold all headings in Row 2. Remember don't type the £s sign, just type in the numbers and format as currency

	A	B	C	D	E	F	G	H
	3 monthly Cashflow							
		Budget	June	July	August	Total	Average Per month	
	Staff Wages	£ 25,000	£ 1,100					
	Staff Expenses	£ 1,500	£ 90					
	Volunteer Expenses	£ 4,000	£ 320					
	Heat/Rent	£ 4,500	£ 400					
	Consumables	£ 1,200	£ 100					
	Publicity	£ 600	£ 100					
	Equipment	£ 4,500	£ 3,000					
	Consultancy fees	£ 600	£ 0					
	TOTAL	£ 41,900						

Remember: Words automatically go to the **left** of a cell, **numbers** to the **right**.

- Most of the entries for each month are the same or similar so copy the outgoings for June to July and August. Highlight all the outgoings for June, place your cursor on the small black box at the bottom right of the highlight, the cursor should become a small black cross. Press and hold down and drag the mouse right across July and August.
- Change your figures for July and August so they match the ones below

	Budget	June	July	August
Staff Wages	£ 25,000	£ 1,100	£ 1,100	£ 1,100
Staff Expenses	£ 1,500	£ 90	£ 90	£ 90
Volunteer Expenses	£ 4,000	£ 320	£ 320	£ 320
Heat/Rent	£ 4,500	£ 400	£ 400	£ 400
Consumables	£ 1,200	£ 100	£ 100	£ 100
Publicity	£ 600	£ 100	£ 40	£ 100
Equipment	£ 4,500	£ 3,000	£ 100	£ 0
Consultancy fees	£ 600	£ -	£ 120	£ -
TOTAL	£ 41,900			

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6. You are now going to Add the total costs for June (BUT don't use the AutoSum formula) Place your cursor in C11, type =sum(, highlight the cells you want to add, and press) and then **Enter**.
7. Add the total for staff wages placing the result in F3. First try using the AutoSum feature

What does it do that you don't want?

Press in the formula bar and press delete. Use the =sum formula

8. Copy the formula down for all the Totals, (i.e. click in F3, place cursor over the small black square in the bottom right of the cell, press and hold down and drag to F11)
9. Find the Average for June, July and August for Staff Wages by clicking in G3, click on = on the formula bar, type AVERAGE and highlight C3 to E3, press Enter, again copy the formula down for each item in the Cashflow. Save the spreadsheet.

Exercise 3 - More Formulas

You are now going to add a column in between Budget and June to hold the quarterly budget figures which have been calculated from the yearly figures.

1. Open up your Project Budget.xls. Use the column selector to highlight column C
2. Click Insert then Columns to insert a new column and move all columns over
3. Give the column the heading, Quarterly Budget and widen the column as necessary
4. You are now going to create a formula in C3 which divides the yearly budget by 4 to get the quarterly figure. Click = on the Formula bar, click on B3 which holds the figure for Staff Wages, press / (which is the symbol for divide) and type 4, and press Enter
5. Copy the formula for all the rows.

You are now going to create a Logical Formula which will tell you if you are over or under budget for the Quarter

1. Make sure Project Budget.xls is Open. Go to A14 and type Budget Status
2. Click on = and type IF(G11>C11, "Over Budget", "Under Budget"). In translation this formula is saying if the figure in G11 (the actual quarterly spend) is bigger than C11 (the budget for the quarterly), give the answer Over Budget, and if it is not true give the Answer Under Budget.
3. Save the Spreadsheet

Optional Exercise (if we have time): Obviously this doesn't give us the full story, as certain budget headings are underspent and others overspent. If you have time create a formula in Column I which calculates how much over or underspent each budget heading is.

1. Make sure Project Budget.xls is Open. Give I2 the heading **Left in budget/Overspent**
2. In I3 type =, then click on the cell which contains the quarterly budget figure for Staff Wages (C3) then press - (minus), then click on the cell which contains the actual spend for the quarter (G3), press Enter.

3. Copy the formula to all rows
4. Some of the figures are overspend, to make these easier to identify, we are going to change the format of the cells to show them in red.

Highlight all the cells which contain numbers in column I, click Format, then cells, choose Currency from the list, Choose the fourth option down which shows negative amounts in red with a minus sign. Also select the £ sign as the symbol to be shown and change 2 (decimal places) to 0.

Exercise 4 – Formatting your Spreadsheet

Using Headers and Footers, and Lines and Shading can make your spreadsheet easier to read.

1. Print Preview your Spreadsheet, you will see that it goes onto two sheets, change the Page Layout so it displays in Landscape, still in Print Preview, click Setup.. then Landscape then OK.
2. Stay in Print Preview, click Setup.... Again, and then click Header and Footer, click on Custom Header, type your name in the left hand box, tab over to the right hand section, click the icon for inserting the file name (second from right). Add any other features you like. Click OK, then OK again to exit Setup, click Close to come out of Print Preview.
3. Using Borders, Fill Colour, bold and other formatting increase the readability/attractiveness of your spreadsheet, see example.
4. Save and Print your spreadsheet.

Exercise 5 – Creating Cashflow

Cashflows include

- **Budget for the Year – what is coming in and what is going out**
- **Actual spends for each month – again what comes in what goes out**
- **Summary of spends so far**

1. Open the Spreadsheet file Accounts2001.xls .
2. Check through the entries already made in the spreadsheet, are you clear about incoming's outgoings, balance carried forward, actual spend etc?????
3. Create a formula which adds the incomings (excluding balance brought forward) for the Totals so far column, place the formula in C9. Copy the formula across from May to April, so that each months incomings are displayed in the incomings total row.
4. Create a formula which adds the outgoings for the Totals so far column, place the formula in C21. Copy the formula across from May to April, so that each months outgoings are displayed in the outgoing total row.
5. The balance for each month must be carried forward to the 'Carried Forward' cell of the following month, i.e. what is left at the end of May must go to the beginning of June. Place a formula in E3 which references the balance at the end of May i.e. D23. Place your cursor in E3 and type =D23. Copy the formula across from May to April, so that the Carried forward figures as displayed for each month.

- The final thing to do is to create a formula which displays the balance for Totals so Far and each month. In C3 the Balance for Totals so Far, create a formula which adds the Carried forward to the Total Incomings and takes away the Total Outgoings, e.g. =C3+C9-C21. Copy this formula so that the Balance for each month is displayed in the Balance row.
- You have not yet entered in the actual figures for July, change the figures to

Outgoings	July
Staff Wages	2000
Staff Expenses	200
Volunteer Expenses	400
Heat/Rent	375
Consumables	200
Publicity	100
Equipment	0
Consultancy fees	0

The amount in Totals so far should change, you can then compare them to the Budget you set at the beginning of the year.

- Format all cells as 0 decimal places. Save and print

Exercise 6 – Creating Charts

- Open up Spreadsheet file Service_Users.xls
Who has been using our services?

	1997/1998	1998/1999	1999/2000	2000/2001
Men	98	120	170	60
Women	222	240	202	88
Total	320	360	372	148

- For your Annual Report, you are going to create a pie chart to display the percentage of Men and percentage of Women who have used your services in 1999/2000
- Highlight A3 to A4, the text Men, Women, press and hold down the Ctrl key and highlight D3 to D4, 170 and 202. Click on the chart button on the tool bar
- Click on Pie Chart, click Next, check the Pie Chart is displaying correctly, click Next, Enter a Title for the chart e.g. service users in 1999/2000.
- Click on Data Labels and click Show Percentage
- Click Next, click As New Chart and enter a short name for the chart
- A Chart sheet will have been created in your spreadsheet
- Create a Line Chart showing the Total Users of the Service by year since 1997
- Create a Bar Chart showing a comparison on the numbers of men and women using the service since 1997.

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