ELECTRONIC SPREADSHEET (ADVANCED)

Class X , UNIT 1: Electronic Spreadsheet (Advanced) (IT #402)

Session 2: LINK DATA AND SPREADSHEETS.

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ELECTRONIC SPREADSHEET (ADVANCED)

- SESSION 1: ANALYSE DATA USING SCENARIOS AND GOAL SEEK

- SESSION 2: LINK DATA AND SPREADSHEETS

- SESSION 3: SHARE AND REVIEW A SPREADSHEET

- SESSION 4: CREATE AND USE MACROS IN SPREADSHEET

Learning Outcome of this session

The students will be able to:

- Explain setting up multiple sheets

- Demonstrate creating reference to other sheets

- Identify hyperlinks to the sheet

- Explain creating hyperlinks

- Describe linking to external data, registered data sources

Introduction

In this chapter, we will learn how to create multiple sheets, and also to link the data in multiple sheets. It can be done in two ways, one is creating reference to other sheets/ documents by using keyboard and mouse, and other is by linking external data.

Setting up multiple sheets

Identifying sheets

When you open a new spreadsheet it has, by default, three sheets named Sheet1, Sheet2, and Sheet3. Sheets in Calc are managed using tabs at the bottom of the spreadsheet, as shown in Figure 1.
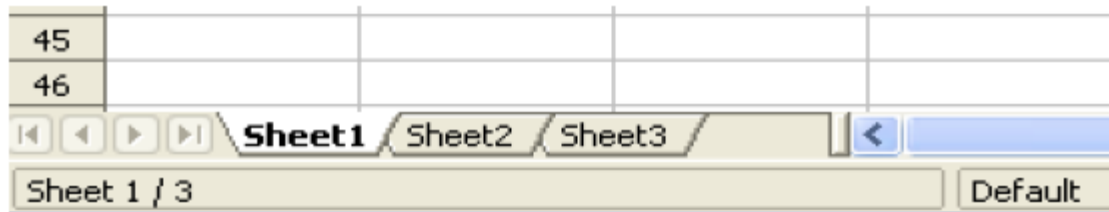

Figure 1: Default sheet tabs

Inserting new sheets

Inserting new sheets

There are several ways to insert a new sheet. The first step, in all cases, is to select the sheet that will be next to the new sheet. Then do any of the following:

- Select **Insert > Sheet** from the menu bar, or
- Right-click on the tab and select I**nsert Sheet**, or
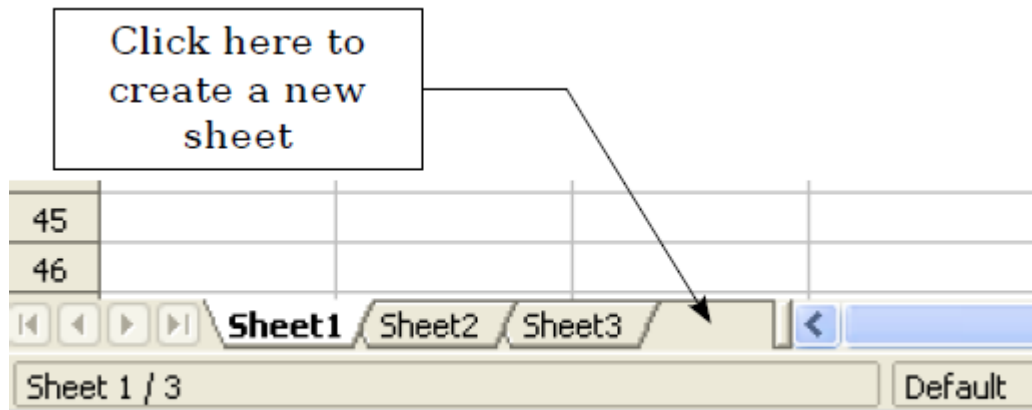- Click in an empty space at the end of the line of sheet tabs (see Figure 2).

Figure 2: Creating a new sheet

Inserting new sheets

Each method opens the Insert Sheet dialog (Figure 3). Here you can choose to put the new sheet before or after the selected sheet and how many sheets to insert.
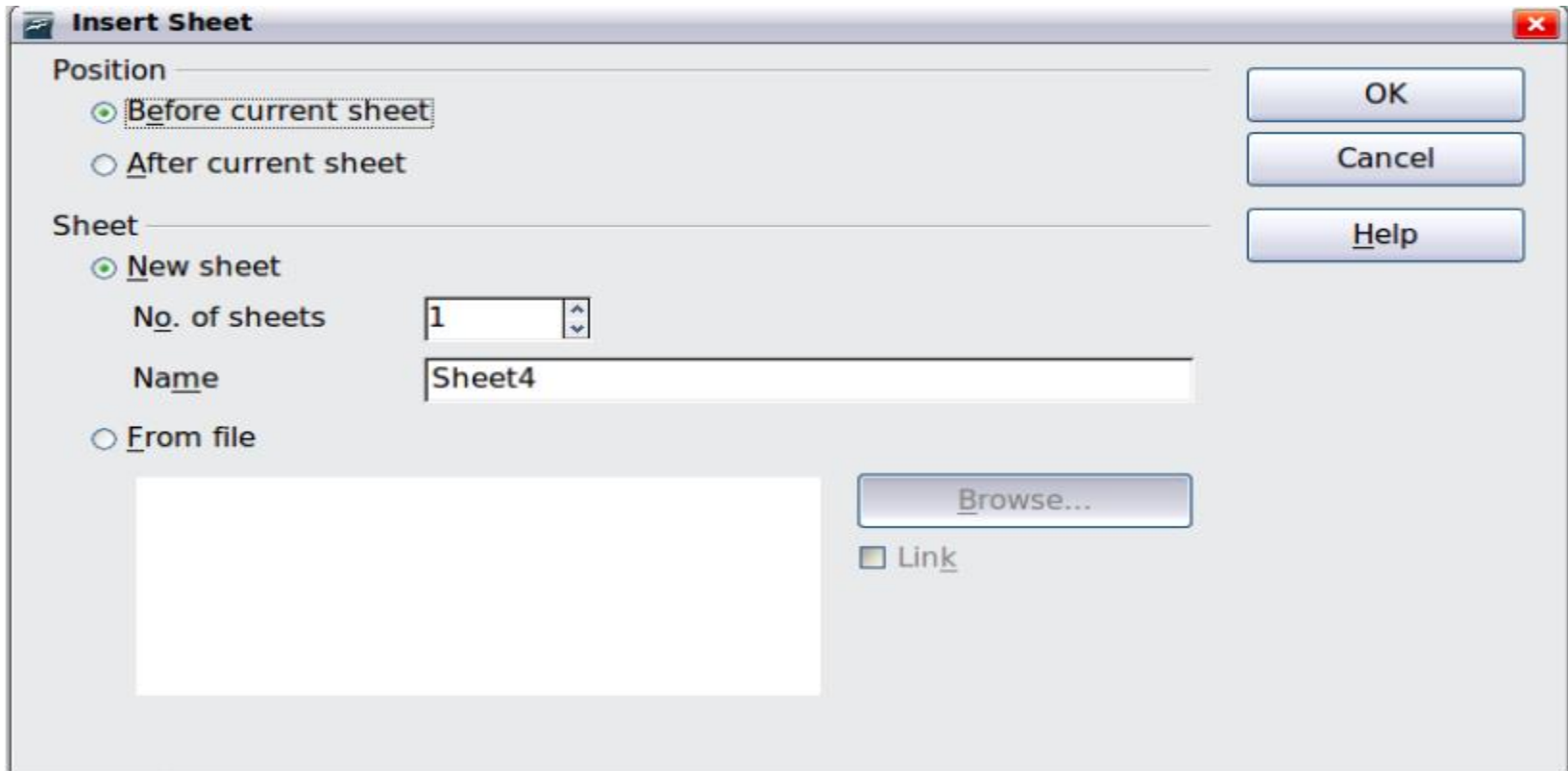

Figure 3. Insert Sheet dialog

Inserting new sheets

We need 6 sheets, one for each of the 5 accounts and one as a summary sheet so we will add 3 more. We also want to name each of these sheets for the account they represent: Summary, Checking Account, Savings Account, Credit Card 1, Credit Card 2, and Car Loan. We have two choices: insert 3 new sheets and rename all 6 sheets afterwards; or rename the existing sheets, then insert the 3 new sheets one at a time, renaming each new sheet during the insert step.

To insert sheets and rename afterwards:

1. In the Insert Sheet dialog, choose the position for the new sheets (in this example, we use **After current sheet**).
2. Choose **New sheet** and **3** as the *No. of sheets*. (Three sheets are already provided by default.) Because you are inserting more than one sheet, the *Name* box is not available.
3. Click **OK** to insert the sheets.
4. For the next steps, go to "Renaming sheets" below.

To insert sheets and name them at the same time:

1. Rename the existing sheets Summary, Checking Account, and Savings Account, as described in "Renaming sheets" below.
2. In the Insert Sheet dialog, choose the position for the first new sheet.
3. Choose **New sheet** and 1 as the *No. of sheets*. The *Name* box is now available.
4. In the **Name** box, type a name for this new sheet, for example Credit Card 1.
5. Click **OK** to insert the sheet.
6. Repeat steps 1–4 for each new sheet, giving them the names Credit Card 2 and Car Loan.

On the Insert Sheet dialog, you can also add a sheet from a different spreadsheet file (for example, another Calc or Excel spreadsheet), by choosing the **From file** option. Click **Browse** and select the file; a list of the available sheets appears in the box. Select the sheet to import. If, after you select the file, no sheets appear you probably selected an invalid file type (not a spreadsheet, for example).

Inserting sheets from a different spreadsheet

If you prefer, select the Link option to insert the external sheet as a link instead as a copy. This is one of several ways to include "live" data from another spreadsheet. The links can be updated manually to show the current contents of the external file; or, depending on the options you have selected in **Tools > Options > OpenOffice.org Calc > General > Updating, whenever the file is opened.**

Renaming Worksheets

Sheets can be renamed at any time. To give a sheet a more meaningful name:

- Enter the name in the name box when you create the sheet, or

- Double click on the sheet tab, or

- Right-click on a sheet tab, select **Rename Sheet** from the pop-up menu and replace the existing name.
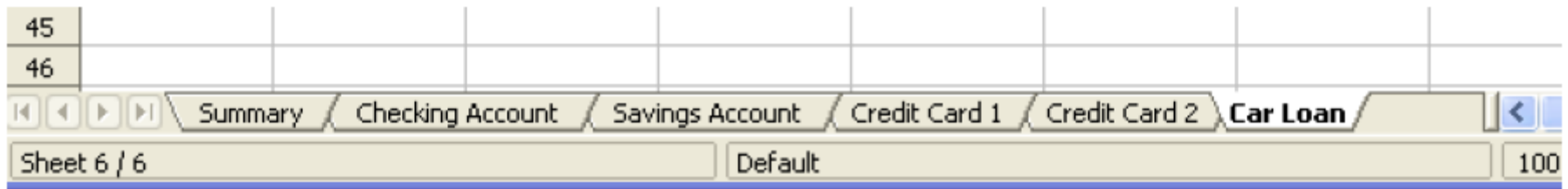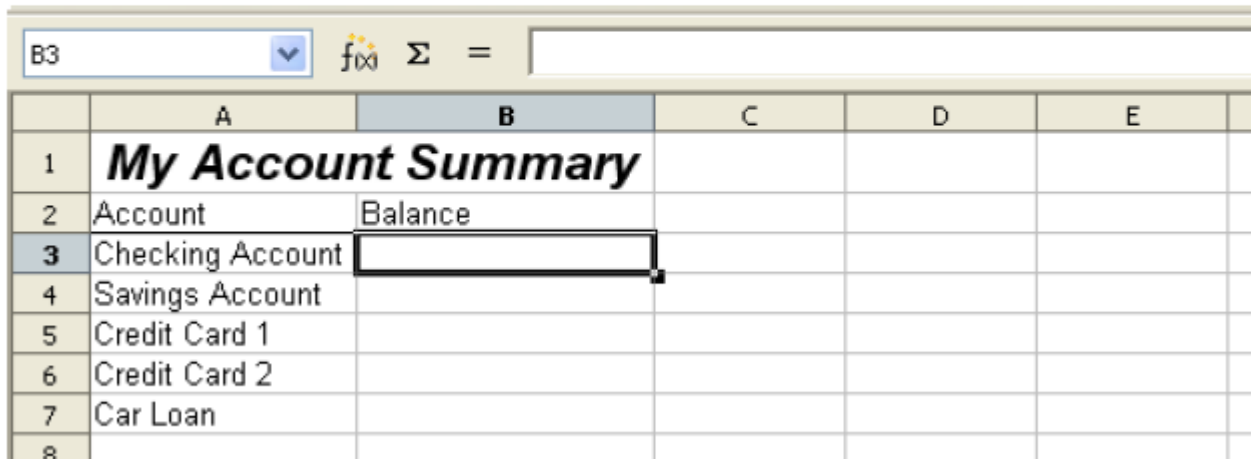

Figure 4: Six renamed sheets

Referencing other sheets

Creating The Reference With The Mouse

On the Summary sheet, set up a place for all five account balances, so we know where to put the cell reference. Figure 6 shows a summary sheet with a blank Balance column. We want to place the reference for the checking account balance in cell B3.

Figure 6: Blank summary

To make the cell reference in cell B3, select the cell and follow these steps.

1. Click on the **=** icon next to the input line. The icons change and an equals sign appears in the input line as in Figure 7.
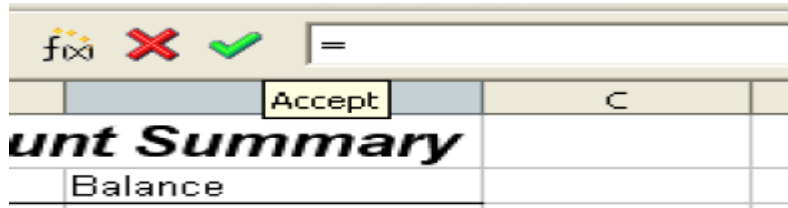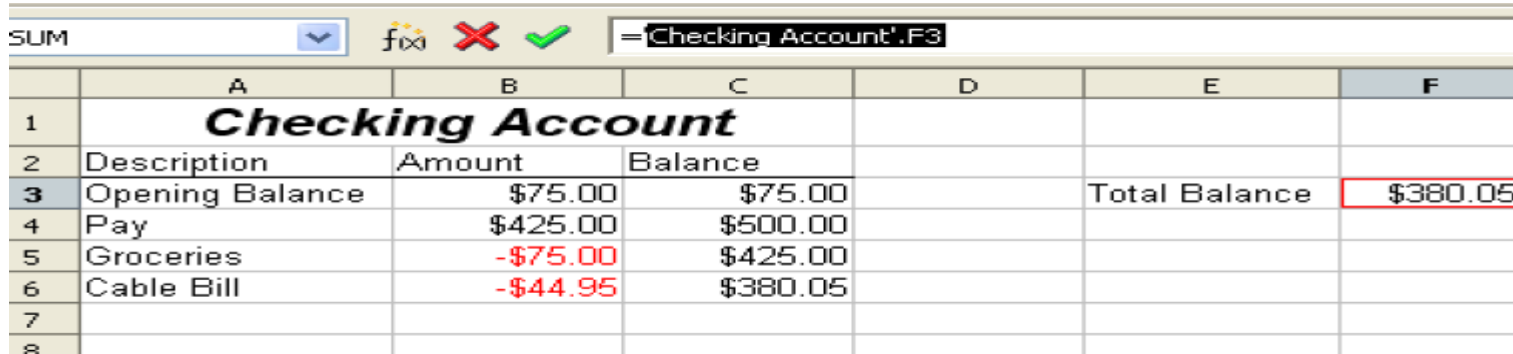

Figure 7: Equal sign in input line

2. Now, click on the sheet tab for the sheet containing the cell to be referenced. In this case, that is the Checking Account sheet as shown in Figure 8.

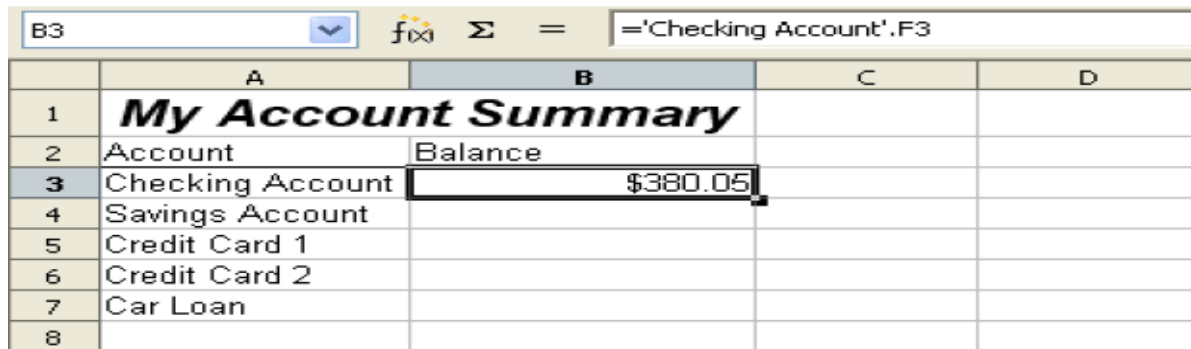*Figure 8: Click on the checking account tab*

Referencing other sheets

3. Click on cell F3 (where the balance is) in the Checking Account sheet. The phrase 'Checking Account'.F3 should appear in the input line as in Figure 9.

Figure 9: Cell reference selected

4. Click the green checkmark in the input line to finish.

5. The Summary sheet should now look like Figure 10.

Figure 10: Finished checking account reference

Creating the reference with the keyboard

Typing the reference is simple once you know the format the reference takes. The reference has three parts to it:

- Path and file name
- Sheet name
- Cell

Looking at Error: Reference source not found you can see the general format for the reference is ='file:///Path & File Name'#$SheetName.CellName.

CREATING REFERENCE TO OTHER SHEETS BY KEYBOARD :-

- Type **=(Sheet Name).(Cell Reference)**
- **e.g. =Sheet3.B2**
- Click on Tick Icon
- Press **Enter.**

Relative and absolute hyperlinks

Hyperlinks can be stored within your file as either relative or absolute.

A relative hyperlink says, "Here is how to get there starting from where you are now" (meaning from the folder in which your current document is saved) while an absolute hyperlink says, "Here is how to get there no matter where you start from".

An absolute link will stop working only if the target is moved. A relative link will stop working only if the start and target locations change relative to each other. For instance, if you have two spreadsheets in the same folder linked to each other and you move the entire folder to a new location, a relative hyperlink will not break.

To change the way that OOo stores the hyperlinks in your file, select **Tools > Options > Load/Save > General** and choose if you want URLs saved relatively when referencing the *File System*, or the *Internet*, or both.

Calc will always display an absolute hyperlink. Don't be alarmed when it does this even when you have saved a relative hyperlink—this 'absolute' target address will be updated if you move the file.

Creating hyperlinks

You can also insert and modify links using the Hyperlink dialog. To display the dialog, click the **Hyperlink** icon 🦦 on the Standard toolbar or choose **Insert > Hyperlink** from the menu bar. To turn existing text into a link, highlight it before opening the dialog.
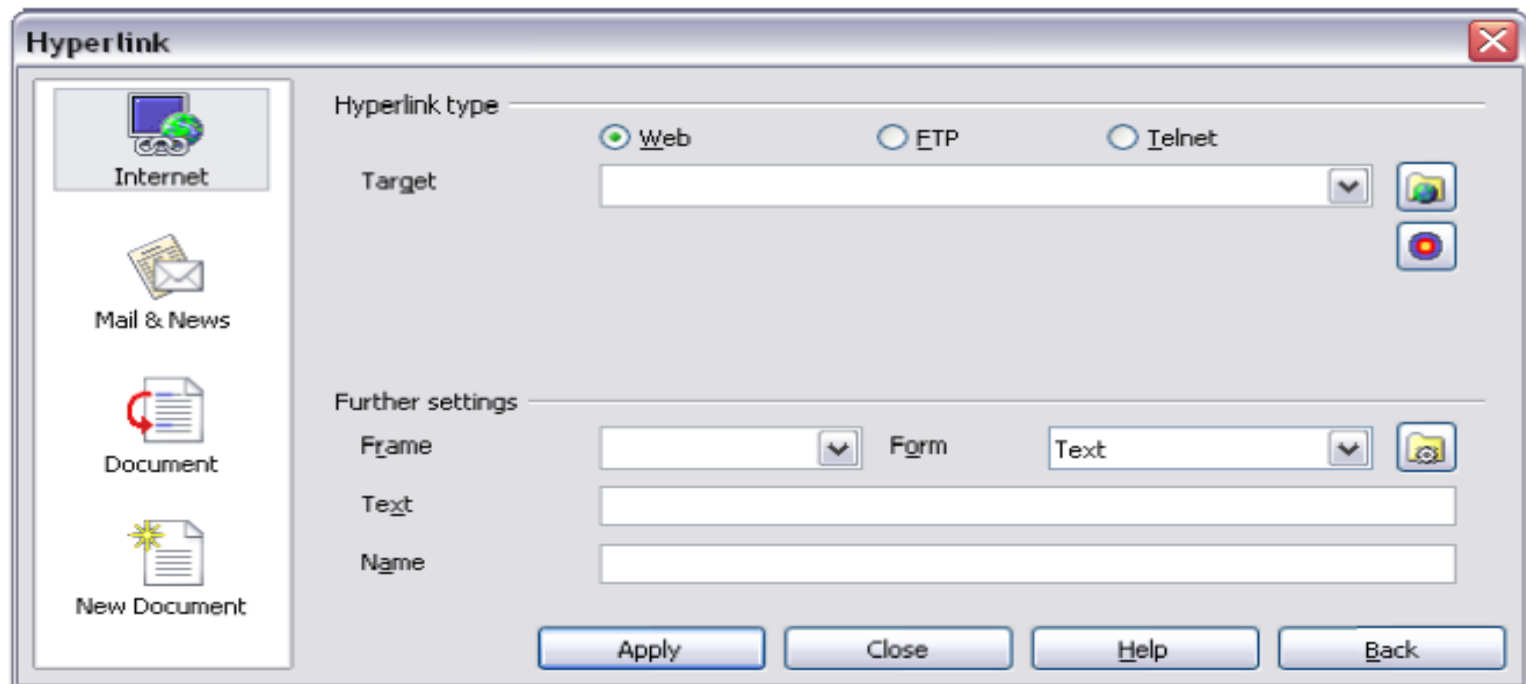

Figure 14. Hyperlink dialog showing details for Internet links

Creating hyperlinks

On the left side, select one of the four categories of hyperlinks:

• **Internet**: the hyperlink points to a web address, normally starting with http://

• **Mail & News:** the hyperlink opens an email message that the pre-addressed to a particular recipient

• **Document:** the hyperlink points to a place in either the current document or another existing document

• **New document:** the hyperlink creates a new document.

The top right part of the dialog changes according to the choice made for the hyperlink category from the left panel. A full description of all the choices, and their interactions, is beyond the scope of this chapter. Here is a summary of the most common choices used in presentations.

For an Internet hyperlink, choose the type of hyperlink (choose between Web, FTP or Telnet), and enter the required web address (URL).

For a Mail and News hyperlink, specify whether it is a mail or news link, the receiver address and for email, also the subject.

For a Document hyperlink, specify the document path (the Open File button opens a file browser); leave this blank if you want to link to a target in the same spreadsheet. Optionally specify the target in the document (for example a specific sheet). Click on the Target in document icon to open the Navigator where you can select the target, or if you know the name of the target, you can type it into the box.

For a New Document hyperlink, specify whether to edit the newly created document immediately (Edit now) or just create it (Edit later), and enter the file name and the type of document to create (text, spreadsheet, etc.). The Select path button opens a directory picker dialog.

The *Further settings* section in the bottom right of the dialog is common to all the hyperlink categories, although some choices are more relevant to some types of links.

• Set the value of **Frame** to determine how the hyperlink will open. This applies to documents that open in a Web browser.

• **Form** specifies if the link is to be presented as text or as a button. Figure 15 shows a link formatted as a button.
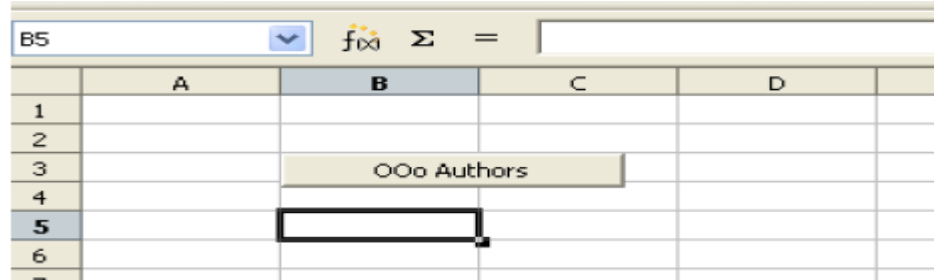
Creating hyperlinks

Figure 15: OOo Authors hyperlink as button

- **Text** specifies the text that will be visible to the user. If you do not enter anything here, Calc will use the full URL or path as the link text. Note that if the link is relative and you move the file, this text will not change, though the target will.
- **Name** is applicable to HTML documents. It specifies text that will be added as a NAME attribute in the HTML code behind the hyperlink.
- **Events** button: this button will be activated to allow Calc to react to events for which the user has written some code (macro). This function is not covered in this chapter.

Editing hyperlinks

To edit an existing link, place the cursor anywhere in the link and click the Hyperlink icon on the Standard toolbar or select **Insert > Hyperlink** from the menu bar. The Hyperlink dialog (Figure 14) opens. If the Hyperlink is in button form, the spreadsheet must have Design Mode on in order to edit the Hyperlink. Make your changes and click **Apply**. If you need to edit several hyperlinks, you can leave the Hyperlink dialog open until you have edited all of them. Be sure to click **Apply** after each one. When you are finished, click **Close**.

Creating hyperlinks

Removing hyperlinks

You can remove the clickable link from hyperlink text—leaving just the text—by right-clicking on the link and selecting **Default Formatting**. This option is also available from the **Format** menu. You may then need to re-apply some formatting in order to match the rest of your document. To erase the link text or button from the document completely, select it and press the backspace key.

Linking to external data

You can do this in two ways: using the External Data dialog or using the Navigator.

Using the External Data dialog

1) Open the Calc document where the external data is to be inserted. This is the target document.

2) Select the cell where the upper left-hand cell of the external data is to be inserted.

3) Choose **Insert > Link to External Data**.

4) On the External Data dialog (Figure 16), type the URL of the source document or click the [...] button to open a file selection dialog. Press *Enter* to get Calc to load the list of available tables.

5) In the *Available tables/range* list, select the named ranges or tables you want to insert. You can also specify that the ranges or tables are updated every n seconds.

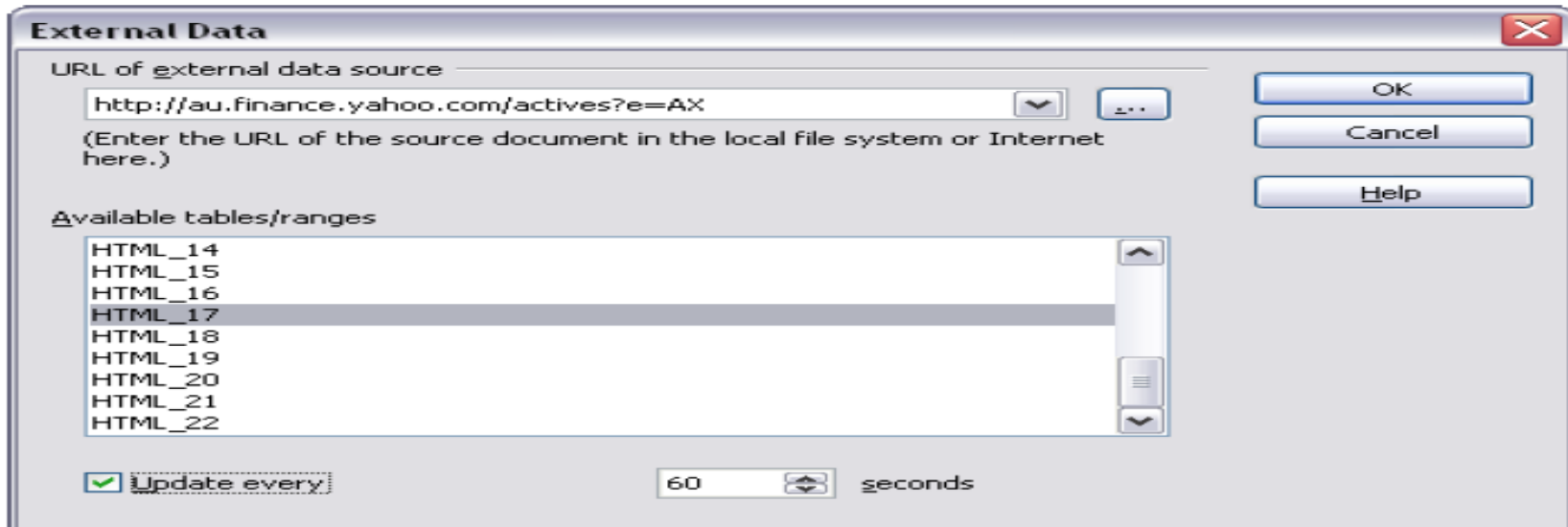6) Click **OK** to close the dialog and insert the linked data.

Figure 16: Selecting a table or range in a source document from the Web

Linking to external data

Linking To Registered Data Sources

You can access a variety of databases and other data sources and link them into Calc worksheets. First you need to register the data source with OpenOffice.org. (To register means to tell OOo what type of data source it is and where the file is located.) The way to do this depends on whether or not the data source is a database in *.odb format.

To register a data source that is in *.odb format:

1. Choose Tools -> Options -> OpenOffice.org Base -> Databases.

2. Click the New button (below the list of registered databases) to open the Create Database Link dialog.
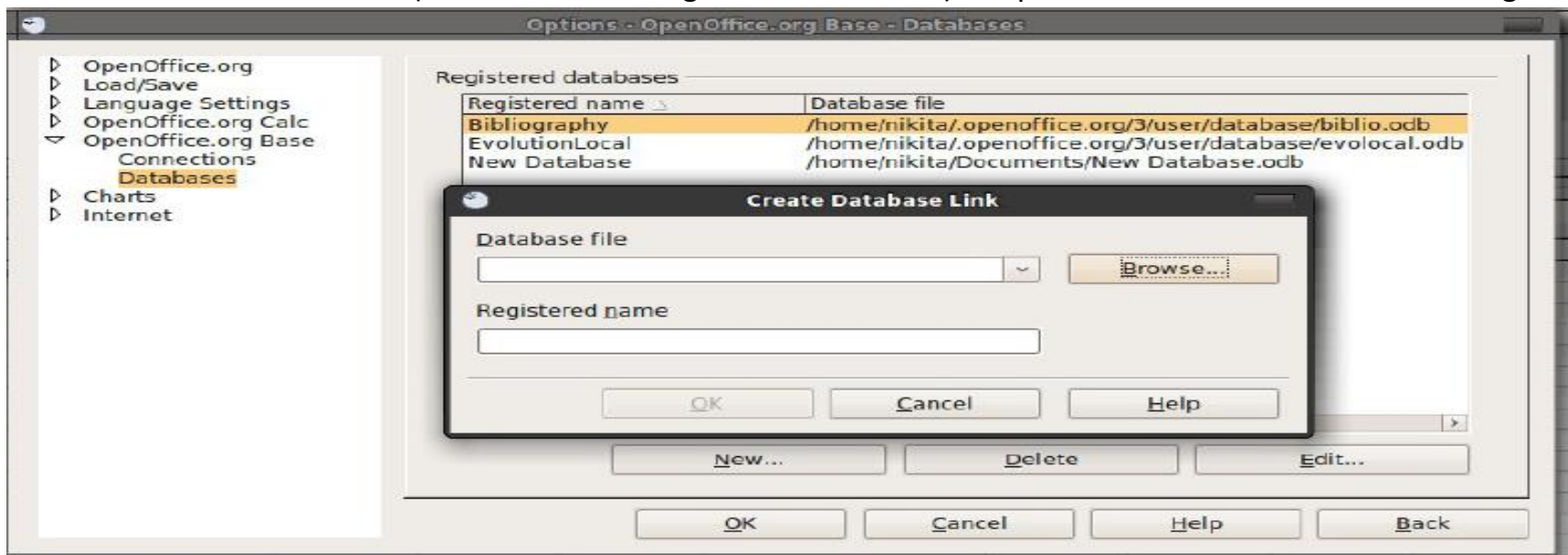

Figure 22: Registering databases

3) Enter the location of the database file, or click **Browse** to open a file browser and select the database file.

4) Type a name to use as the registered name for the database and click **OK**. The database is added to the list of registered databases. The **OK** button is enabled only when both fields are filled in.

•**PRACTICAL ACTIVITY**

1. Create a set of worksheets for storing records of marks of differnet classes and compare all these on a separate worksheet.

QUESTIONS:

1. How can we rename a worksheet?
2. What are the two ways of referencing cells in other worksheets?
3. Differentiate between relative and absolute hyperlinks.
4. List the procedure involved in Linking HTML Tables to Calc Worksheet
5. Fill up the blanks

    a) At the bottom of each worksheet window is a small tab that indicates the _____ of the worksheets in the workbook.

    b) A _____ refers to a cell or a range of cells on a worksheet and can be used to find the values or data that you want formula to calculate.

2. A business owner wants to decide if he should try to increase the sales a product or price of an existing product in order to increase the profit by 10%.

Current Sales	82
Cost per Unit	75
Profit per unit	12

The owner believes that he can either increase sales by 5 units without incurring additional costs while the price can be increased by Rs 8 without affecting the sales.

3. The current profit situation of a business owner is as follows.

Current Sales	82
Cost per Unit	75
Profit per unit	12

Using the scenario manager, find the effect of in the new profit in case of the following situations.

a) Sales = 70 and cost = 80
b) Sales = 90 and cost = 72
c) Sales = 85 and cost = 80
d) Sales = 65 and cost = 80

THANKING YOU
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