UNIT 12 ADVANCED FEATURES OF MICROSOFT EXCEL

Structure

12. INTRODUCTION

In this unit we will introduce several advanced features of Microsoft Excel. These are related to using formulas, functions and macros, creating headers and footers in the worksheet, protecting data within the worksheet, inserting picture into worksheet etc. One feature which we use quite often in MS Excel is MACRO. Macros automate frequently performed tasks by changing them into a set of keystrokes that are stored or recorded and are assigned a control key. Whenever the specified control key is used, the entire operation is performed automatically. You can have macros for formatting worksheet, report generation and so on.

12.2 OBJECTIVES

After going through this unit, you will be able to:

- use formula, function within the worksheet,
- edit formulas,
- define macros,
- print worksheet data,
- create headers and footers,
- protect data within workbooks, and
- Share data with other applications.

12.3 FORMULAS

In this section, we will study about how to enter formulas, edit formulas, Copy/ Paste Formulas and converting formulas to values. So let us get started.

12.3. Entering Formulas

A formula is an expression which calculates the value of a cell. Various numeric calculations can be accomplished conveniently by the use of formulas.

Formulas can be created in following ways:

For entering a formula into a cell, the steps are:

- Select the cell in which you want to enter the formula.
- Enter the formula you want preceded by an equal to (=) sign.

When you press the Enter key, the resulting value would be displayed in the specified cell.

For example, cell A3 below contains a formula which adds the value of cell A2 to the value of cell A1.

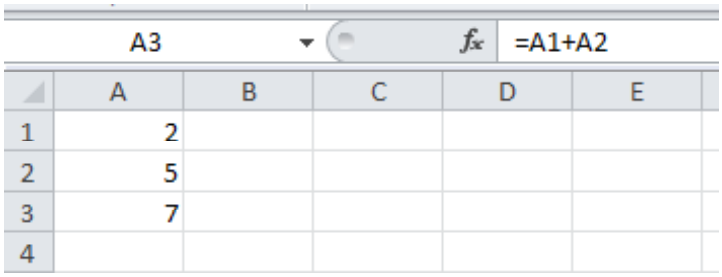


Fig. 12.1: Entering Formulas

12.3.2 Edit a Formula

When you select a cell, Excel shows the value or formula of the cell in the formula bar.

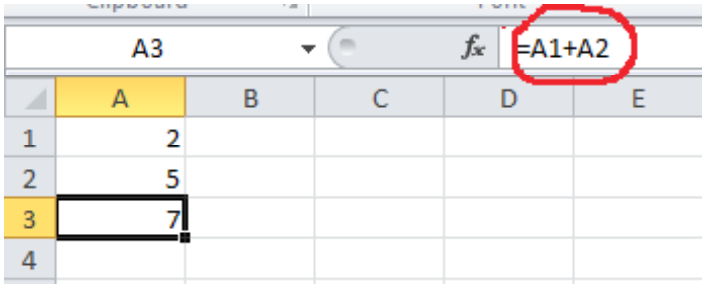


Fig. 12.2: Edit Formula (A)

- To edit a formula, click in the formula bar and change the formula.

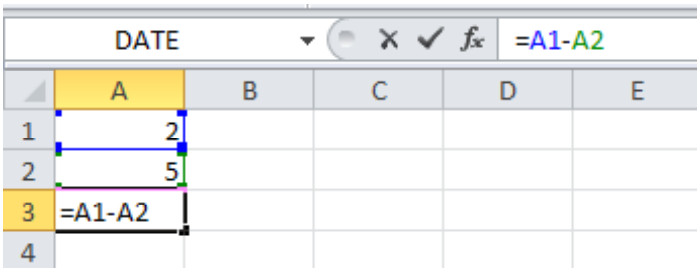


Fig. 12.3: Edit Formula (B)

- Press Enter key and see the result.

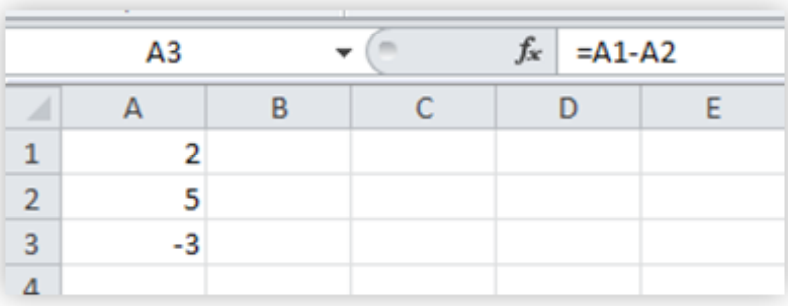


Fig. 12.4: Edit Formula (C)

Operator Precedence

Excel uses a default order in which calculations occur. If a part of the formula is in parentheses, that part will be calculated first. It then performs multiplication or division operations. Once this is complete, Excel will add and subtract in the remainder of your formula. See the example below.

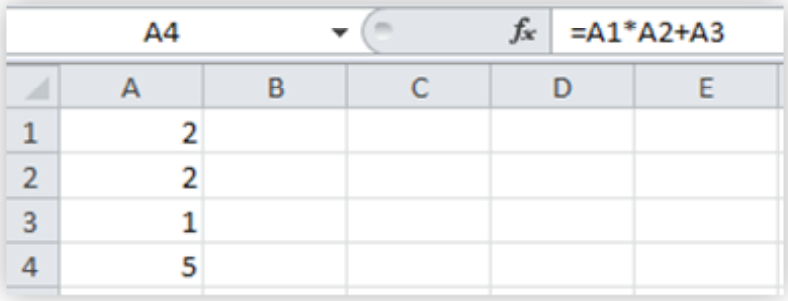


Fig. 12.5: Operator Precedence (A)

Excel performs multiplication (A1 * A2) first and then Excel adds the value of cell A3 to this result.

Another example,

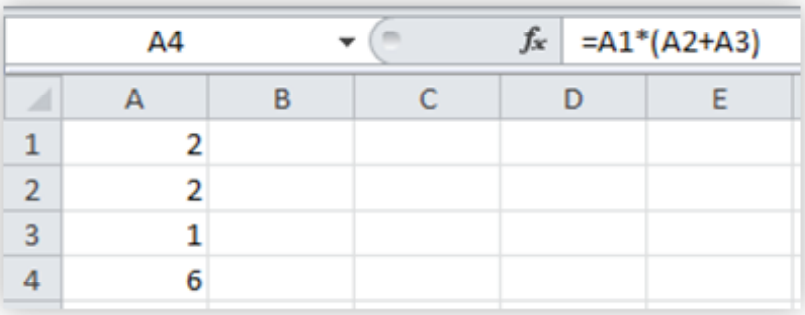


Fig. 12.6: Operator Precedence (B)

First, Excel calculates the part in parentheses (A2+A3) and then excel multiplies this result by the value of cell A1.

12.3.3 Copy/Paste a Formula

When you copy a formula, Excel automatically adjusts the cell references for each new cell the formula is copied to. To understand this, execute the following steps.

- Enter the formula shown below into cell A4.

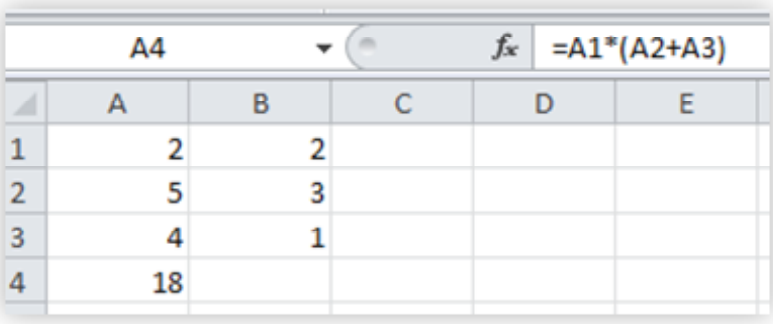


Fig. 12.7:Copy/Paste a Formula (A)

- Select cell A4, right click, and then click Copy.
- Select cell B4, right click, and then click Paste under 'Paste Options:'

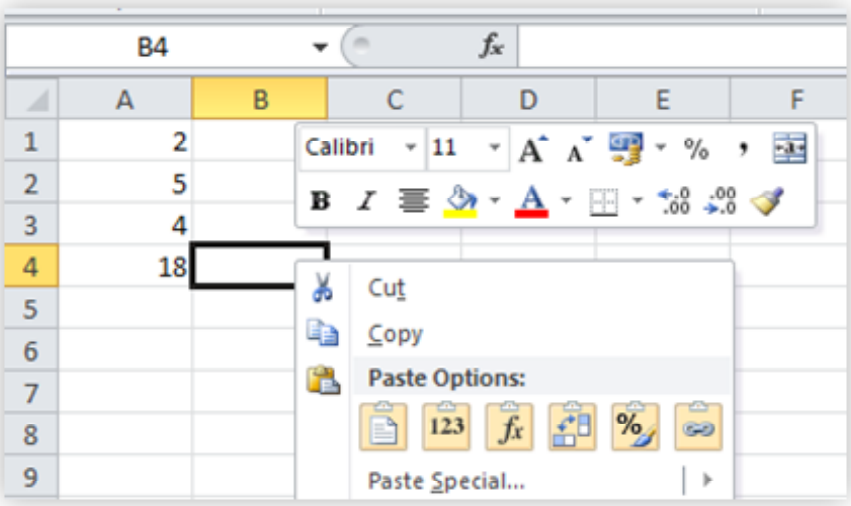


Fig. 12.8: Copy/Paste a Formula (B)

- Now, you can see the result. The formula in cell B4 references the values in column B.

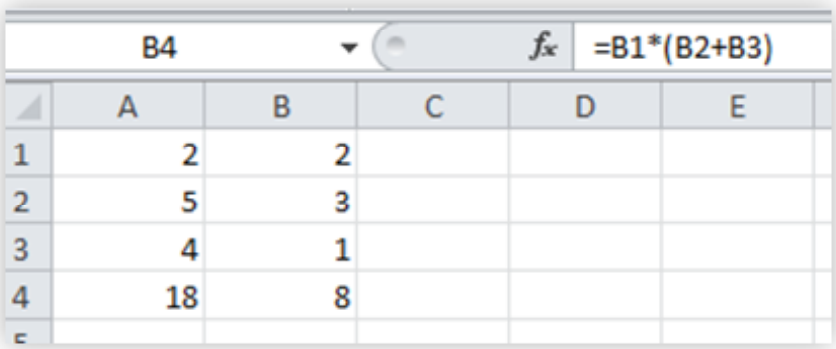


Fig. 12.9: Copy/Paste a Formula (C)

12.3.4 Converting Formulas to Values

When you create a formula, you would only want to view its result and not the formula, which is normally displayed on the formula bar. In such a situation, you can convert the formula to its actual value.

To convert a single formula to a value, the steps are:

- Select the cell that contains the formula.
- Double-click on the cell or press the F2 function key.
- Press the F9 function key.

Excel now shows only the result and not the formula.

12.4 FUNCTION

Functions are predefined formulas and are already available in Excel. Excel functions help in performing simple to complex arithmetic calculations.

There are number of built-in functions or predefined formulas that enable you to create formulas for a wide range of application including business, scientific and engineering applications.

In this section, you will learn basics of inserting common functions into your worksheet by using AutoSum and Insert Functions commands. You will also become familiar with how to search and find various functions, including exploring Excel's Functions Library.

12.4.1 Entering Function

To enter a function in the active cell, type the equal to (=) sign, followed by an open parentheses. You can then specify the cell range you want the function to use and complete the function with closed parentheses.

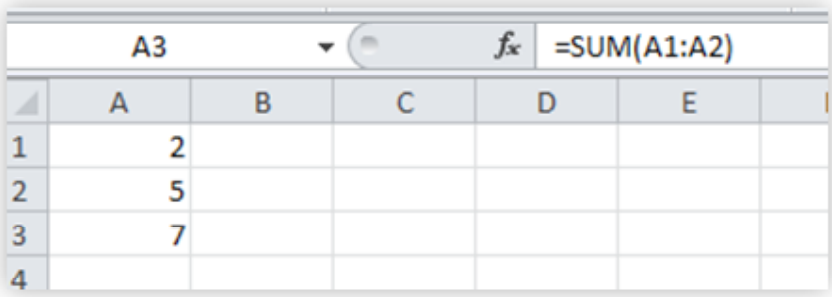


Fig. 12.10: Entering Function

For example, cell A3 below contains the SUM function which calculates the sum of the range A1:A2.

12.4.2 AutoSum Function

You can use the AutoSum function for quick calculations that involves addition of numbers. The AutoSum functions allows you to automatically return the results for a range of cells for common functions like SUM, AVERAGE, COUNT NUMBERS, MAX, and MIN.This button is located on editing group of Home tab or under the Formulas tab.

To use AutoSum feature of Excel, follow these steps:

- Select a cell adjacent to the range you want to sum.
- Click on the **AutoSum** button and select Sum from drop down menu.

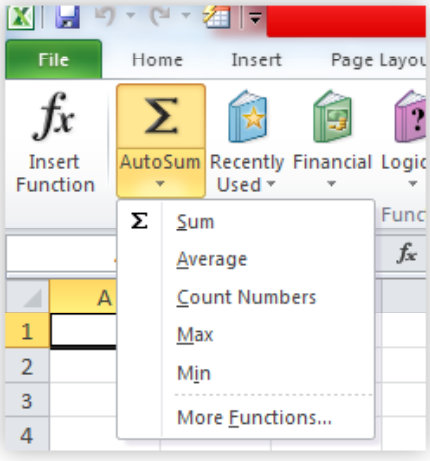


Fig. 12.11: AutoSum Function

Excel automatically inserts the SUM function and selects the cells in the column above the selected cell.

12.4.3 Insert Functions

Every function has a structure - for example, in SUM (A1:A3) function the name of this function is SUM. The part between the brackets (called arguments) means we give the range A1:A3 as input. This function adds the values in cells A1, A2 and A3. It is not easy to remember which function and which arguments to use for each task. For this purpose, Excel provides a feature named Insert Function which helps you. This feature is located under the Formulas tab.

To insert a function, execute the following steps.

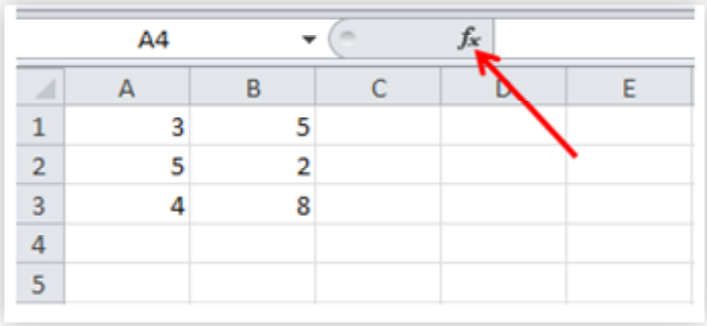


Fig. 12.12: Insert Functions

- Select a cell.
- Click the Insert Function button.
- The 'Insert Function' dialog box appears.
- Search for a function or select a function from a category. For example, choose AVERAGE from the Statistical category.

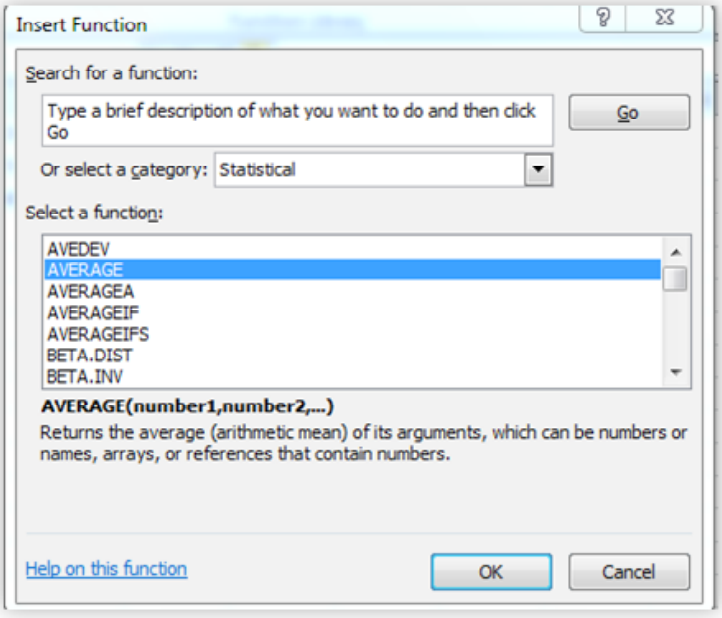


Fig. 12.13: Insert Functions dialog box

- Click OK.
- The 'Function Arguments' dialog box appears.
- If you look in the Number1 box, you will see Excel has guessed which cells we want to use for our Average function - A1:A3. It even provides the answer to the Function - value 4.
- Click OK to insert the function.

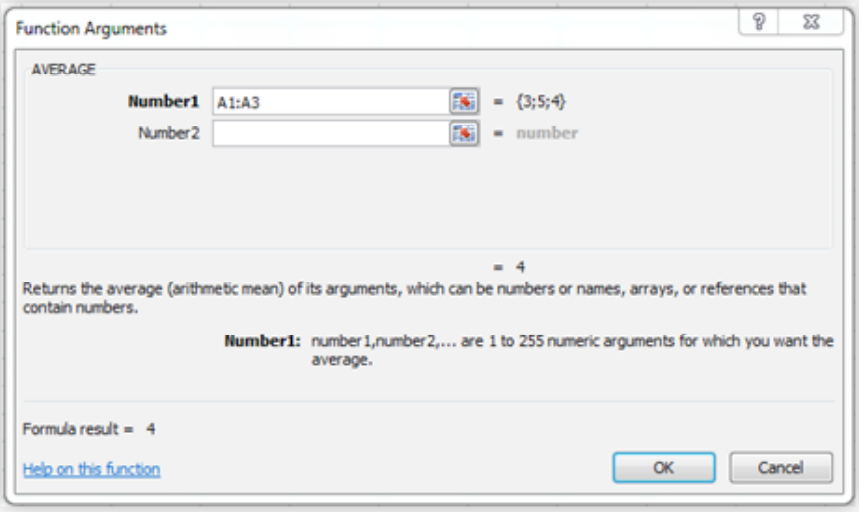
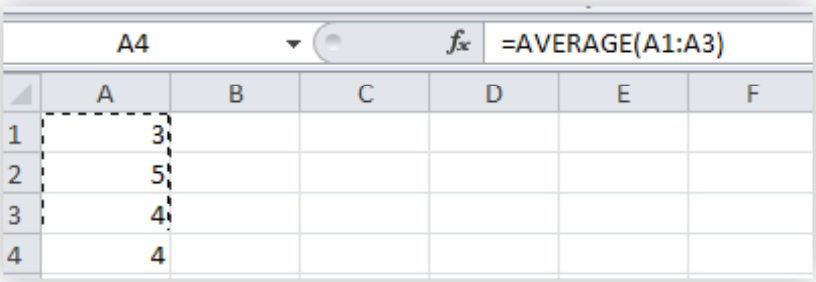


Fig. 12.14: Function Arguments dialog box

- See the result



12.4.4 Date and Time Functions

For entering a date in Excel, use the "/" or "-" characters and for time, use the ":" (colon). You can also enter a date and a time in one cell.

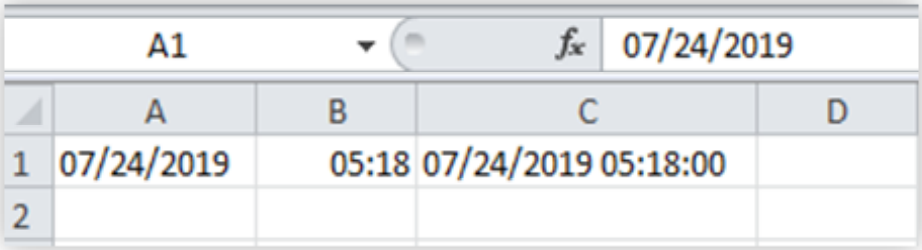


Fig. 12.16: Entering Date and Time Function

Note: Dates are written in US Format like Month first, Day second. This type of format depends on your windows regional settings

Excel has several date functions. Some of these are YEAR, DATE, NOW, TODAY functions.

YEAR Function

To get the year of a date, use the YEAR function.

Syntax: =YEAR (serial_number)

Consider the Following example,

- Type date in A1 cell.
- Move pointer to A2 cell
- Click on Formulas tab
- Select year function under Date & Time Function.
- The 'Function Arguments' dialog box appears as shown in Fig. 12.17.

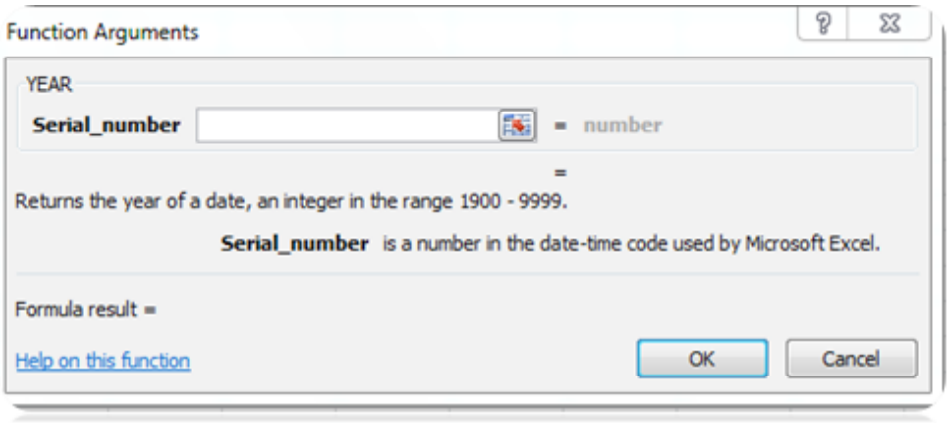


Fig. 12.17: Function Arguments

- Select A1 Cell and press OK button.
- Result is displayed in A2 cell.

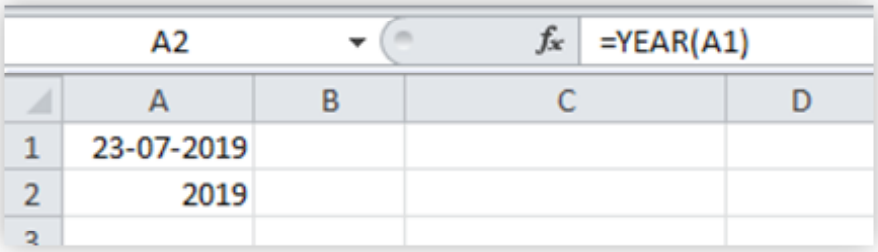


Fig. 12.18: Year Function

DATE Function

To add a number of days to a date, use the following simple formula.

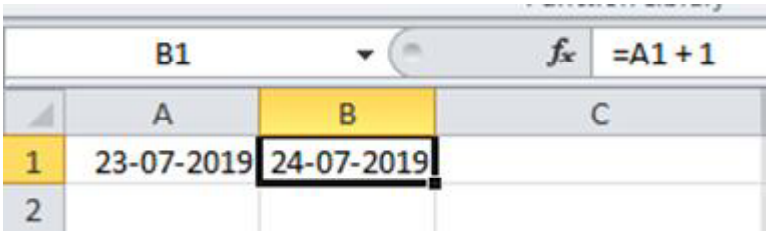


Fig. 12.19: DATE Function

Current Date

To get the current date, use the TODAY function from Date & Time function under Formulas tab.

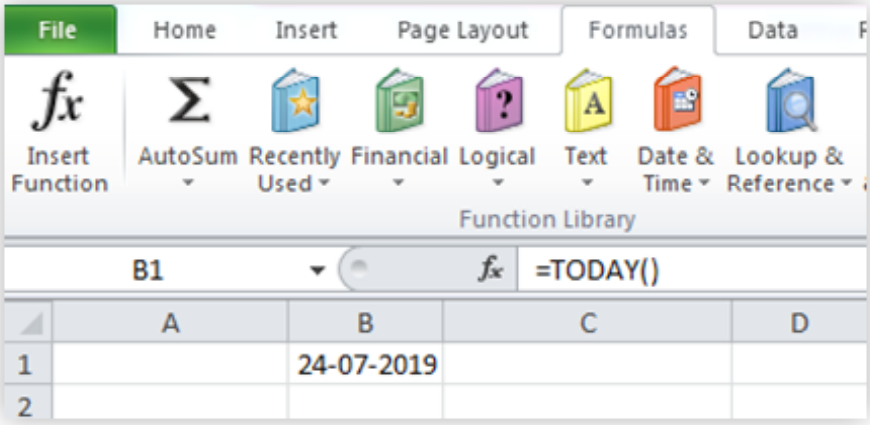


Fig. 12.20: Current Date

Current Date & Time

To get the current date and time, use the NOW function from Date & Time function under Formulas tab.

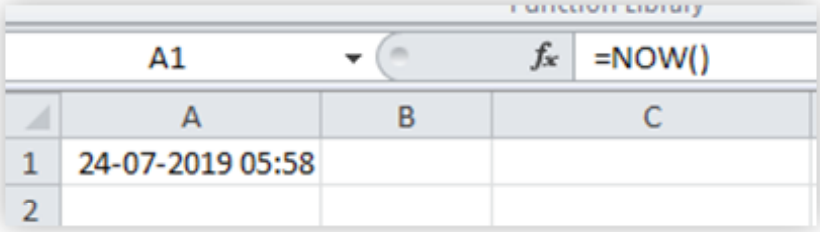


Fig. 12.21: Current Date & Time

In similar manner, you can use many date & Time functions.

12.5 MACRO

Macros automate frequently performed tasks by changing them into a set of key strokes that are stored or recorded and are assigned a control key. Whenever the specified control key is used, the entire operation is performed automatically. You can have macros for formatting worksheets, report generations and so on. This feature is time saving, flexible and very powerful.

12.5.1 Creating and Storing Macros

For creating Macro, do the following:

- Choose View Tab » Macro drop down.
- Click on Record Macro as below.

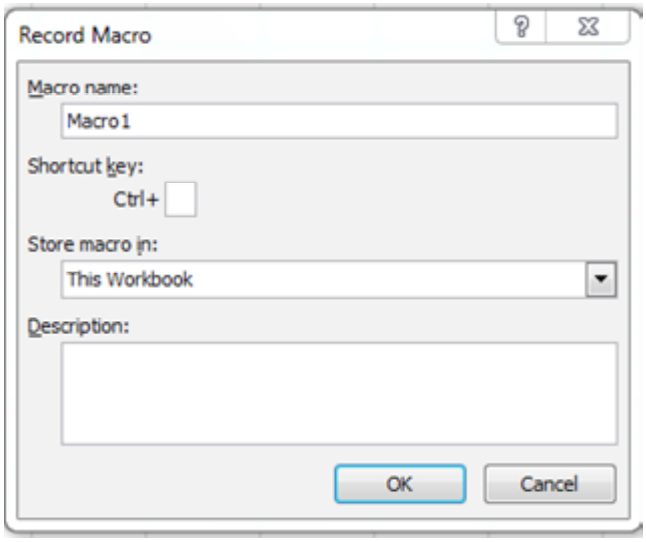


Fig. 12.22: Creating Macros (A)

- You can name your macro in the Record macro dialog box. The name that you specify should not contain spaces or other punctuation marks, but it can contain underscores.
- You can assign a shortcut key for the macro that you want to record and press OK button.
- Now Macro recording will start.
- Do the steps of action, which you want to perform repeatedly. Macro will record those steps.
- You can stop the macro recording once done with all steps.

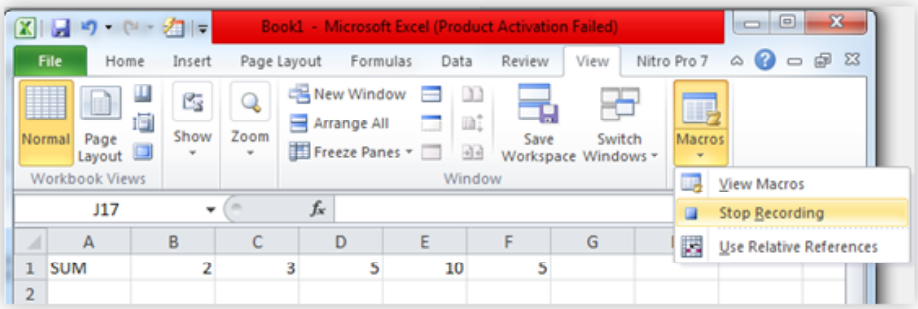


Fig. 12.23: Creating acros (B)

12.5.2 Running a Macro

You can select the Run option from the dialog box or use the shortcut key that you have assigned to your macro. The entire operation would be created again for you.

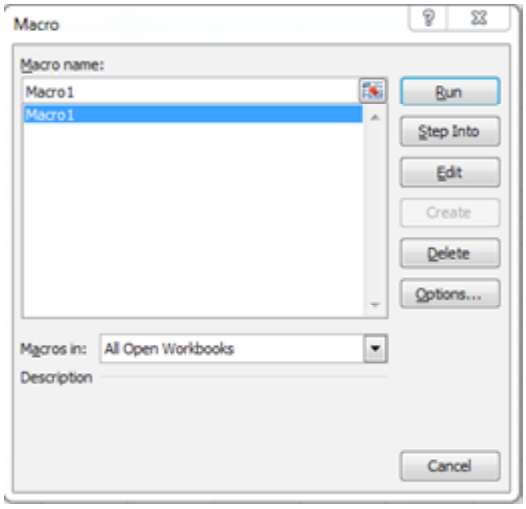


Fig. 12.24: Running a Macro

12.6 PRINTING WORKSHEET DATA

Excel offers you various printing options for your worksheets. It enables you to have a preview of worksheet data using Print Preview option. You can set margins, fonts, headers and footers to enhance your worksheets.

Quick Print

If you want to print a copy of a worksheet with no layout adjustment, use the Quick Print option. There are two ways in which we can use this option.

- Choose **File » Print** (which displays the Print pane), and then click the Print button.
- Press Ctrl+P and then click the Print button (or press Enter).

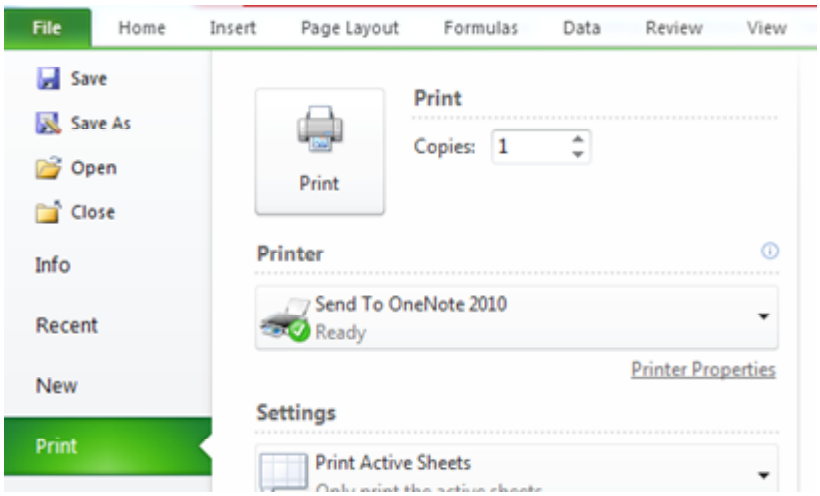


Fig. 12.25: Quick Print

12.6.1 Printing an Area

By default, Excel prints the current worksheet when the Print command is selected from the File menu. However, if you require a particular area of the worksheet to be printed, then you are offered this facility also.

To do so, you can follow these steps:

- Select the range that you want to print.
- Select the Print option from the File menu.
- Select name of Printer
- Next, under Settings, select Print Selection.
- click the big Print button

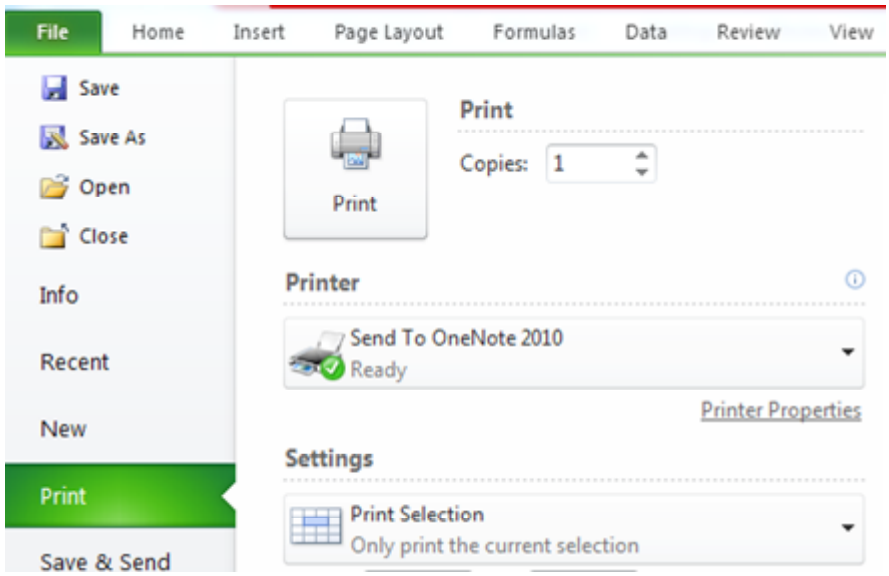


Fig. 12.26: Print Selection

12.6.2 Printing Worksheet/ Workbook

Sometimes you may want to print the entire active Worksheet/ Workbook rather than the part of worksheet.

For this, do the following steps:

- Choose File » Print and select printer name
- under Settings section, select Print Active Sheets/ Entire Workbook
- Click the big Print button for printing active worksheet/ workbook.

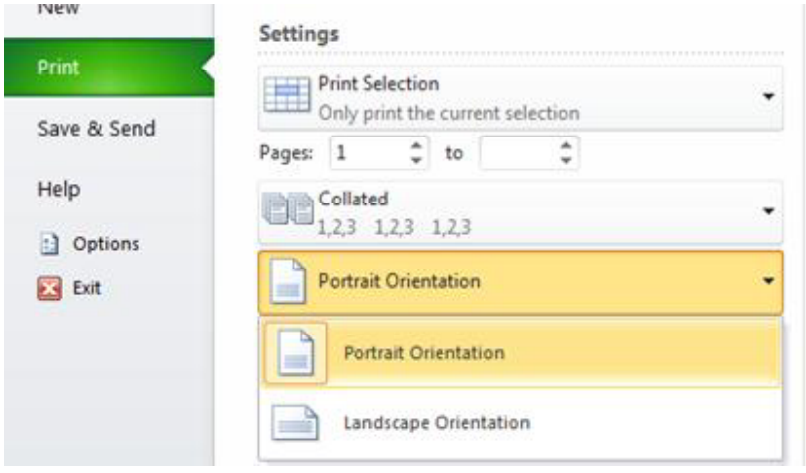


Fig. 12.27 : Orientation

12.6.3 Orientation

For printing your excel data, you can switch between Portrait Orientation (more rows but fewer columns) and Landscape Orientation (more columns but fewer rows).

12.6.4 Page Margins

To adjust the page margins, do the following steps.

- Select one of the predefined margins (Normal, Wide or Narrow) or Custom Margins from the Margins drop-down list.
- Or click the 'Page Setup' option at the bottom right of the window. Now you can manually change the page margins.

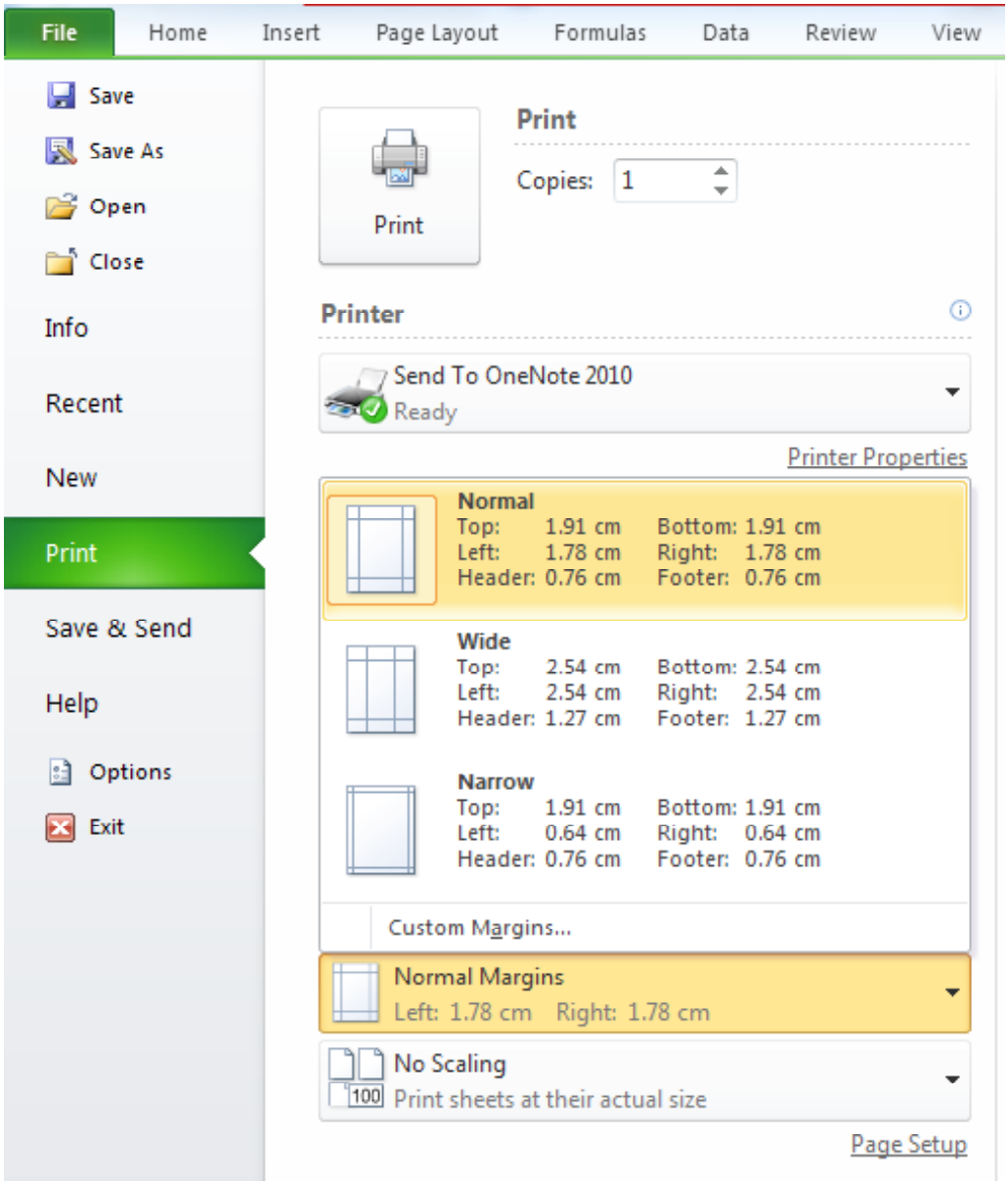


Fig. 12.28: Page Margin options

12.6.5 Scaling

If you want to fit more data on one page, you can fit the sheet on one page.

To achieve this, do the following steps.

- Select 'Fit Sheet on One Page' from the Scaling drop-down list.

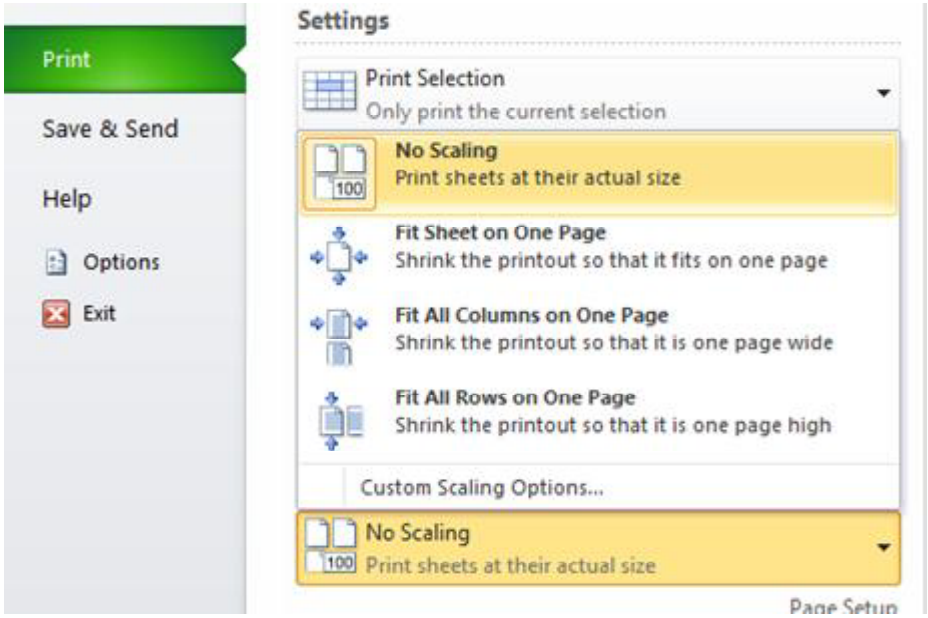


Fig. 12.29: Scaling option

You can also find some more options such as 'Fit All Columns on One Page' or 'Fit All Rows in One Page' under the scaling drop down menu.

12.7 CREATING HEADERS AND FOOTERS

A header is the information that appears at the top of each printed page and footer is the information that appears at the bottom of each printed page. By default, new workbooks do not have headers or footers. Headers are commonly used for report titles, chapter names, company names, and so on. Footers are mainly used for specifying page numbers, or total Page Layout number of pages.

You can format headers and footers by selecting the Header/Footer tab available on the Page Setup dialog box which comes under the Page Layout tab ribbon. There are a variety of pre-defined headers and footers from which you can select or define your own headers and footers.

For creating headers and footers, execute the following steps:

- Click on Page Layout tab.
- Choose Page Setup dialog box » Header/Footer tab.
- Choose pre-defined header/footer or custom header/footer.

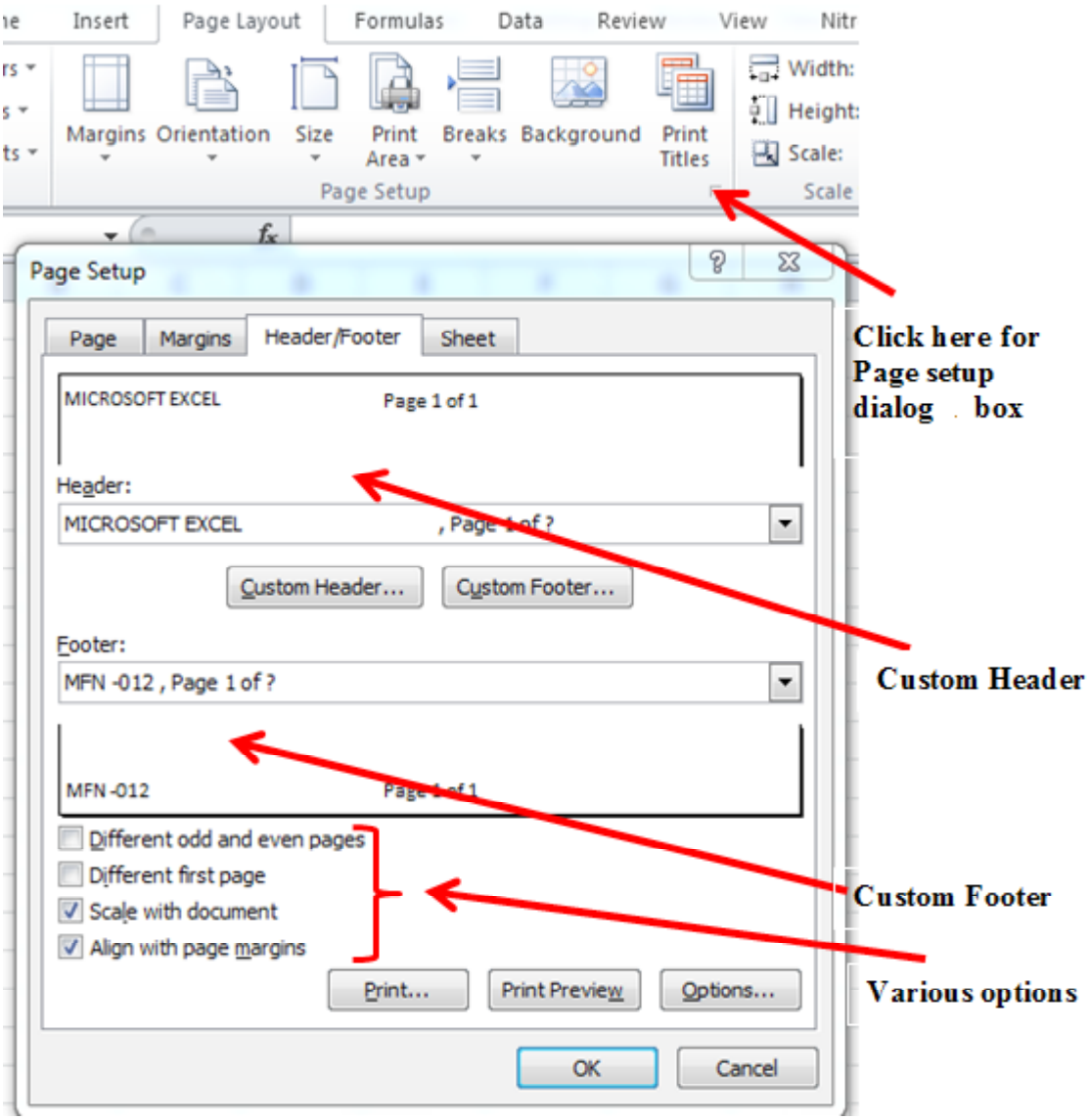


Fig. 12.30: Page Setup dialog box

Following number of different options for Header and Footer are also available on Page Setup dialog box:

- **Different Odd & Even Pages** –It is used to specify a different header or footer for odd and even pages.
- **Different First Page** –It is used to specify a different header or footer for the first printed page.
- **Scale with Document** – this option is enabled, by default. If checked, the font size in the header and footer will be sized. Accordingly if the document is scaled when printed.
- **Align with Page Margins** – this option is enabled, by default. If checked, the left header and footer will be aligned with the left margin, and the right header and footer will be aligned with the right margin.

12.8 PROTECTING DATA WITHIN WORKBOOKS

Protection against loss or corruption of worksheet data has always been a matter of great concern. This important issue has been dealt by Excel. There are several levels of protection that can be applied to a workbook.

12.8.1 Password to Open a File

The top-most level of protection is set at the file level. To implement security at the file level, the steps are:

- Open a workbook.
- On the File tab, click Save As.

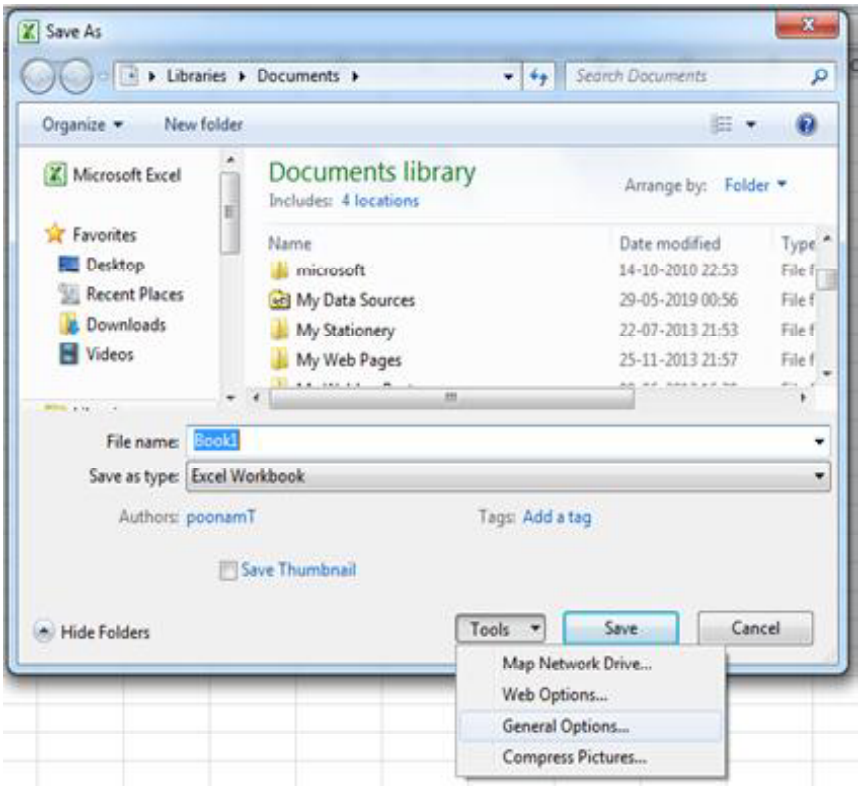


Fig. 12.31: Save as with Tools option

- Click on the Tools button and click General Options.
- In the Password to open box, enter a password and click OK

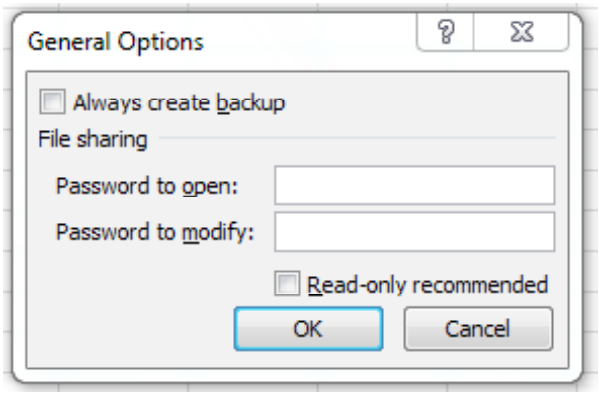


Fig. 12.32: General Options dialog box

- Reenter the password and click OK.
- Enter a file name and click Save.

Note: *Be careful while using this feature as it encrypts your Excel file. If you lose or forget the password, it cannot be recovered.*

12.8.2 Password to Modify a File

The password that is set is to open or access the workbook. This password is used on workbooks that contain vital information that needs to be kept confidential and protected from getting corrupted. This option only allows a user to open the file. To save modifications to a file, you can set a password that a user can enter to save the changes.

Entering a password in the password to modify text box in the Save Options dialog box permits a user to open a workbook in the read-only mode. The user can view and manipulate data but cannot save the changes made to the workbook without the knowledge of the password.

Setting the Read-Only Option

The Save Options dialog box contains a read-only recommendation option which you can activate so as to make your workbooks read-only.

12.8.3 Protect an Excel file

To prevent others from accessing data in your Excel files, protect your Excel file with a password. It covers file-level protection only and not workbook or worksheet protection.

Following way, you can achieve this:

- Select File and then Info.
- **Select the** Protect Workbook **box and choose** Encrypt with Password**.**

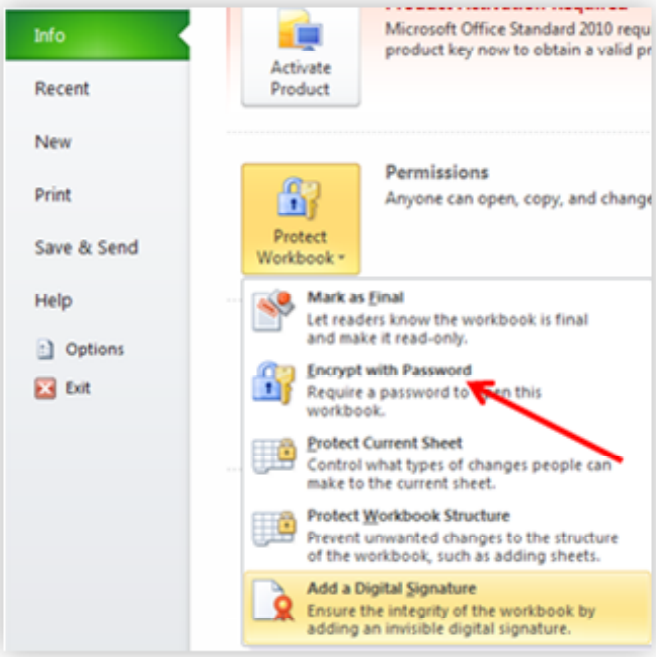


Fig. 12.33: Protect Workbook box

- Enter a password in the Password box, and then select OK.

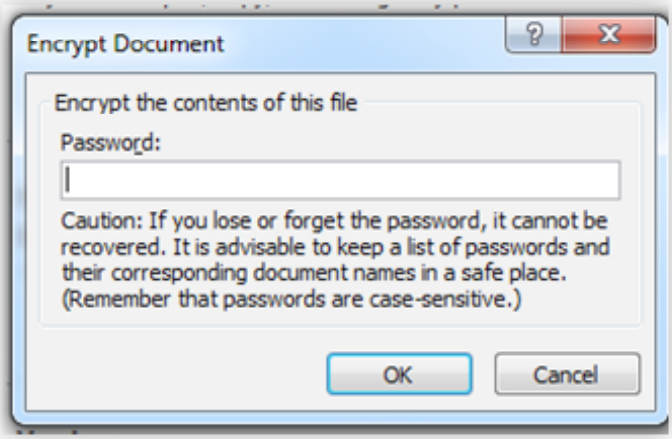


Fig. 12.34: Encrypt Document box

- Confirm the password in the Reenter Password box, and then select OK.

12.8.4 Workbook Level Protection

A user can be restricted to use or change the workbook data even when the user has the access to it.

To implement security at the workbook level, the steps are:

- Select Review tab on the Ribbon.
- Select the Protect Workbook command button from the "Changes" group.
- The Protect Workbook dialog box gets invoked as shown in Figure 12.35.

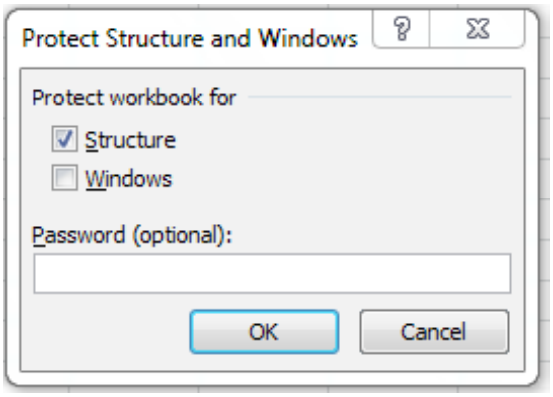


Fig. 12.35: Protect Workbook dialog box

The Protect Workbook dialog box enlists certain options. These are:

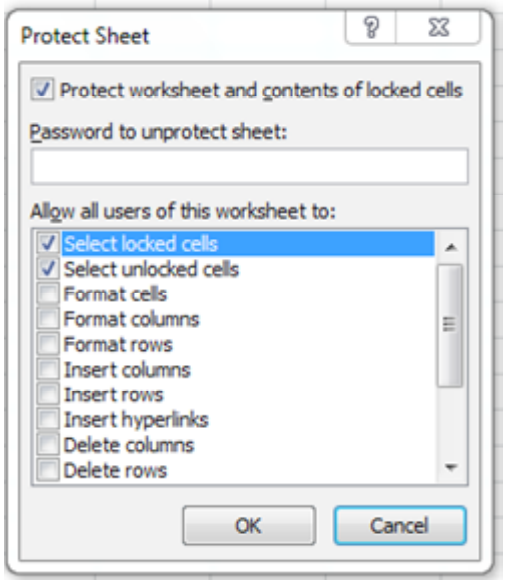
- **Structure** - prevents changes made to worksheet structure. Deleting, inserting, renaming, copying, moving, hiding or un-hiding sheet is prevented.
- **Windows** – checks changes made to workbook windows. Windows control button is hidden and its window functions are deactivated.
- **Password** (optional) – is for optional passwords which can be upto 255 characters including special characters and is case-sensitive.

12.8.5 Worksheet Level Protection

You may want to prevent users from changing the contents of a particular worksheet, which is to say, you may want a user to make changes to one worksheet but not to the others.

You can follow these steps to do so:

- Select Review tab on the Ribbon.
- Select the Protect Sheet command button from the "Changes" group.



. **Fig. 12.36: Protect Sheet**

The Protect Sheet dialog box gets invoked as shown in figure 12.36.

- In the **Allow all users of this worksheet to** list, select the elements you want people to be able to change.
- The Select Locked Cells and Select Unlocked Cells check boxes are selected by default, but you can deselect either or both of these options if you prefer.
- You can also assign a password in the **Password to Unprotect Sheet** text box. Click **ok**. Reenter the password in the **Confirm Password** dialog box and click **OK**.

Note: *To **remove worksheet protection**, click the Unprotect Sheet button in the Changes group on the Review tab. You will be prompted to type the password if you previously set one.*

It is critical that you remember your password. If you forget your password, Microsoft cannot retrieve it.

12.8.6 Cell Protection

Cell protection is sometimes required to keep data in cells secure even when the entire worksheet in which it resides has been worked on by other users.

You can protect the cells by following the steps:

- Select the cells containing the data.
- Click on the right mouse button.
- Select the Format Cells option from the shortcut menu.
- The format cells dialog box gets invoked as shown in fig 37.
- Select the Protection tab.
- There are two options available in the Protection tab. These are:

Locked – this option does not allow the cells to be changed once the sheet is protected.

Hidden – this option hides the formulas once the sheet is protected. (Please read the message below these check boxes).

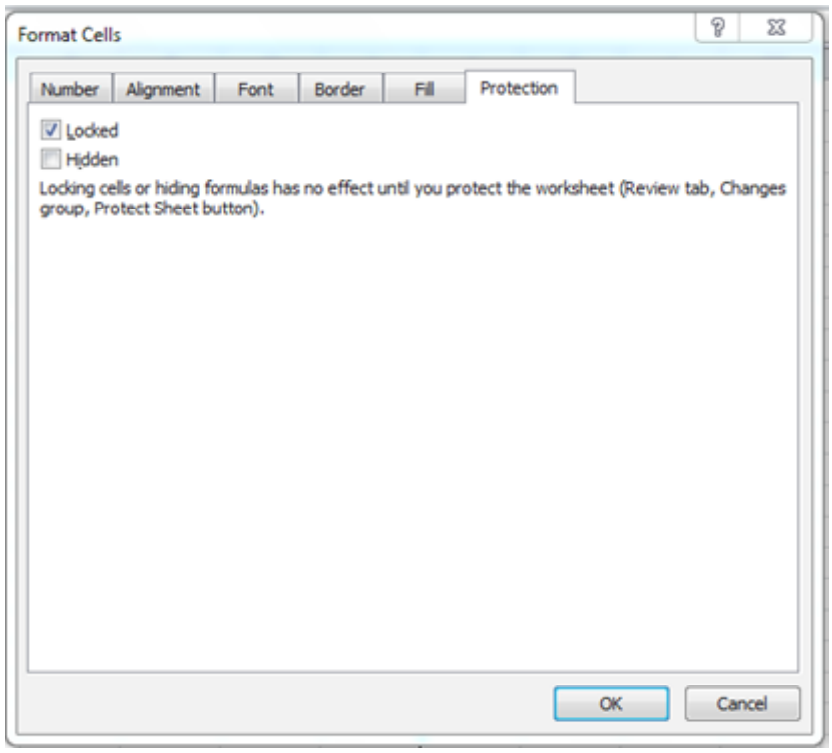


Fig. 12.37: format cells dialog box

12.9 SHARING DATA WITH OTHER APPLICATIONS

Excel allows you to link worksheets to a non-Excel document. You can use Object Linking and Embedding (OLE) to include content from other programs, such as Word. OLE is supported by many different programs, and OLE is used to make content that is created in one program available in another program. For example, you can insert an Office Word document in an Excel workbook.

Using OLE, you can embed or link documents.

- You can embed a document from another application into an Excel worksheet. The embedded application appears as an object which can be moved and resized. Editing the contents of the object is possible by double-clicking on it.

- In a link between two files, the information from the source document is inserted into the destination document. As a result of the link, whenever there is a change in the source document, the data in the destination document is automatically updated.

12.9.1 Inserting Pictures into Worksheets

You can insert pictures, like those created in MS word, into your worksheet to enhance its appearance. To do so, follow these steps:

- Click on Insert menu
- Under Illustrations, Select the Clip Art option. The Microsoft Clip Gallery dialog box gets invoked
- Click on the picture which you want to import.
- Click on the Insert button to complete the process

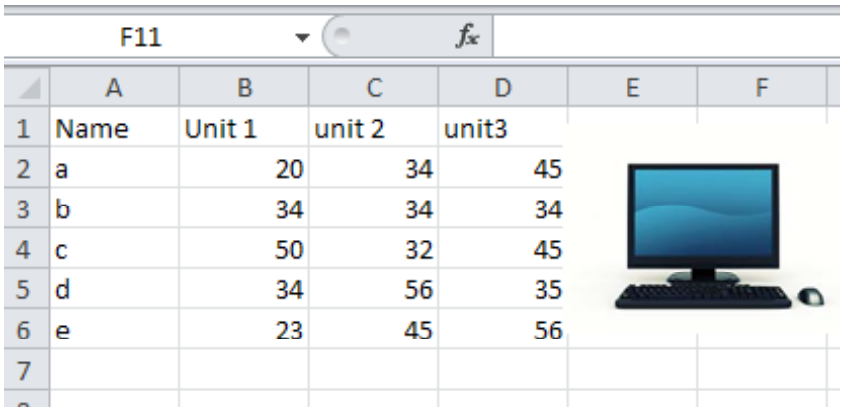


Fig. 12.38: Inserting Pictures into Worksheets

12.9.2 Embedding an object in a Worksheet

You can link documents by following the steps listed here:

- Click inside the cell of the excel sheet where you want to insert the object.
- On the Insert tab, in the Text group, click Object
- In the Object dialog box, click the Create from File tab.
- Click Browse, and select the file you want to insert.
- If you want to insert an icon into the excel sheet instead of show the contents of the file, select the Display as icon check box. If you donnot select any check boxes, Excel shows the first page of the file. In both cases, the complete file opens with a double click.
- Click OK.

12.9.3 Embedding an Excel Object in another Application

To embed the Excel object in other applications, you can:

- Select the worksheet range or the chart that you want to embed.
- On the Home tab, in the Clipboard group, select copy.

- Start the other application.
- Open the document in which you want to embed the Excel object.
- Select the Paste Special option from the Clipboard group.

12.10 WORKING WITH DATA FORMS USING LISTS

A data form is a dialog box that is used to simplify the tasks of entering data, deleting entries and finding specific cell entries. You may find that using a data form can make data entry easier than moving from column to column when you have more columns of data than can be viewed on the screen.

A sample list created in Excel worksheet is shown in Figure 12.39. The columns in this list are considered as Fields and the rows are treated as Records.

Database | fx | Name

	A	B	C	D	E
1	Name	Unit 1	Unit 2	Unit 3	Unit 4
2	A	23	34	23	34
3	B	34	54	23	34
4	D	32	43	23	54
5	E	23	45	34	34

Fig. 12.39: Sample list

12.10.1 Adding Records with Data Forms

To add new records to the list, using the data forms, the steps are:

- First, select the data range
- Select the Form option from the Quick Access Toolbar.
- Form dialog box appears on the screen
- Click on the "New" button to insert new record.

Note: Process of adding any command to Quick Access Toolbar is already discussed in previous unit or same process as MS Word.

At the left side of the form are labels of the fields in the list and the text boxes that show the entries for the records. At the right side of the form are buttons that help to perform specific operation in the list as shown in Figure 12.40.

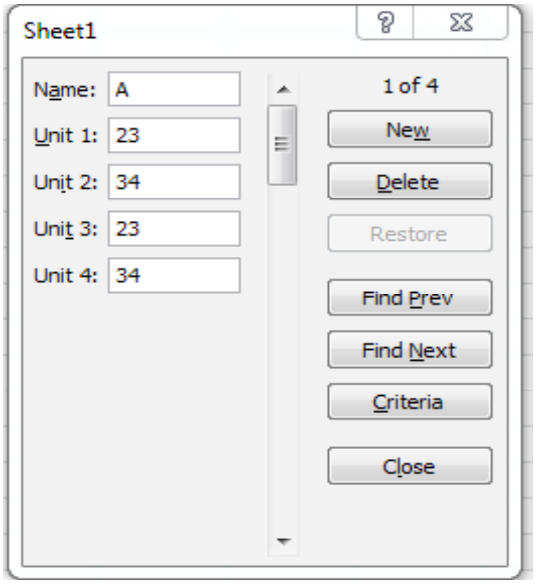


Fig. 12.40: Data Form

12.9.2 Deleting Records with Data Forms

Records can also be deleted from the list with the help of the data forms. When you use the data forms to delete records, you are able to delete only one record at a time.

To delete the records, the steps are:

- Select the Form option from the Quick Access toolbar. This opens up the data form for the current list.
- Scroll to the record that you want to delete.
- Click on the delete button. A message box gets invoked which prompts you to confirm the deletion.
- Confirm delection of the record from the list, or click on Cancel to cancel the deletion.

The records below the deleted records get renumbered automatically.

12.9.3 Finding Records with Data Form

You can use the data form to find particular records in a list. You can view only one record at a time when you use the data form. To search for records, the steps are:

- Select the Form option from the Quick Access Toolbar. This opens the data form for the current list.
- Click on the Criteria button.
- Select a text box and enter the criteria that you want to search.
- To find rows that match the criteria, click Find Next or Find Prev.
- To return to the data form so that you can add, change, or delete rows, click Form OR
- Select the Close button to clear the dialog box.

12.9.4 Sorting Data in a List

Sorting helps to arrange the data entries in a systematic order. You can sort a data base or a list in ascending or descending order.

To sort a list, you can do the following:

- Select data range.

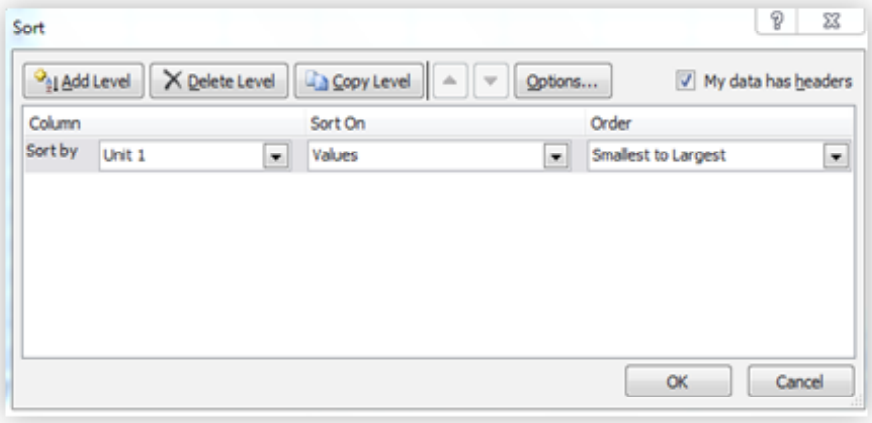


Fig. 12.41: Sort dialog box

Select the sort option from the Sort & Filter group under Data tab. The Sort dialog box gets invoked as shown in Figure 12.41.

- Select the field you want to sort from the Sort by drop-down list.
- For ascending or descending order, click on “Order” drop-down list.
- Use the Options buttons to specify the orientation i.e. top to bottom or left to right.
- Click on the OK button to sort the list.

12.9.5 Filtering Data in a List

Filters allow you to work with selected rows of information in any list, including a list that you have organized as the database. This implies that you can display only those data base records that meet your criteria.

- Select the data range
- Select the Data tab and then locate the Sort & Filter group.
- Click the Filter command.
- Drop-down arrows will appear in the header of each column.
- Click the drop-down arrow for the column you want to filter.
- The Filter menu appears.
- Uncheck the boxes next to the data you do not want to view, or uncheck the box next to Select All to quickly uncheck all.
- Check the boxes next to the data you do want to view.
- Click OK.

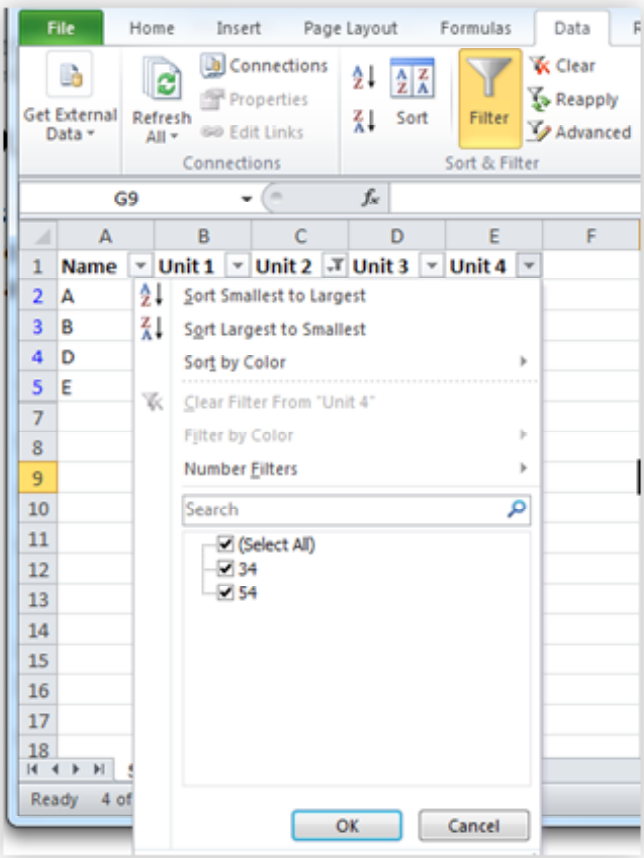


Fig. 12.42: Filter menu

12.11 PIVOT TABLES

Pivot tables enable you to easily summarize and compare data in a list. They are called pivot tables because you can change their layout by rearranging or pivoting the row and column headings quickly and conveniently. You can use pivot tables to create summaries of large amounts of data. You can summarize and rearrange data specifically for charts with the help of pivot tables. Whenever the pivot tables change, the chart based on those pivot tables also change. You can also use them for in-depth data analysis or creating reports.

For creating Pivot tables, do the following steps:

- On the Insert tab, in the Tables group, click Pivot Table.
- Create Pivot tables dialog box is invoked as shown in following figure 12.43.
- Select table or range of data that you want to analyze
- Indicate whether you want to place the pivot table in a new worksheet or an Existing Worksheet.
- Press Ok

This will generate the Pivot table pane as shown in Figure 12.43. You have various options available in the Pivot table pane. You can select fields for the pivot table.

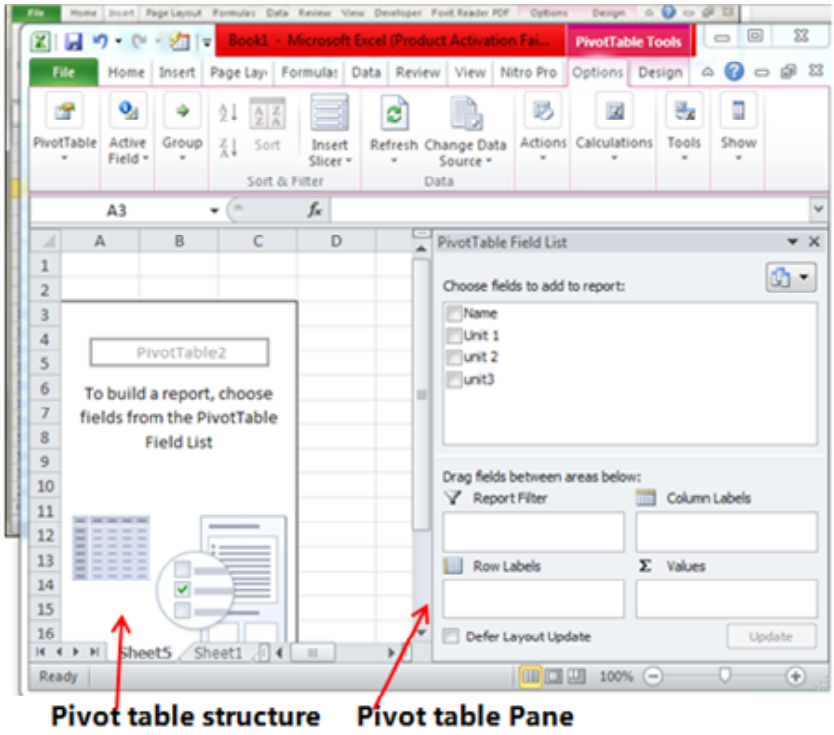


Fig. 12.43: Pivot table pane

- **Report Filter** -you can set the field for filter, then data gets filtered as per the field.
- **Column labels** -A field that has a column orientation in the pivot table. Each item in the field occupies a column.
- **Row labels** -A field that has a row orientation in the pivot table. Each item in the field occupies a row.
- **Values area** -Cells in a pivot table that contain the summary data. Excel offers several ways to summarize the data (sum, average, count, and so on).

After giving input fields to the pivot table, it generates the pivot table with the data as shown below.

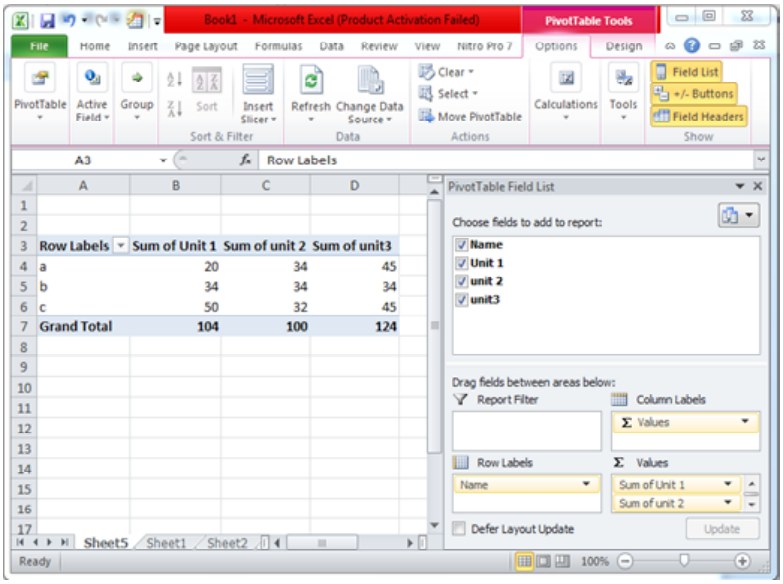


Fig. 12.44: pivot table

12.12 LET US SUM UP

Microsoft Excel 2010 offers excellent features to analyse manage and share information in more ways than ever before. In this Unit, you learnt about various advanced features of Microsoft Excel such as Pivot table, creating header & footer, formulas, functions, macros and inserting picture into worksheet.

Excel provides several levels of protection that can be applied to a workbook. Excel also allows you to link worksheets to a non-Excel document. This way you can embed an Excel Object in another application. Pivot tables enable you to easily summarize and compare data in a list.

Databases are modified and maintained by typing directly in to a worksheet. When you require a more structured way of performing data entry, you can use Excel's built-in forms. A data form shows one record at a time. It can be used to add new records and edit existing records. Sorting arranges data in a list or database in ascending or descending order. Filtering helps you to extract all those records that match your criteria.

12.13 CHECK YOUR PROGRESS EXERCISE

1. What is the difference between formula and function?

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2. What is AutoSum?

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3. What is use of Macro?

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4. Create a list with column headings as Names, Class, Marks, Percentage and Grade and add some records to it. Add some more records to it using the data forms. Sort the list on Name.

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5. What does scaling mean in Excel?

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6. Create a worksheet in which column A has the label Roll-no, column B has the label Names, Column C has the label Marks and Column D has the label percentage.

   Put in the required data for the respective columns in twenty rows for all columns except for the roll number.

   Enter the roll numbers for all twenty students in the format r1, r2, r3,….r20 byusing the Auto Fill feature.

   Enter the marks of every student in the Marks column.

   Calculate the percentage of each student, assuming that the marks are given out of a total of 500.

   Calculate the Grand Total, Average and rename the sheet as RESULT.

   Cut and Paste the student's name and marks in another sheet which should be named as REPORT.

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7. Create a worksheet with data in four pages and send only the first two pages for printing.

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8. Create your own page footers which should specify the page numbers in the format A.1, A.2, and so on.

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12.14 ANSWERS TO CHECK YOUR PROGRESS EXERCISE

1. A formula is statement written by the user to be calculated. Formulas can be as simple or as complex as the user wants. Functions are predefined formulas and are already available in Excel.

   Examples of a formula

   =8+3

=A3+C10

=B7+B8-(4*2)+1

Examples of a Function

=SUM(A3:A18)

=AVERAGE(F2:F8)

2. AutoSum is a function in Microsoft Excel program that adds together a range of cells and displays the total in the cell below the selected range. For example, if you want to add the values of cells between A1 and A8, highlight cells A1 through A8 and click the AutoSum button. After clicking this button, it creates a formula =SUM (A1:A8) in cell A9 and gives you the total of all those cells.

   The AutoSum feature makes entering formulas easy without the need to memorize the syntax for each one.

3. Macros automate frequently performed tasks by changing them into a set of key strokes that are stored or recorded and are assigned a control key. Whenever the specified control key is used, the entire operation is performed automatically. You can have macros for formatting worksheets, report generations and so on.

4. Do it yourself. This is practice exercise.

5. If your worksheet has a lot of columns, you can use the “Scale to Fit” options to reduce the size of the worksheet to better fit the printed page.

6. Do it yourself. This is practice exercise.

7. Select the print option from the file menu. In the print dialog box, specify pages 1 to 2 in the page range section.

8. Select the Page Setup option from the Page Layout tab. Click on the Custom footer. Click on the Center section on the Footer dialog box. Type A, and click on the Page number button. Click on the OK button.