

Chapter 4: Data Validation



Objective

This chapter

- Helps you understand how to restrict data entry in a cell or a worksheet.
- Discusses the different Data Validation techniques in excel.

Suppose you do not want the user to enter a non text value in a cell or you want to restrict data entry to certain values. You may use Data Validation for these.

Data Validation is a process which restricts the users from entering invalid data for individual cells or cell ranges. It limits the data entry to a particular type, such as whole numbers, decimal numbers or text and sets limit on valid entries.

Setting Data Validation Rules

To create a set of rules for data validation, do the following.

- 1) Select the cells for which you want to create a validation rule.
- 2) On the Data tab, in the Data Tools group, click Data Validation to open the Data Validation dialog
- 3) Activate the Settings tab.
- 4) From the Allow list, select a data validation option.
- 5) From the Data list, select the operator you want. Then complete the remaining entries.
- 6) Enter the Input Message if required in Input Message tab.
- 7) Enter the error message if required in Error Alert tab.
- 8) Click OK to set the validation rule and close the dialog box.

Methods of Data Validation

Creating a List

A list is an effective form of data validation where the user is allowed to select an option from a drop-down list which is built-in to the cell (**Figure 4.2**). The data source may be written manually by the user or selected from the same sheet.

Steps are as follows.

- 1) Select a blank cell
- 2) Select Data Tab
- 3) Select Data Validation from Data Tool group
- 4) Select List
- 5) In Source, select the cell with values, or type the data with comma.

Tips: If the source is from a different sheet, create a named range for all the values and use the name in the Source field for Data Validation.

Allow Numbers within Limits

- 1) In the Allow box, click Whole Number or Decimal.
- 2) In the Data box, select the type of restriction you want. For example, to set upper and lower limits, select Between.
- 3) Enter the minimum, maximum, or specific value to allow.

Allow Dates or Times within a Timeframe

- 1) In the Allow box, select Date or Time.
- 2) In the Data box, select the type of restriction you want. For example, to allow dates after a certain day, select greater than.
- 3) Enter the start, end, or specific date or time to allow.

Allow Text of a Specified Length

- 1) In the Allow box, click Text Length.
- 2) In the Data box, click the type of restriction you want. For example, to allow up to a certain number of characters, click less than or equal to.
- 3) Enter the minimum, maximum, or specific length for the text.

Calculate What is Allowed Based on the Content of another Cell

- 1) In the Allow box, select the type of data you want.
- 2) In the Data box, select the operator (for the criteria) you want.
- 3) In the box or boxes below the Data box, click the cell that you want to use to specify what's allowed. For example, to allow entries for an account only if the result won't go over the budget, click Decimal for Allow, select less than or equal to for Data, and in the Maximum box, click the cell that contains the budget amount.

Use a Formula to Calculate What is Allowed

- 1) In the Allow box, click Custom.
- 2) In the Formula box, enter a formula that calculates a logical value (TRUE for valid entries or FALSE for invalid). For example, to give an incentive only if the dept is sales and the region west, you may use the following custom formula **=and(d2="sales",e2="west")**.

To display an optional input message when the cell is clicked, click the Input Message tab, and make sure that, the-Show Input Message When Cell is Selected - check-box is selected and fill in the title and text for the message.

Specify how you want Microsoft Excel to respond when invalid data is entered:

- 1) Click the Error Alert tab, and make sure the Show Error Alert After Invalid Data is Entered check box is selected.
- 2) Select one of the following options for the Style box:
 - To display an information message that does not prevent entry of invalid data, select Information.
 - To display a warning message that does not prevent entry of invalid data, select Warning.
 - To prevent entry of invalid data, select Stop.
- 3) Fill in the title and text for the message (up to 225 characters).

If you do not enter a title or text, the title defaults to **"Microsoft Excel"** and the message to **"The value you entered is not valid. A user has restricted values that can be entered into this cell."**