

# DataValidation

## Description

A [DataValidation](#) object represents a rule for validating data entered in cells. The rule may be applied to a cell or a set of cells. The [Workbook](#) class contains several [CreateDataValidation](#) methods for creating [DataValidation](#) objects. To apply a [DataValidation](#) object to a cell or group of cells, use [Area.SetDataValidation](#) or [Range.SetDataValidation](#).

### C#

```
public sealed class DataValidation
```

### vb.net

```
Public NotInheritable Class DataValidation
```

## Remarks

In Microsoft Excel, data validation rules are created through the **Data Validation** dialog. To open this dialog, open the **Data** menu and select **Validation**.

## Examples

### C#

```
ExcelApplication xlw = new ExcelApplication();
Workbook wb = xlw.Create();

//--- Create a data validation rule:
DataValidation dv = wb.CreateDataValidation(
    DataValidation.ValidationType.WholeNumber,
    DataValidation.ComparisonType.Between,
    "=1", "=100");
String formula = "Sheet1!A2:F33 Sheet2!A5:D15";

//--- Apply the rule to a Range:
wb.CreateRange(formula).SetDataValidation(dv);
```

## vb.net

```
Dim xlw As New ExcelApplication()
Dim wb As Workbook = xlw.Create()

'--- Create a data validation rule:
Dim dv As DataValidation = wb.CreateDataValidation( _
    DataValidation.ValidationType.WholeNumber, _
    DataValidation.ComparisonType.Between, _
    "=1", "=100")
Dim formula As String = "Sheet1!A2:F33 Sheet2!A5:D15"

'--- Apply the rule to a Range:
wb.CreateRange(formula).SetDataValidation(dv)
```

## Properties

Name	Description
AllowedType	Returns the type of value that may be entered in a cell.
Comparison	Returns the type of comparison that will be used to validate a value entered in a cell with a data validation rule.
ErrorAlert	Sets or returns the content of the error alert message displayed when invalid data is entered in a cell.
ErrorAlertStyle	Sets or returns the style of error alert to display if error alerts are enabled.
ErrorAlertTitle	Sets or returns the title of the error alert dialog that is displayed when invalid data is entered in a cell.
IgnoreBlanks	Sets or returns whether the data validation rule should ignore blank cells.
InputMessage	Sets or returns the content of the input message dialog that is displayed when the user selects a cell with a data validation rule.
MinimumValue	Sets or returns the minimum value that may be entered in a cell with a data validation rule.
MaximumValue	Sets or returns the maximum value that may be entered in a cell with a data validation rule.
ShowErrorAlert	Sets or returns whether Excel should display an error alert if invalid data is entered.
ShowInputMessage	Sets or returns whether to show a message when the user selects a cell to which a data validation rule applies.
Title	Sets or returns the title of the input message dialog that is displayed when the user selects a cell with a data validation rule.
UseListDropdown	Sets or returns whether a drop-down list will be used to display valid values.

## Methods

Name	Description
Clear()	Sets all properties of the <code>DataValidation</code> object to an uninitialized state.
SetAllowedType(ValidationType, ComparisonType, Object)	Sets the allowed data type, comparison type, and minimum value to use when validating a cell entry.
SetAllowedType(ValidationType, ComparisonType, Object, Object)	Sets the allowed data type, comparison type, and minimum and maximum values to use when validating a cell entry.
SetAllowedType(ValidationType, Object)	Sets the allowed data type and a set of valid values to use when validating a cell entry.

## Nested Classes

Name	Description
<code>ComparisonType</code>	The type of comparison that will be used for validating the value of the cell.
<code>ErrorAlertStyleType</code>	Type style of the icon in the error alert message box.
<code>ValidationType</code>	The data type allowed as the cell's value.