

ASP.NET validation controls validate the user input data to ensure that useless, unauthenticated, or contradictory data don't get stored

ASP.NET provides the following validation controls

- RequiredFieldValidator
- RangeValidator
- CompareValidator
- RegularExpressionValidator
- CustomValidator
- ValidationSummary

## BaseValidator Class

The validation control classes are inherited from the BaseValidator class hence they inherit its properties and methods. Therefore, it would help to take a look at the properties and the methods of this base class, which are common for all the validation controls:

| Members            | Description  |
|--------------------|--|
| ControlToValidate  | Indicates the input control to validate              |
| Display            | Indicates how the error message is shown.            |
| EnableClientScript | Indicates whether client side validation will take.  |
| Enabled            | Enables or disables the validator.                   |
| ErrorMessage       | Indicates error string.                              |
| Text               | Error text to be shown if validation fails.          |
| IsValid            | Indicates whether the value of the control is valid. |

|                 |   |
|-----------------|---|
| SetFocusOnError | It indicates whether in case of an invalid control, the focus should switch to the related input control. |
| ValidationGroup | The logical group of multiple validators, where this control belongs.                                     |
| Validate()      | This method revalidates the control and updates the IsValid property.                                     |

## RequiredFieldValidator Control

The RequiredFieldValidator control ensures that the required field is not empty. It is generally tied to a text box to force input into the text box.

The syntax of the control is as given:

```
<asp:RequiredFieldValidator ID="rfvcandidate"
    runat="server" ControlToValidate ="ddlcandidate"
    ErrorMessage="Please choose a candidate"
    InitialValue="Please choose a candidate">

</asp:RequiredFieldValidator>
```

## RangeValidator Control

The RangeValidator control verifies that the input value falls within a predetermined range.

It has three specific properties:

| Properties   | Description   |
|--------------|---|
| Type         | It defines the type of the data. The available values are: Currency, Date, Double, Integer, and String. |
| MinimumValue | It specifies the minimum value of the range.  |
| MaximumValue | It specifies the maximum value of the range.  |

The syntax of the control is as given:

```
<asp:RangeValidator ID="rvclass" runat="server"
ControlToValidate="txtclass"
    ErrorMessage="Enter your class (6 - 12)" MaximumValue="12"
    MinimumValue="6" Type="Integer">

</asp:RangeValidator>
```

## CompareValidator Control

The CompareValidator control compares a value in one control with a fixed value or a value in another control.

It has the following specific properties:

| Properties       | Description   |
|------------------|---|
| Type             | It specifies the data type.   |
| ControlToCompare | It specifies the value of the input control to compare with.  |
| ValueToCompare   | It specifies the constant value to compare with.  |
| Operator         | It specifies the comparison operator, the available values are: Equal, NotEqual, GreaterThan, GreaterThanEqual, LessThan, LessThanEqual, and DataTypeCheck. |

The basic syntax of the control is as follows:

```
<asp:CompareValidator ID="CompareValidator1" runat="server"
    ErrorMessage="CompareValidator">

</asp:CompareValidator>
```

## RegularExpressionValidator

The RegularExpressionValidator allows validating the input text by matching against a pattern of a regular expression. The regular expression is set in the ValidationExpression property.