SOS IN COMPUTER SCIENCE & APPLICATION
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Topic : Validations in ASP .NET

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VALIDATORS IN ASP .NET-

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.

Method	Description
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:

Methods	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.

COMPAREVALIDATOR CONTROL –

The basic syntax of the control is as follows:

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

ErrorMessage="CompareValidator">

</asp:CompareValidator>
```

REGULAREXPRESSION VALIDATOR –

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

The following table summarizes the commonly used syntax constructs for regular expressions:

Character Escapes	Description
\b	Matches a backspace
\t	Matches a tab
\r	Matches a carriage return
\v	Matches a vertical tab
\f	Matches a form feed
\n	Matches a new line
\	Escape character

REGULAREXPRESSION VALIDATOR –

Metacharacters	Description
.	Matches any character except \n.
[abcd]	Matches any character in the set.
[^abcd]	Excludes any character in the set.
[2-7a-mA-M]	Matches any character specified in the range.
\w	Matches any alphanumeric character and underscore.
\W	Matches any non-word character.
\s	Matches whitespace characters like, space, tab, new line etc.
\S	Matches any non-whitespace character.

REGULAREXPRESSION VALIDATOR –

Quantifiers could be added to specify number of times a character could appear.

Quantifier	Description
*	Zero or more matches
+	One or more matches
?	Zero or one matches
{N}	N matches
{N,}	N or more matches
{N,M}	Between N and M matches

The syntax of the control is as given:
```
<asp:RegularExpressionValidator ID="string"
runat="server"
ErrorMessage="string"
ValidationExpression="string"
ValidationGroup="string">
</asp:RegularExpressionValidator>
```