

Design: Validation

Definition

Validation is used to check that the data entered for an attribute is what is expected. There are four types of validation that can be applied to an attribute:

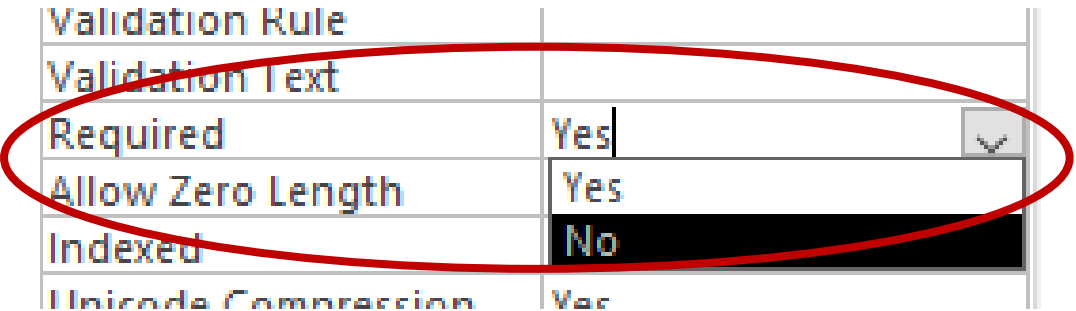
- Presence check
- Length check
- Range check
- Restricted choice



Presence Check

A presence check makes sure the person entering data cannot leave this attribute blank. For example, when signing up for a new online account, you cannot leave the email address field empty.

Microsoft Access: implement presence check validation in the Design View of Access. Set the Required property to 'Yes'.



Validation Rule	
Validation Text	
Required	Yes
Allow Zero Length	Yes
Indexed	No
Unicode Compression	Yes

Length Check

The length validation rule makes sure the minimum and/or maximum number of characters have been entered for attributes with a 'Text' data type.

Microsoft Access: implement Length Check validation in the Design View of Access. Set the Validation Rule property to an appropriate rule.

For example, `Len([FieldName])=5`, replacing `FieldName` with the name of the attribute that requires the validation.

General Lookup	
Field Size	255
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	<code>Len([First name]) >= 3</code>
Validation Text	
Required	Yes
Allow Zero Length	Yes
...	...

Length Check

Length validation can check for:

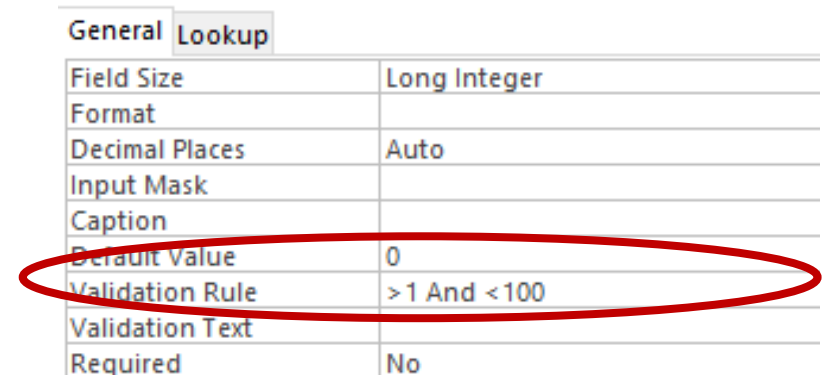
- an exact number of characters, e.g. that a phone number is 11 digits long
- a minimum number of characters, e.g. that your password is at least 8 characters long
- a maximum number of characters, e.g. the maximum length of a Tweet is 280 characters
- a mix of both, e.g. your username must be more than 8 characters and less than 16 characters long

Range Check

The value of an attribute with a Number data type can be limited to values between a maximum and a minimum, giving a range of possible values. For example between 0 and 10 or between -25 and 25.

Microsoft Access: implement Range Check validation in the Design View of Access. Set the Validation Rule property to an appropriate rule.

When validating times, you must surround the values with a # symbol, e.g. `>=#16:00:00#` and `<=#18:00:00#`



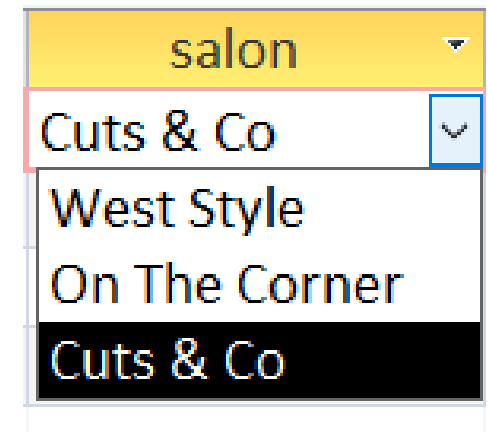
The screenshot shows the 'Lookup' tab in the Microsoft Access Design View. The 'Validation Rule' property is highlighted with a red oval and set to '> 1 And < 100'. The 'Default Value' is set to '0'. The 'Field Size' is 'Long Integer', 'Format' is 'Auto', 'Input Mask' is empty, 'Caption' is empty, 'Validation Text' is empty, and 'Required' is 'No'.

General Lookup	
Field Size	Long Integer
Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	> 1 And < 100
Validation Text	
Required	No

Restricted Choice

A restricted choice validation rule limits the values for an attribute to a selection of predefined options. For example, jackets available in sizes S, M, L, XL, XXL, these are the only allowed values for the attribute.

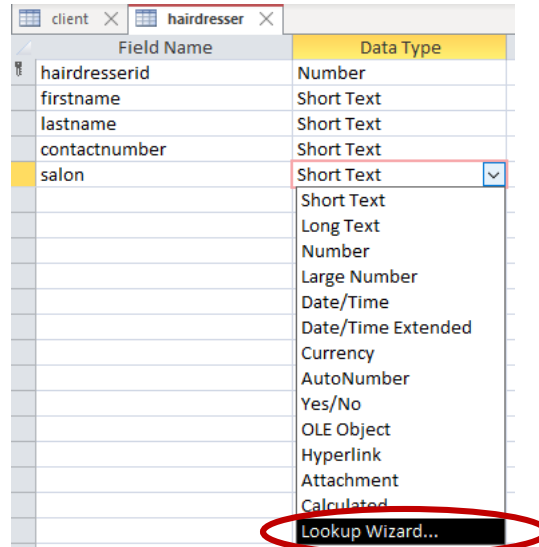
Restricted choice helps to ensure that data integrity is maintained, as users cannot make spelling mistakes when adding information.



salon ▼

- Cuts & Co ▼
- West Style
- On The Corner
- Cuts & Co

Restricted Choice



Microsoft Access: implement Restricted Choice validation in the Design View of Access. Set the Data Type to 'Lookup Wizard'. Select 'I will type in the values that I want'.

Enter the values allowed in restricted choice validation. This will mean that the user will have a drop-down when adding information instead of having to type.

