

To enforce a strong password in your CIS SQL Database system that includes numbers, upper- and lower-case letters, and special characters, you can use a **regular expression (regex)** in the **Validation String** field. This regex will ensure that the password meets the following criteria:

- At least one uppercase letter
- At least one lowercase letter
- At least one digit
- At least one special character (e.g., !@#\$%^&*)
- Minimum length (e.g., 8 characters)

Here's a regex pattern that fits these criteria:

ruby

Copy code into validation string in users table under password validation.

```
^(?=.*[A-Z])(?=.*[a-z])(?=.*\d)(?=.*[@$!%*?&])[A-Za-z\d@$!%*?&]{8,}$
```

See Diagram 1

Explanation:

- `^`: Start of the string.
- `(?=.*[A-Z])`: Ensure at least one uppercase letter.
- `(?=.*[a-z])`: Ensure at least one lowercase letter.
- `(?=.*\d)`: Ensure at least one digit.
- `(?=.*[@$!%*?&])`: Ensure at least one special character.
- `[A-Za-z\d@$!%*?&]{8,}`: Allow letters, digits, and special characters, with a minimum of 8 characters.
- `$`: End of the string.

Example of how to fill in your fields:

- **Validation String:** `^(?=.*[A-Z])(?=.*[a-z])(?=.*\d)(?=.*[@$!%*?&])[A-Za-z\d@$!%*?&]{8,}$`
- **Max Length:** Depending on your system's needs, set it to 20 or another suitable number.

- **Mask String:** ***** (If you want to mask the input for security reasons.)

Diagram 1

Record has been saved successfully

Edit Field

Field Name: password

Save Field in Table?

Include In Export List?

*** Caption:** Password

Required: ?

Is Unique? ?

Active Flag: ?

Control Type: TextBox

Data Type: Encrypted

Max Length: 0 ?

Validation String: ^(?=.*[A-Z])(?=.*[a-z])(?=.*\d)(?=.*[@\$!%*?&])[A-Za-z\d@!%*?&]{8,}\$?

Mask String: ?

Width: 400

Grid Align: None

Wrap Grid Cell Data? Yes

Grid Format: ?

Priority: 8

Help Tooltip: Tooltip With Image Icon

Default Value: ?

Render in HTML? No