

Lab 4 – Add Validations to your Forms

Overview

This document details the steps on how you can use the **GetErrors** command in FormsViewer to display validation errors in your form. With **GetErrors** and **GetErrorCount** commands, you can easily replace required fields with validation rules.

Before you start

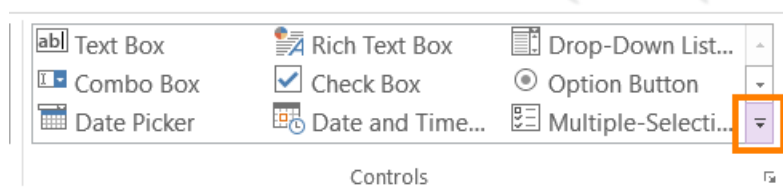
This lab assumes that you have finished the previous labs in this training. Use the Start form provided in this lab.

qRules in Action

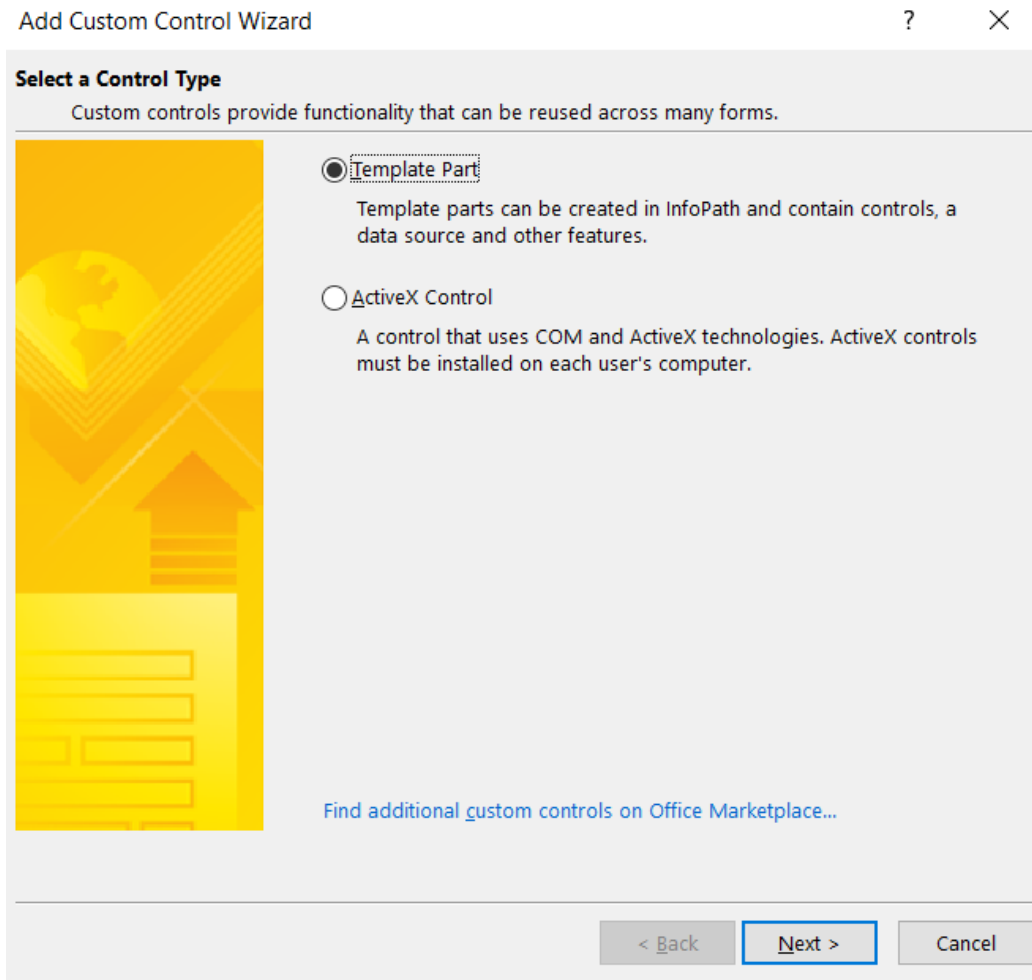
- **GetErrors** – provides a list of the form's current validation errors (if any) as a string value.
- **GetErrorsCount** – returns the number of current validation errors in the form.
- **ClearErrors** – clears all current validation errors in the form.

Add the Validation XTP

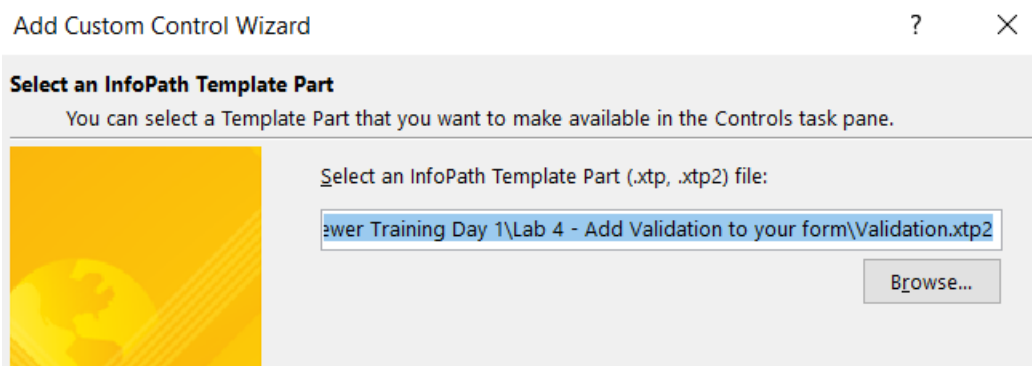
1. Open *Lab 4 - Data Validation Start.xsn* in Design mode.
2. Under the Home Tab, expand the Controls section



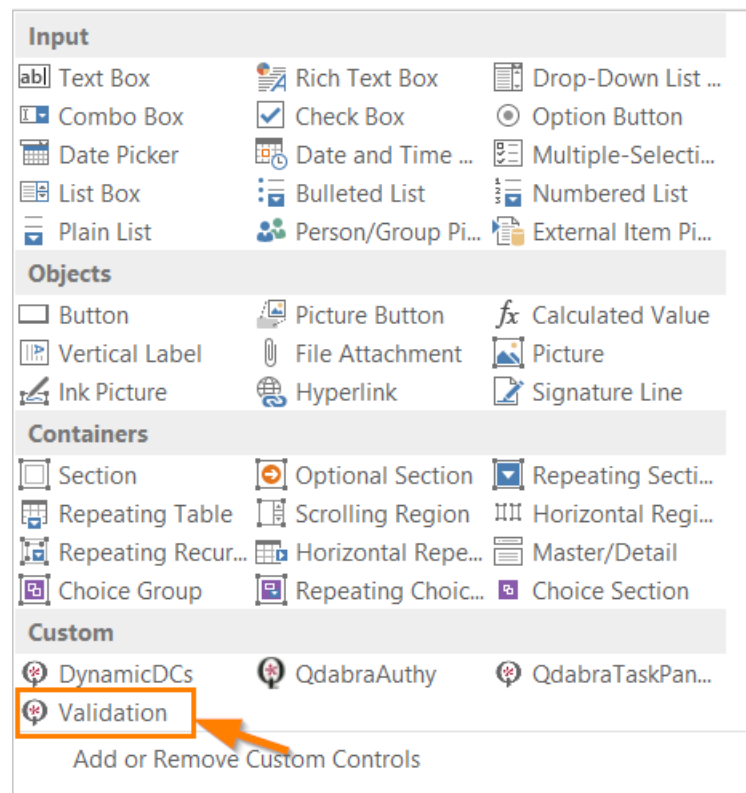
3. Click **Add or Remove Custom Controls**.
4. Click **Add**.
5. Select **Template Part**.



6. Click **Next**.
7. At the next page, click Browse and locate the Validation.xtp2 file



8. Click Finish and close the Custom Control Wizard. The Validation XTP should now be available at the Custom Controls section:



- In the form canvas, make some spaces above the header section. Point your mouse cursor at the top –


Close

EXPENSE REPORT

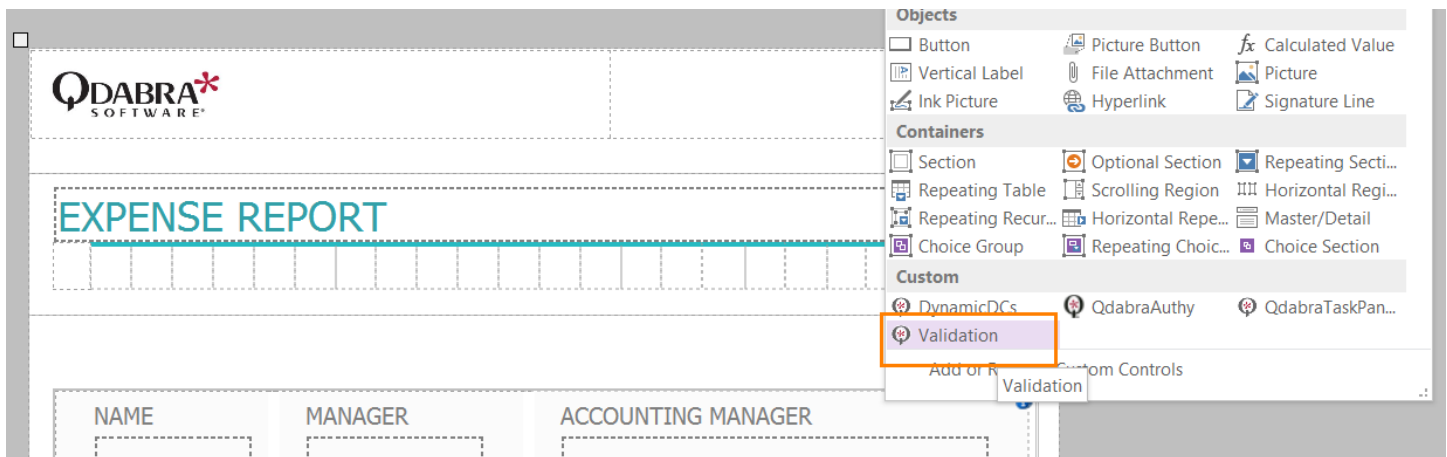
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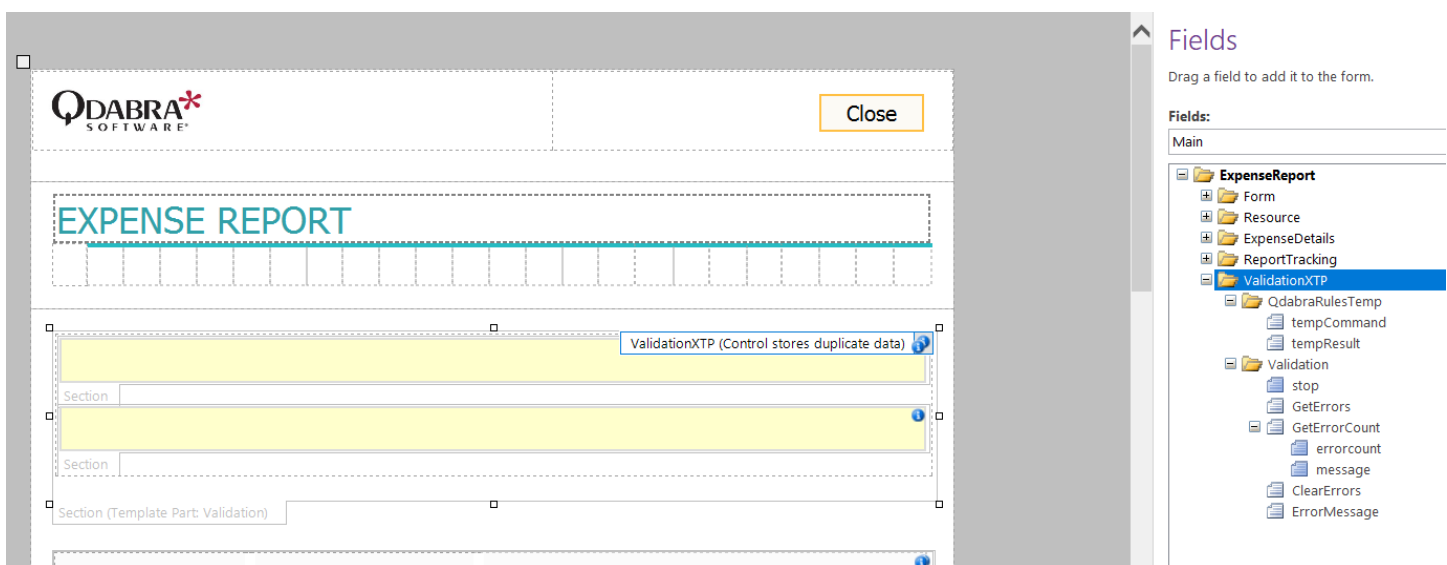
NAME 	MANAGER 	ACCOUNTING MANAGER
REPORT DATE 	BUSINESS PURPOSE* 	

Section

10. While the cursor is placed there, click on the Validation XTP in Custom Controls.

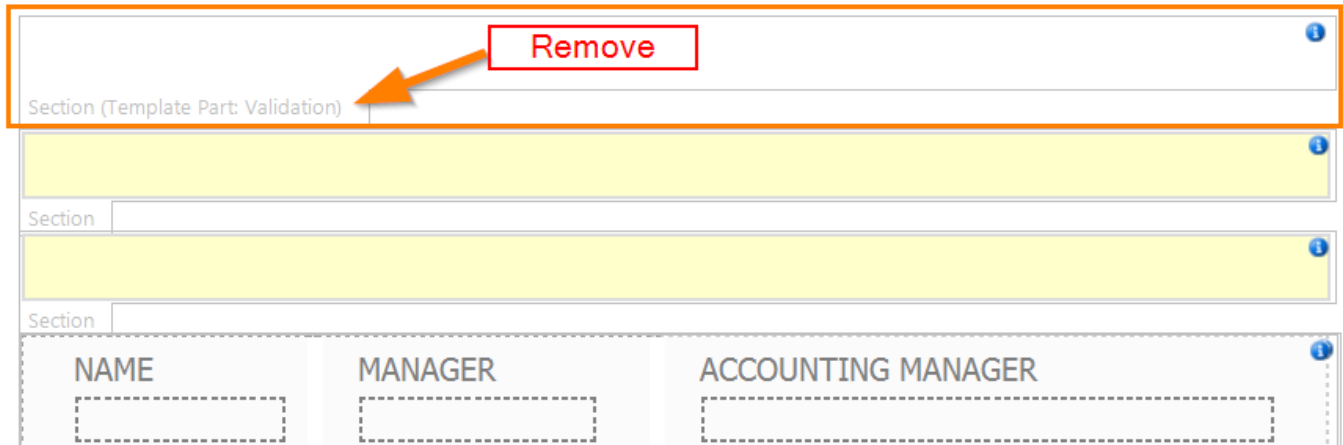


11. This will add the Validation XTP section in the view and its form logic in the main data source.



12. In the screenshot below, I move the two sections out of the template part XTP. And then I'll remove the template part section.

EXPENSE REPORT



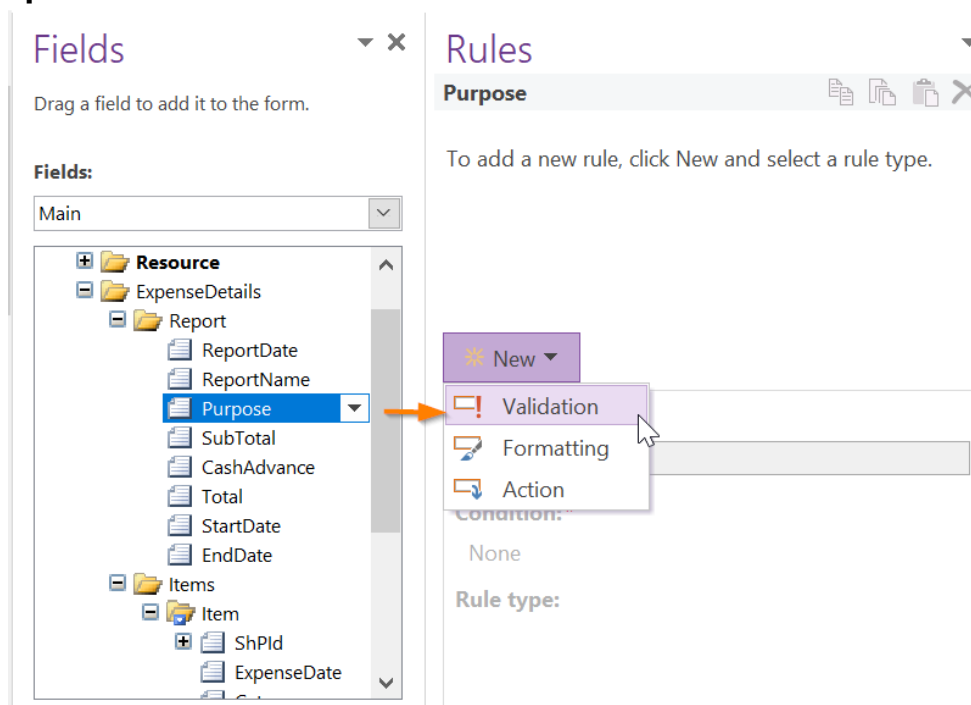
The form template consists of several sections:

- A top section labeled "EXPENSE REPORT" with a dashed border.
- A section labeled "Section (Template Part: Validation)" with a red "Remove" button and an orange arrow pointing to it.
- A yellow section labeled "Section".
- Another yellow section labeled "Section".
- A bottom section with three fields: "NAME", "MANAGER", and "ACCOUNTING MANAGER", each with a dashed border.

Add Validation Rules to Form Fields

The Expense Report Form has four required fields – Business Purpose, Category, Expense Date, and Amount. Let's add some validation rules to these fields.

1. Select the **Purpose** field in the main data source and add a validation rule.



The screenshot shows the QDABRA software interface with two panels:

- Fields Panel:** Displays a tree view of the data source. The "Purpose" field is selected under the "Report" folder.
- Rules Panel:** Shows a list of rule types: "New", "Validation", "Formatting", and "Action". The "Validation" rule type is highlighted, and an orange arrow points from the "Purpose" field in the Fields panel to it.

2. Add a validation condition to check if Purpose is blank.

Fields

Drag a field to add it to the form.

Fields:

Main

- Resource
 - ExpenseDetails
 - Report
 - ReportDate
 - ReportName
 - Purpose
 - SubTotal
 - CashAdvance
 - Total
 - StartDate
 - EndDate
 - Items
 - Item
 - ShPid
 - ExpenseDate

☐ Show details

Rules

Purpose

Validation

New

Details for: Validation

Condition: * Purpose is blank

Rule type: Validation

ScreenTip: *

[Show more options](#)

3. In the **ScreenTip** field, add a message that you would want to show up as part of the field's validation. A sample would be "Please enter a business purpose."

Fields

Drag a field to add it to the form.

Fields:

Main

- Resource
 - ExpenseDetails
 - Report
 - ReportDate
 - ReportName
 - Purpose
 - SubTotal
 - CashAdvance
 - Total
 - StartDate
 - EndDate
 - Items
 - Item
 - ShPid
 - ExpenseDate

☐ Show details

Actions

Rules

Purpose

Validation

New

Details for: Validation

Condition: * Purpose is blank

Rule type: Validation

ScreenTip: * Please enter a business purpose.

[Show more options](#)

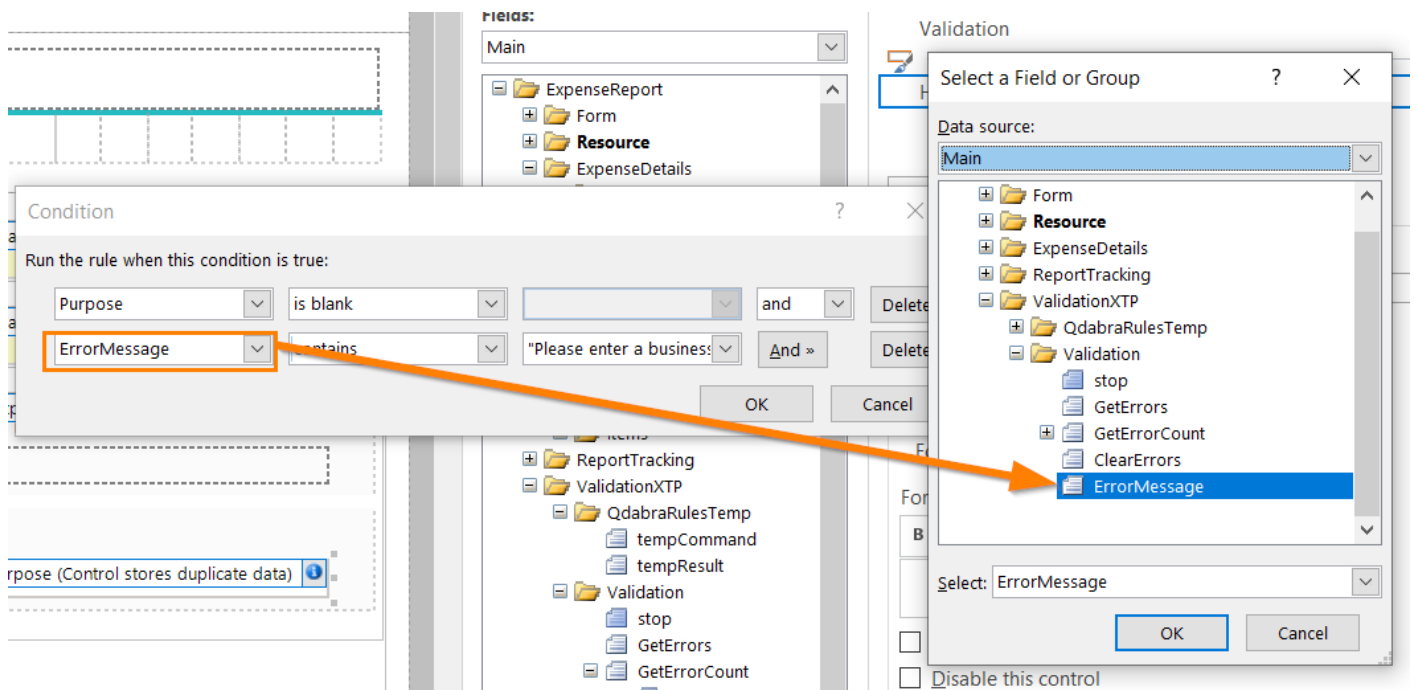
4. Add a Formatting rule.

The screenshot shows the QDABRA software interface. On the left, there's a form titled 'EXPENSE REPORT'. It has several sections, including 'NAME', 'MANAGER', 'ACCOUNTING MANAGER', 'REPORT DATE', and 'BUSINESS PURPOSE*'. The 'BUSINESS PURPOSE*' field is highlighted with an orange box. On the right, there's a 'Rules' panel. It shows a list of rules with 'Formatting' selected. The 'Condition' for the 'Formatting' rule is 'Purpose is blank'. An orange arrow points from the 'BUSINESS PURPOSE*' field in the form to the 'Formatting' rule in the 'Rules' panel.

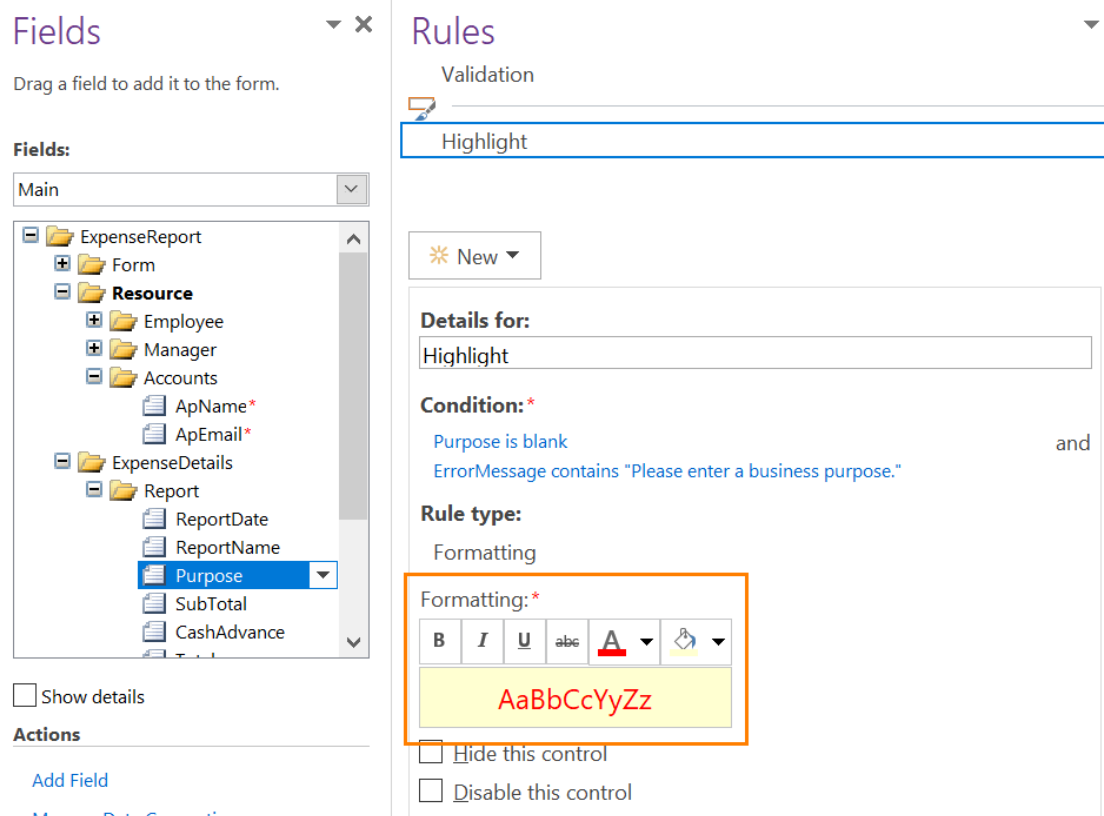
5. Name the formatting rule "Highlight". Add a condition to the formatting rule that checks when the **Purpose** field is blank AND if the **ErrorMessage** field contains the value/phrase you added in the ScreenTip in [step 3](#).

The screenshot shows the 'Rules' panel in the QDABRA software. The 'Highlight' rule is selected. The 'Condition' for the 'Highlight' rule is 'Purpose is blank and ErrorMessage contains "Please enter a business purpose"'. The 'Rule type' is 'Validation'. The 'Details for:' field is 'Highlight'.

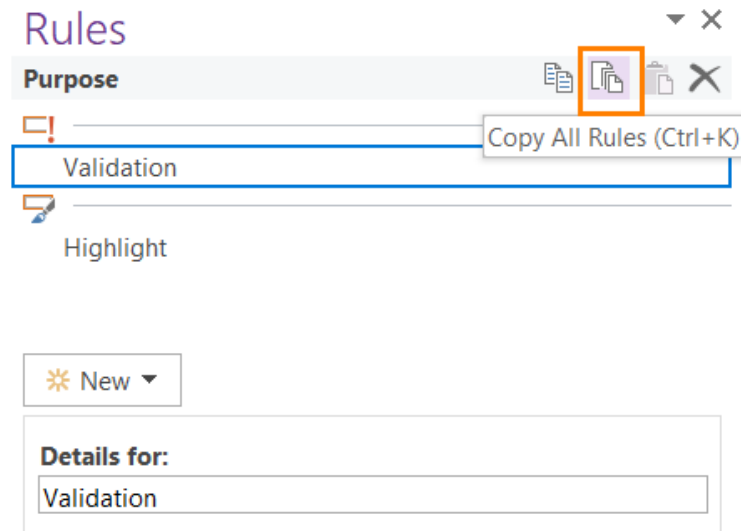
The **ErrorMessage** field can be found in the Validation XTP logic in the main data source:



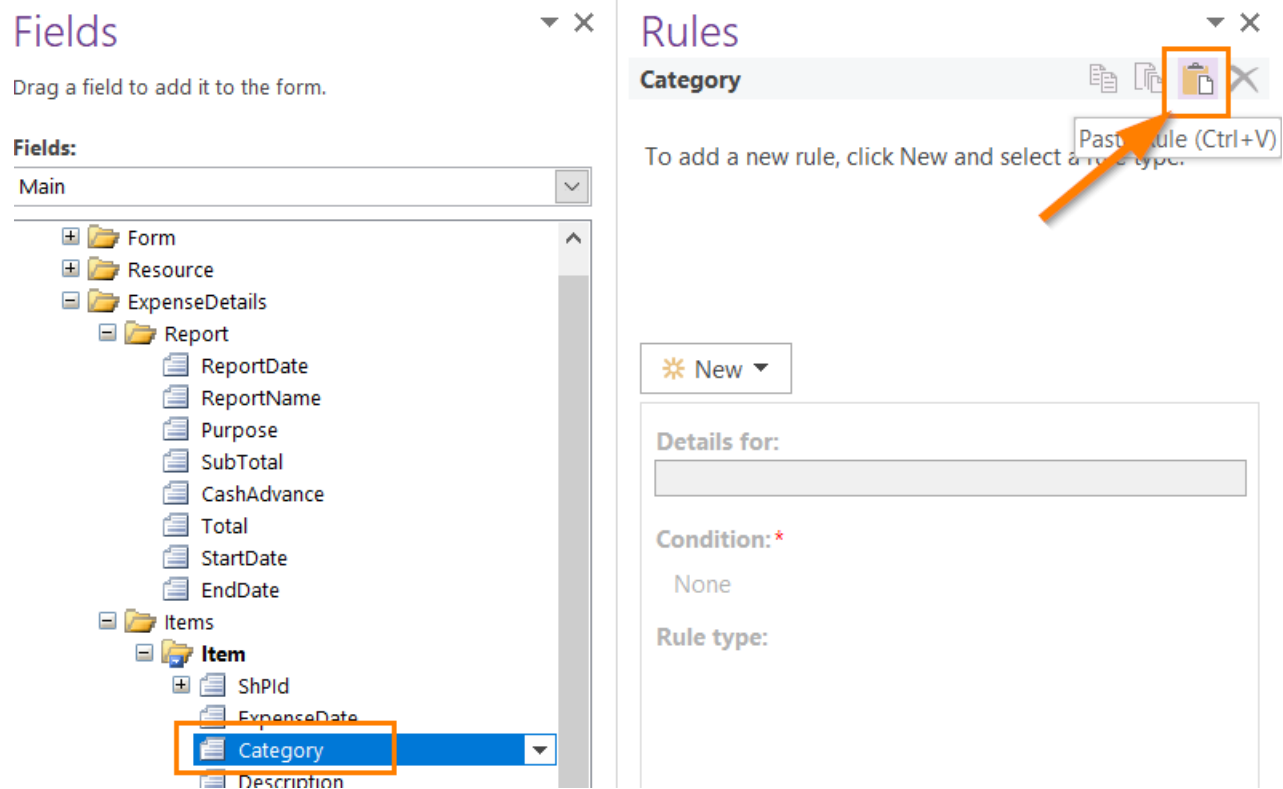
6. Use any colors for highlighting the field and text. Here we are using yellow shade as the field color and red for the text when validation errors are found.



7. Now that we've added validation and formatting rules to the Purpose field, repeat the same steps for the rest of the required fields (Category, Expense Date, and Amount). To simplify the process, select the Purpose field and click **Copy All Rules**.



8. Select the field (**Category**) and click **Paste Rule**.



- The Validation and Highlight rules will be pasted. Verify that the conditions are pointing to the right field and reselect if they are not. Also, make sure to replace the ScreenTip.

The image displays two side-by-side screenshots of the QDABRA Rules editor interface. Both windows are titled 'Rules' and have a 'Category' dropdown menu.

Left Screenshot (Validation Rule):

- Category:** Validation
- Condition:** Category is blank
- Rule type:** Validation
- ScreenTip:** Please select a Category.
- Buttons:** New, Show more options

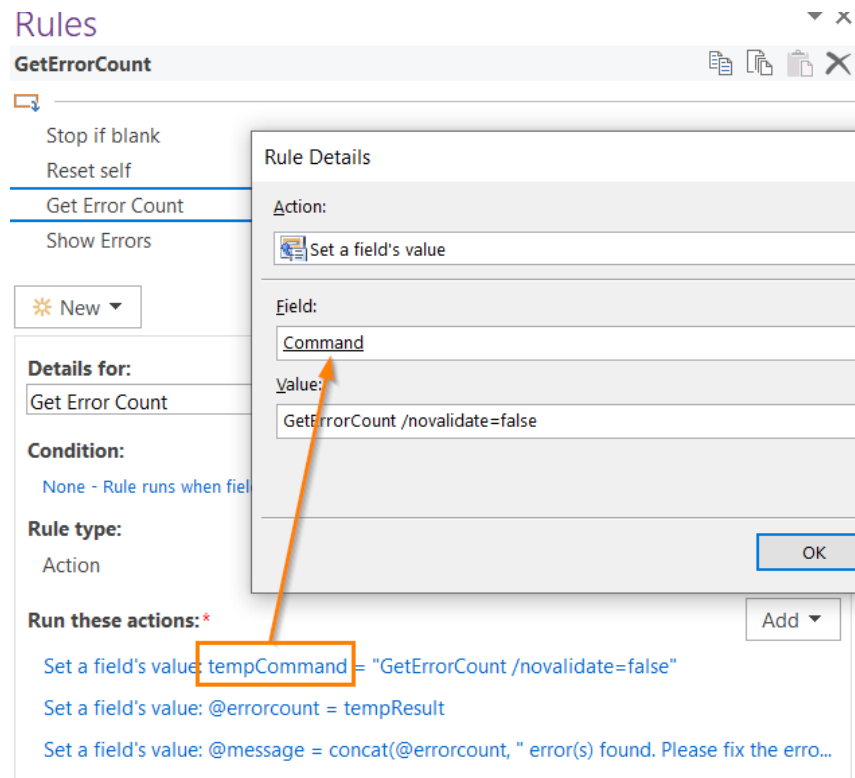
Right Screenshot (Highlight Rule):

- Category:** Highlight
- Condition:** Category is blank
- ErrorMessage:** Please select a Category.
- Rule type:** Formatting
- Formatting:** AaBbCcYyZz
- Buttons:** New, Hide this control, Disable this control

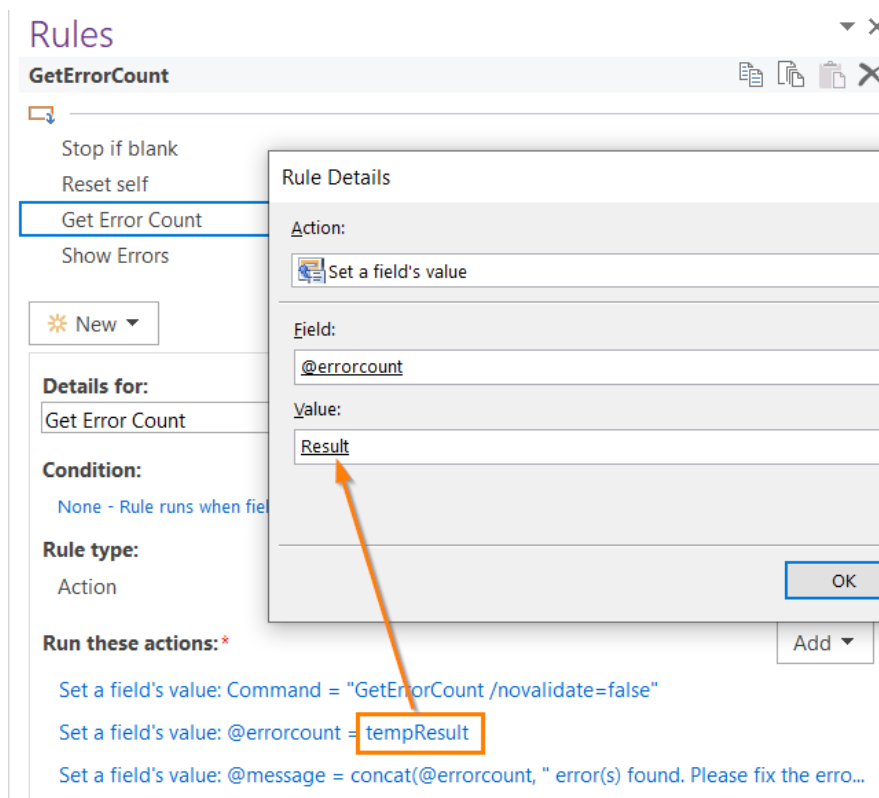
- Repeat the same for Expense Date and Amount fields.

Edit XTP logic to use qRules Commands

- Select the **GetErrorCount** field
/my:ExpenseReport/my:ValidationXTP/my:Validation/my:GetErrorCount
- Select the "Get Error Count" rule and edit the first action to replace the **tempCommand** with the actual qRules **Command** field.



3. In the second action, replace the **tempResult** with the actual qRules **Result** field.



4. Select the **GetErrors** field /my:ExpenseReport/my:ValidationXTP/my:Validation/my:GetErrors.
5. Repeat the same for the "Get Errors" rule – replace the temp placeholder fields and point them to the actual qRules **Command** and **Result** nodes.

Fields

Drag a field to add it to the form.

Fields:

Main

- EndDate
- Items
 - Item
 - ShPid
 - ExpenseDate
 - Category
 - Description
 - MerchantName
 - Files
 - Amount
 - count
 - Edit
- ReportTracking
- ValidationXTP
 - QdabraRulesTemp
 - tempCommand
 - tempResult
 - Validation
 - stop
 - GetErrors**
 - GetErrorCount
 - errorcount
 - message
 - ClearErrors

Rules

GetErrors

Stop if blank

Reset self

Get Errors

New

Details for:

Get Errors

Condition:

None - Rule runs when field changes

Rule type:

Action

Run these actions:

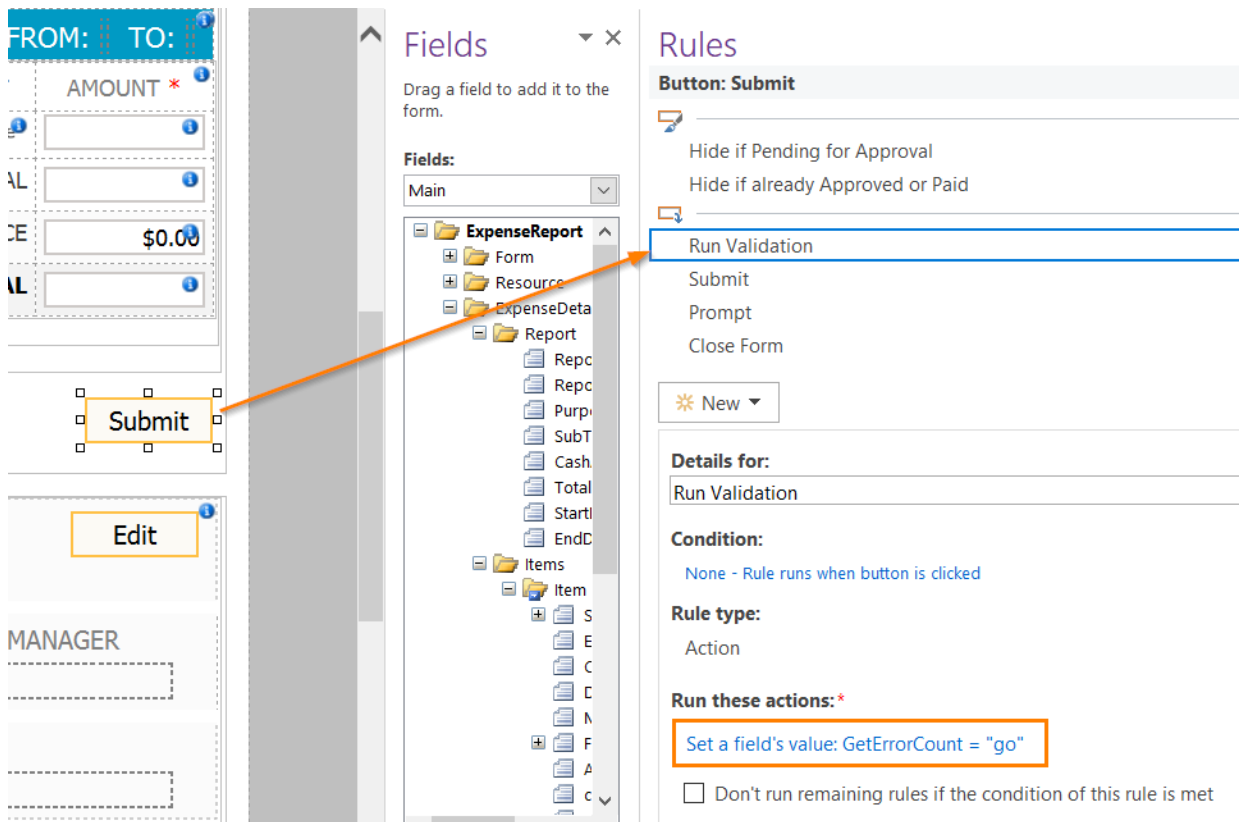
Add

Set a field's value: **Command** = "GetErrors /format=fieldAndMessage /novalidate=false"

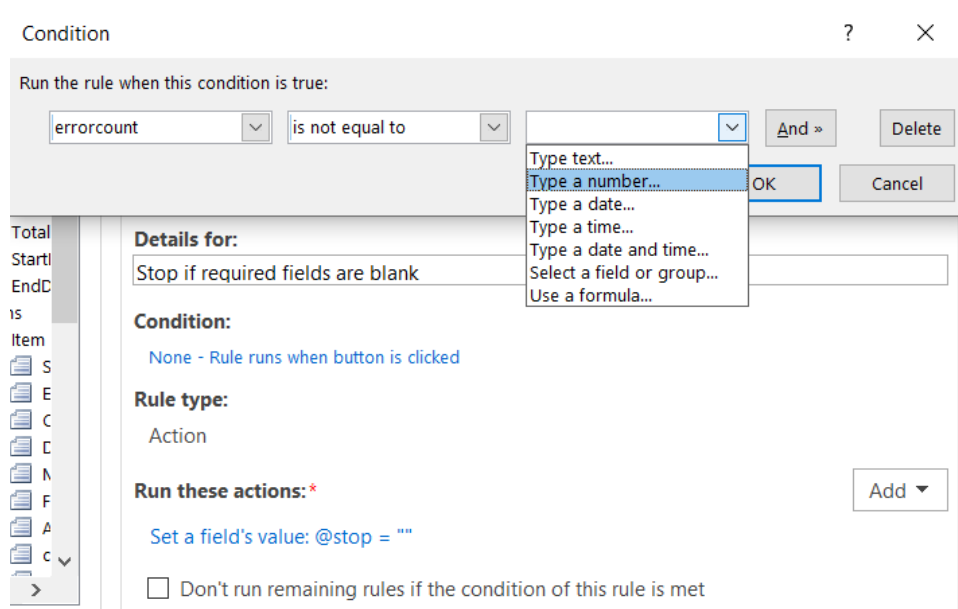
Set a field's value: ErrorMessage = **Result**

☐ Don't run remaining rules if the condition of this rule is met

6. Select the **ClearErrors** field /my:ExpenseReport/my:ValidationXTP/my:Validation/my:ClearErrors and repeat the same process in step 5.
7. The last step is to run these validation rules upon submit. So, click on the Submit button in the view. Add a new action rule at the very top – you may have to move it up if the new rule is inserted between the other rules. Name this rule "Run Validation". Add an action that sets the **GetErrorCount** field in the Validation XTP logic to "go".



8. Add a second rule and name it "Stop if required fields are blank". Set the **stop** field in FormLogic to blank and **check** the box "Don't run remaining rules if the condition of this rule is met". Then, add a condition to run the rule when the **@errorcount** field is not equal to **0** (zero (0) should be entered as number value)



Condition ? X

Run the rule when this condition is true:

errorcount is not equal to 0 And » Delete

OK Cancel

Rules

Button: Submit

- Hide if Pending for Approval
- Hide if already Approved or Paid
- Run Validation
- Stop if required fields are blank**
- Submit
- Prompt
- Close Form

New

Details for:
Stop if required fields are blank

Condition:
errorcount ≠ 0

Rule type:
Action

Run these actions: *

Set a field's value: @stop = ""

☒ Don't run remaining rules if the condition of this rule is met

9. Select the Submit field under FormLogic (/FormLogic/Actions/Submit) and add a new rule called "Clear Errors" after the "Reset self" rule. Add an action to Set a field's value and set the ClearErrors field in the Validation XTP logic to the value **go**.

Fields

Drag a field to add it to the form.

Fields:

FormLogic (Secondary)

- FormLogic
 - stop
 - debug
 - Actions
 - GetInputParameter
 - SetReadOnly
 - SetCurrentUser
 - SetManagersInfo
 - Save
 - Submit
 - ShowMessage
 - GeneratePdf
 - CurrentState

☐ Show details

Rules

Submit

- Stop if blank
- Reset self
- Clear Errors
- Set Form Status
- Set Assignment
- Print no receipt
- Set Report Name
- Set Form Name
- Submit to Expense Report Form Library

New

Details for:

Clear Errors

Condition:

None - Rule runs when field changes

Rule type:

Action

Run these actions:*

Add

Set a field's value: ClearErrors = "go"

☐ Don't run remaining rules if the condition of this rule is met

Purpose (Co

Rule Details

Action:

Set a field's value

Field:

ClearErrors

Value:

go

Fields:

Main

ExpenseReport

Form

Resource

ExpenseDetails

ReportTracking

ValidationXTP

QdabraRulesTemp

Validation

stop

GetErrors

GetErrorCount

ClearErrors

ErrorMessage

10. Save the form changes.

Test the form

Now you're all set! 😊

1. Upload the form in FormsViewer.
2. Click **Open Form** and try the validation logic – make the required fields blank and click submit.
3. In the screenshot below, a count of the error and the error description are displayed on top. The required fields having those errors are highlighted:


Close

EXPENSE REPORT

4 error(s) found. Please fix the errors below.

Please enter a business purpose.

Please select a Category.

Please select a Date for the Expense Item.

Please enter an amount for the Expense Item.

NAME Jo-Anne Tandan	MANAGER Kaoru Okumura	ACCOUNTING MANAGER Kaoru Okumura
REPORT DATE 4/11/2020	BUSINESS PURPOSE* 	

EXPENSE ITEMS
FROM: TO:

CATEGORY *	DATE *	DESCRIPTION	MERCHANT	RECEIPT	AMOUNT *
Select... ▼				Attach file	
SUBTOTAL					\$0.00
LESS CASH ADVANCE					\$0.00
TOTAL					\$0.00

Insert item
Submit

Solution Version: 1.0.1.1468

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- Try to fill each of the fields one by one – the errors will go away as you fill them out and click submit.


Close

EXPENSE REPORT

3 error(s) found. Please fix the errors below.

Please select a Category.

Please select a Date for the Expense Item.

Please enter an amount for the Expense Item.

NAME Jo-Anne Tandaan	MANAGER Kaoru Okumura	ACCOUNTING MANAGER Kaoru Okumura
REPORT DATE 4/11/2020	BUSINESS PURPOSE* Client meeting	

EXPENSE ITEMS
FROM: TO:

CATEGORY *	DATE *	DESCRIPTON	MERCHANT	RECEIPT	AMOUNT *
Select...	📅			Attach file	
				SUBTOTAL	\$0.00
				LESS CASH ADVANCE	\$0.00
				TOTAL	\$0.00

Insert item
Submit

Solution Version: 1.0.1.1468

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Congratulations! 😊 You have successfully added form validations in FormsViewer.

--- End of Day 1 ---

Contact Information

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