Appian
Academy

Appian Step-by-Step #4

Exercise to Accompany
Expressions: Transform Your Data

The Appian Step-by-Step series consists of 12 exercises that accompany the courses in the Appian Developer learning path. Exercises build upon each other. Complete exercises in order and keep the app and all objects until you are done with the project.

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Notice of Rights

Exercise 4: Expressions

In this exercise, you will create two types of Rule objects that you need for your application. Specifically, you will create six constants and one expression rule.

Create Constants

A constant is a literal value that can be called from any expression, and they can be reused across multiple objects throughout your application. In this section, you will create constants that point to the groups and folders you just created. Once you create a constant that points to a group or folder, you will be able to call it from any expression. Follow the steps below to create a constant.

1. From within the **AX Constants** folder, click **New**, and select **Constant** from the dropdown menu.
2. Type **AX_ADMINISTRATORS_POINTER** for the **Name**, and add a description: "A pointer to the AX application administrators group."
3. In the **Type** field, select **Group**.
4. In the **Value** field, type **AX Administrators**, and then click **Create**.
5. In the same manner, create constants for the remaining four groups: **AX All Users, AX Supervisors**, **AX Registrars**, **and AX Maintenance.**
6. Now, you will create a constant that points to the AX Documents folder. Click **New**, and select **Constant** from the dropdown.
7. Name the constant **AX_DOCUMENTS_FOLDER_POINTER**, and provide a description: **"**Points to the AX Documents folder**."**
8. Select **Folder** for the **Type** field, **AX Documents** for the **Value** field, and **AX Constants** for the **Save In** field.
9. Click **Save**.

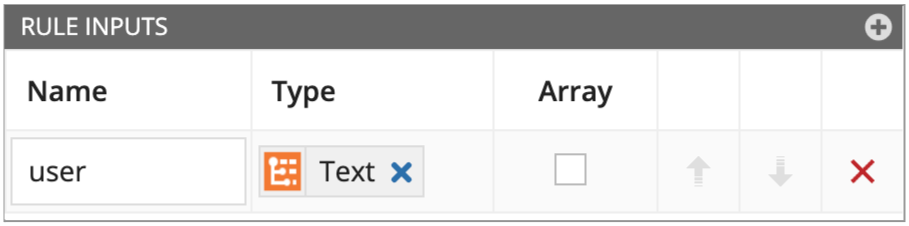
Create Expression Rule

An expression rule is a statement that evaluates to return a v alue. In this section, you will create an expression that will help format a user's name. This expression will be used in a later exercise to help you format the name field correctly. Follow the steps below to create this expression rule.

1. From within the **AX Expressions** folder, click **New**, and select **Expression Rule** from the dropdown menu.
2. Type **AX_DisplayUser** for the **Name**, and add a description: "Formats a user's name for the AX app." Click **Create**.

3. In the **Rule Inputs** pane, click the **plus sign** to add a rule input:

    - **user** (Text)



RULE INPUTS

Name	Type	Array
user	Text	□

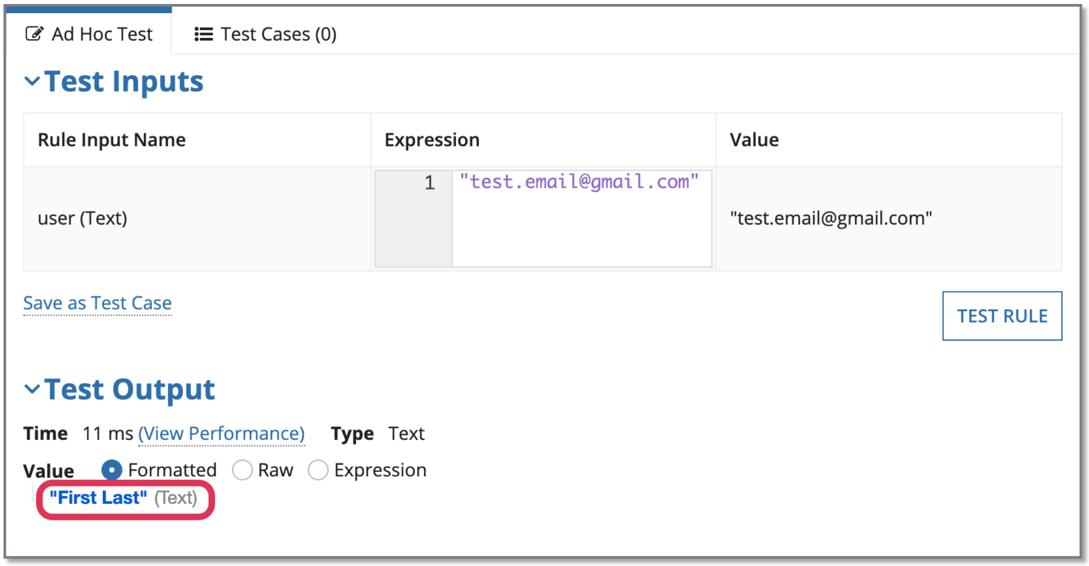
4. Enter the following expression into the **Expression Editor** on the left:

```
proper(
  if(
    isnull(ri!user),
    "",

    isusernametaken(ri!user),
    user(ri!user, "firstName") & " " & user(ri!user,
"lastName"),

    joinarray(split(ri!user, "."), " ")
  )
)
```

This expression first checks whether the user's username is null or not. If the user's username is not null, the expression then checks whether the input is an active user or not. Since the process for formatting users and non-users is different, the last two lines in the expression are both ways to reformat the input as First and Last Name.

5. Click the **Format** icon in the toolbar to automatically format your expression.

6. Click **Save Changes** (or press ctrl/cmd + s). Test this expression by typing your ACE email (wrapped in quotes) in the **Test Inputs Expression** field. Click **Test Rule** to see the formatted name:



Test Inputs

Rule Input Name	Expression	Value
user (Text)	"test.email@gmail.com"	"test.email@gmail.com"

Test Output

Time 11 ms (View Performance) **Type** Text

Value ● Formatted ○ Raw ○ Expression

"First Last" (Text)