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**DATA TRANSFORM**

>> **What is Data** **Transform?**

Data transform is used to copy or manipulate data into a form as required by an application.

The purpose of a data transform is to manipulate data in an application.

It is a rule type belongs to data model.2

Used to convert data from one form to another form.

used to Set, manipulate, copy and populate data in the data pages

It is an example of procedural processing.

>> **What is procedural** **processing?**

Procedural Processing: The rules that are called in order to execute.

>> **What are the types of Data** **Transforms?**

There are two types of data transforms

--->**Standard Data Transform**: To manage the data within the internal pega platform application.

--->**JSON Data Transform (Java Script Object Notation):** Integrate disparate data

for example: web-based data with information provided by internal source.

>> **What are the OOTB data transforms?**

Pega creates 2 OOTB data transform

a. **Py Default** - used to initialize the single value properties when case is created

b. **pySetFieldDefaults** - used to initialize embedded level properties.

Pega calls the Py Default data transform when the case is created, and value is set automatically.

Py Default calls pySetFieldDefaults through "Apply data transform's

from one DT we can call another DT through "Apply data transform options"

>> **what is the use of data transform?**

-->**set** - to initialize the default values in the application when the case is created. Used

e.g.: to display the current date, to set the discount values as soon the case is created. (in shopping apps like Big Billan Days)6

--> **Manipulate** - To manipulate the data into our required desired form.

eg: full name - capture the first name + middle name + last name

username - first name 3 characters, last name - 2 characters + Random 2digit number.

order number - order ID + random 5digit number

--> **Copy** - used to copy data from source property to target property.

eg: selecting the products and adding them to the cart

--> **Populate -** we need to collect details from the user and store the record into the data page.

eg: shipping address is populating the billing address in the purchase application.

>> **What is Superclass in Data transform?**

Data transform superclass-

Combines several data transforms

Set values at multiple level of class hierarchy.

Data transform with same name at multiple levels of the class hierarchy.

|| Identifies the parent class of the current class

|| Identifies the next level parent until the highest parent class is located. (a

**>> where do we call the DT?**

1. **Between the connectors:** Whenever we want to transfer data from source property to target property and in general applications.

2**. flow action (pre-processing, post processing):** Deployment, during production.

3. **from the saveable data page**: When value is not automatically set as in case with autogenerated keys, a saveable data page can use a Data transform as a data source.

4. **Action -** events (the task to be performed)

Event - click, Action -> Run DT

(set, when, append to, otherwise, for loop)

**>> How to configure Data Transform?**

**Dev Studio:**

Create -> Data model -> Data Transform

App -> Data model -> create ->Data Transform

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**Interview questions:**

**>> Can we call activity from DT?**

It is not a best practice to call an activity from Data Transform rule.

You may try the function pxExecuteActivity or similar code, if your use case demands that.

**What are the three basic data transformations?**

1)integration, a step that involves combining data from different sources into a single view;

2)manipulation, where the data is changed or altered to make it more readable and organized;

3)normalization, a process that converts source data into another format to limit the occurrence of duplicated data (To avoid duplicates)

**Data transform actions for Clipboard**

To save time while processing your cases, populate data in your application by using data transforms. When you use data transforms, you can convert data from one format and class to another format and class.

**When you configure a data transform using the Clipboard data model, you select an action that you want to perform on the data. You can select the following actions:**

**Set-**> To assign values to properties. You can set single-value properties, top-level pages, embedded pages, page lists, and page groups. You typically use this action to initialize

properties. If the target pages that you specify do not exist on the clipboard, the Set action creates the pages.

**Remove**-> Deletes the target and any associated values from the clipboard.

**Update Page**-> Sets the context for setting properties on the target page. Use to set properties on a page that is different from the primary page. If the target page does not already exist

on the clipboard, the system creates the page. If the source page is different from the primary page, from the Relation list, select with values from, and then specify the

source page.

**Apply Data Transform**-> Applies another data transform to a clipboard page that the previous action specifies in the current context.

**Sort**--> Creates custom ordered lists. You can sort a page list according to single-value properties in that page list. You can specify a sorting order for each property as either ascending

or descending order. In the Target column, click the View Sorting Properties icon to specify the properties on which to sort and the sorting order for each property.

**Comment**-> Specifies descriptive text. Use this action to provide comments within the sequence. For example, you can explain the goal of a branch of steps.

**When-**> Specifies a condition to evaluate to determine whether to apply the subsequent actions. If the condition evaluates to true, the system applies the action within the child rows. If

the condition evaluates to false; the system continues with the action specified within the next row. If the action in the next row is Otherwise or Otherwise When, the system

applies the action if the condition evaluates to true.

**Otherwise, When**-> Specifies another condition to meet before the system applies an alternate condition. If the condition evaluates to true, the system applies actions within the child rows.

If the condition evaluates to false, the system continues with the action specified within the next row. You can use this action after you use a When or Otherwise When action.

**Otherwise**->Specifies the alternate actions to apply if the preceding When or Otherwise When action evaluates too false. You can only use this action after a When or Otherwise When action.

**Note:** If you add When, Otherwise When, and Otherwise actions to your data transform, the system performs only one of these actions, depending on the first of these actions that evaluate to true.

**Append to**-> We want to copy one page list to another page list both refers to same classes.

**Append and Map to**-> we want to copy one page list to another page list both refers to different classes.

**For Each Page In**-> Iteratively applies actions specified in the subsequent rows to all the pages in the specified target. Ensure that the target is a Page List or a Page Group.

**Exit For Each**-> Exits the current iteration defined by the preceding For Each Page action. You can use this action only as a child row of a For Each Page In action.

**Exit Data Transform**-> Stops the data transform at the row that contains the Exit Data Transform action.

**>> Can we call activity from DT?**

It is not a best practice to call an activity from Data Transform rule.

You may try the function pxExecuteActivity or similar code, if your use case demands that.

We can also call an activity by using pxCallActivity function.

**>> What are the three basic data transformations?**

1)integration, a step that involves combining data from different sources into a single view;

2)manipulation, where the data is changed or altered to make it more readable and organized;

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**>> How to call a Decision table and Decision tree from Data transform rule?**

pxEvaluateDecisionTable and pxEvaluateDecisionTree functions are used to invoke Decision table and Decision tree respectively.

**>> Difference between append and append-map-to?**

Append to: We want to copy one page list to another page list both refers to same classes.

Append and map to: we want to copy one page list to another page list both refers to different classes.

**>> Significance of “Call super class DataTransform” check box?**

This is used to call Parent class data transform. First Parent call data transform will be executed, and then current class data transform rule will be executed.

**>> How to call Data transform rule from an activity rule?**

Apply-DataTransform is the method used to call the data transform rule from the activity.

**>> Can we call child Data transform from Parent DataTransform rule?**

Yes, Apply Datatransform is used to call.

**>> Why is Data Transform rule preferred over Activity (Property-set method)? Explain?**

As activity rules are technical in nature and tough to maintain. So, Data transform rules are preferred over the Activity rules for manipulation of the data.

**>> Can we call Local variables in data transform?**

We can't define Local variables in data transform. only in activity we have an option to use local variables but not in data transform.

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