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**Joget DX**

# Hash Variable

 <http://facebook.com/jogetworkflow>

 <http://twitter.com/jogetworkflow>

# Prerequisites

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- General understanding on how to design an App using the Joget platform (i.e. Process, Form, Datalist, Userview).

# Content

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1. Introduction to Hash Variable
2. List of Hash Variable and Its Usages
3. Nested Hash Variable

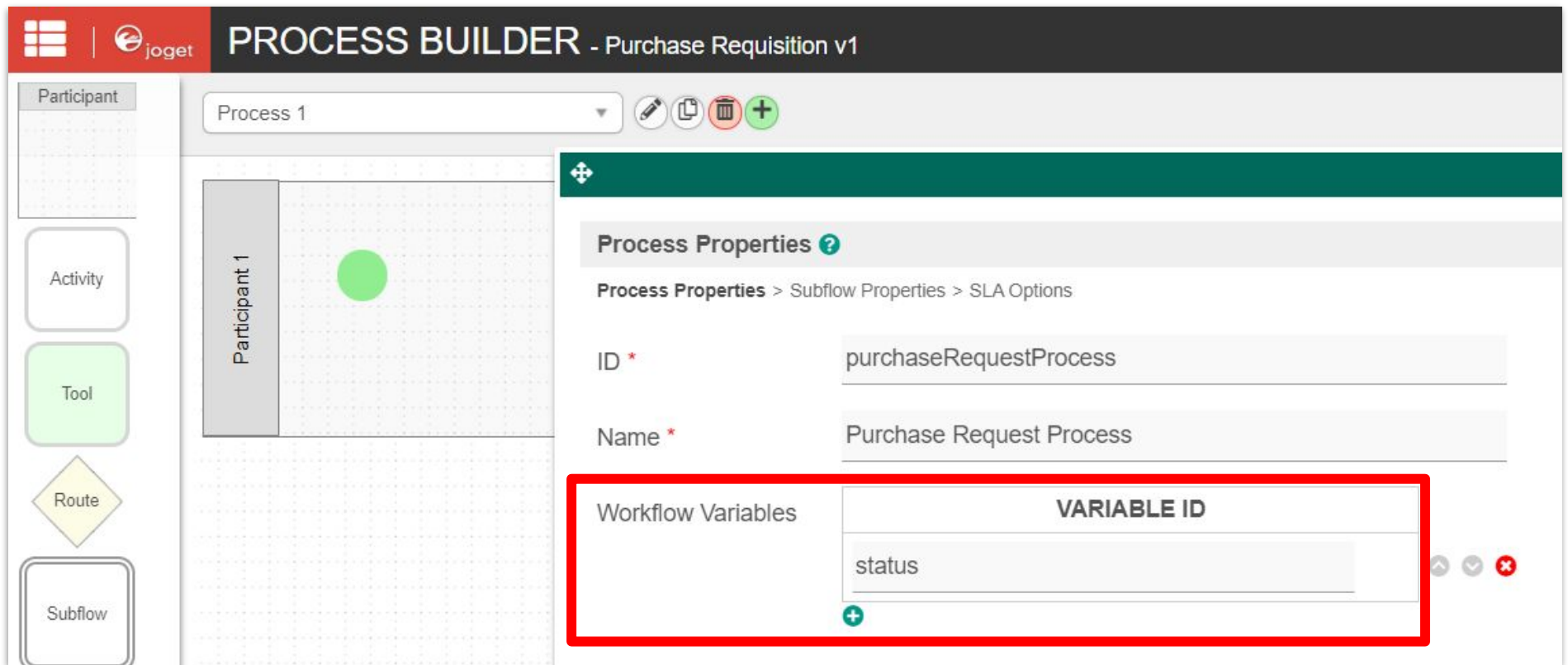


# Chapter 1

## Introduction to Hash Variable

# What Is Hash Variable?

- Hash Variable **is not** Workflow Variable



The screenshot shows the Joget Process Builder interface for a process named "Purchase Requisition v1". The main workspace displays a process diagram with a participant labeled "Participant 1" and a green circle representing an activity. The right-hand panel shows the configuration for "Process Properties" under "Subflow Properties > SLA Options".

The configuration fields are as follows:

- ID \***: purchaseRequestProcess
- Name \***: Purchase Request Process

Below these fields, a section titled "Workflow Variables" is highlighted with a red box. It contains a table with the following data:

Workflow Variables	VARIABLE ID
	status

The "status" variable is currently selected in the input field, and there are navigation icons (up, down, and delete) to its right. A plus sign icon is located below the table to add new variables.

# What Is Hash Variable?

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- Hash Variable is a special **hash-escaped keyword** that can be used in (but NOT limited to)...
  - Form Builder
  - Datalist Builder
  - Userview Builder
  - Supported plugin configuration properties
  - Activity name in Process Builder
  - External Form URL when mapping an activity to an external form

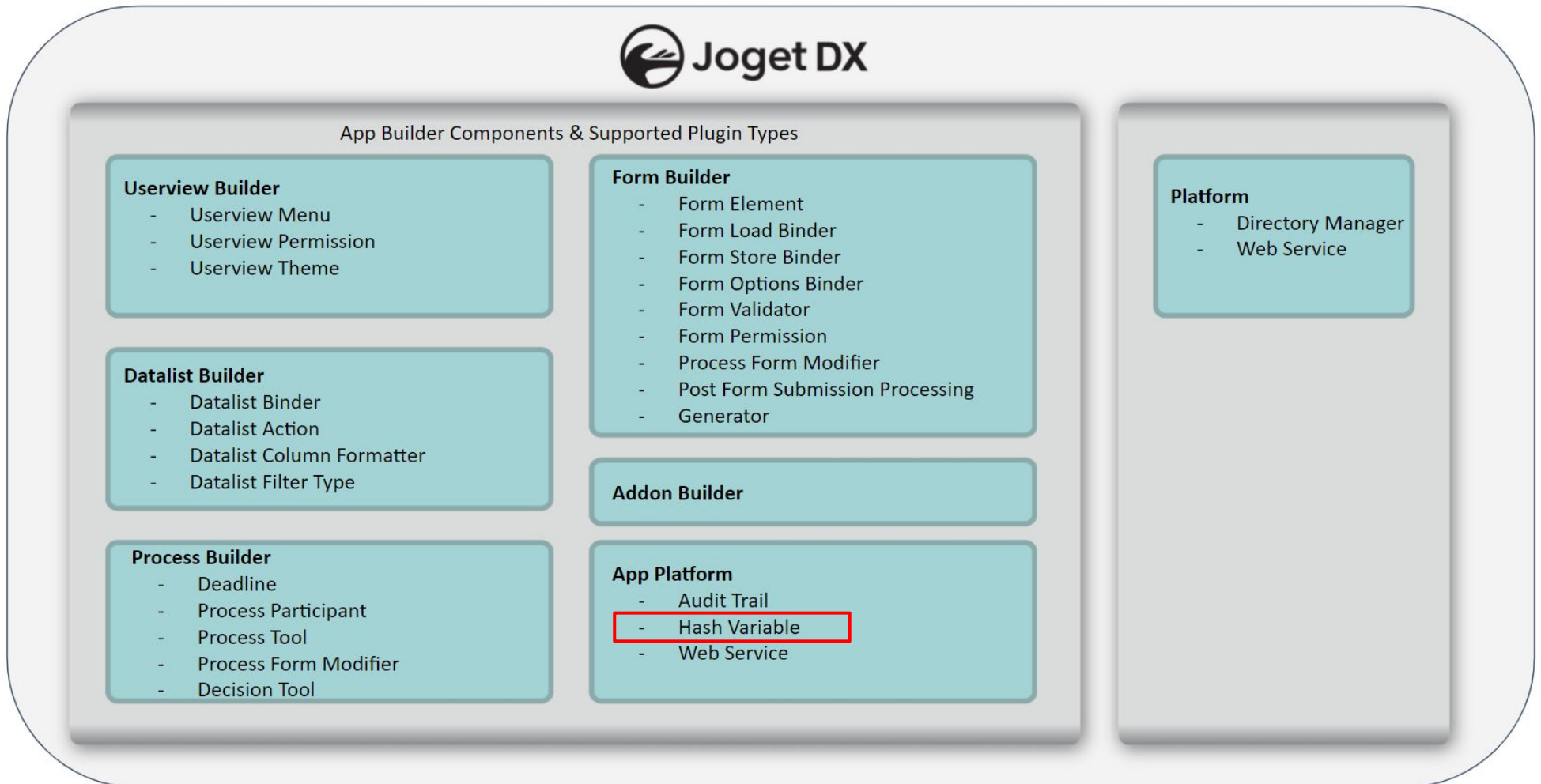
...to return the value of useful runtime variables from the (App) environment.

# Hash Variable

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- Each Hash Variable element has its own **prefix**. E.g.:
  - **#date**.D-MMM-yyyy#
  - **#form**.purchase\_requests.name#
  - **#variable**.status#
  - **#i18n**.smtpServer#
- A new Hash Variable (with its own unique prefix) can be built through Joget plugin architecture.

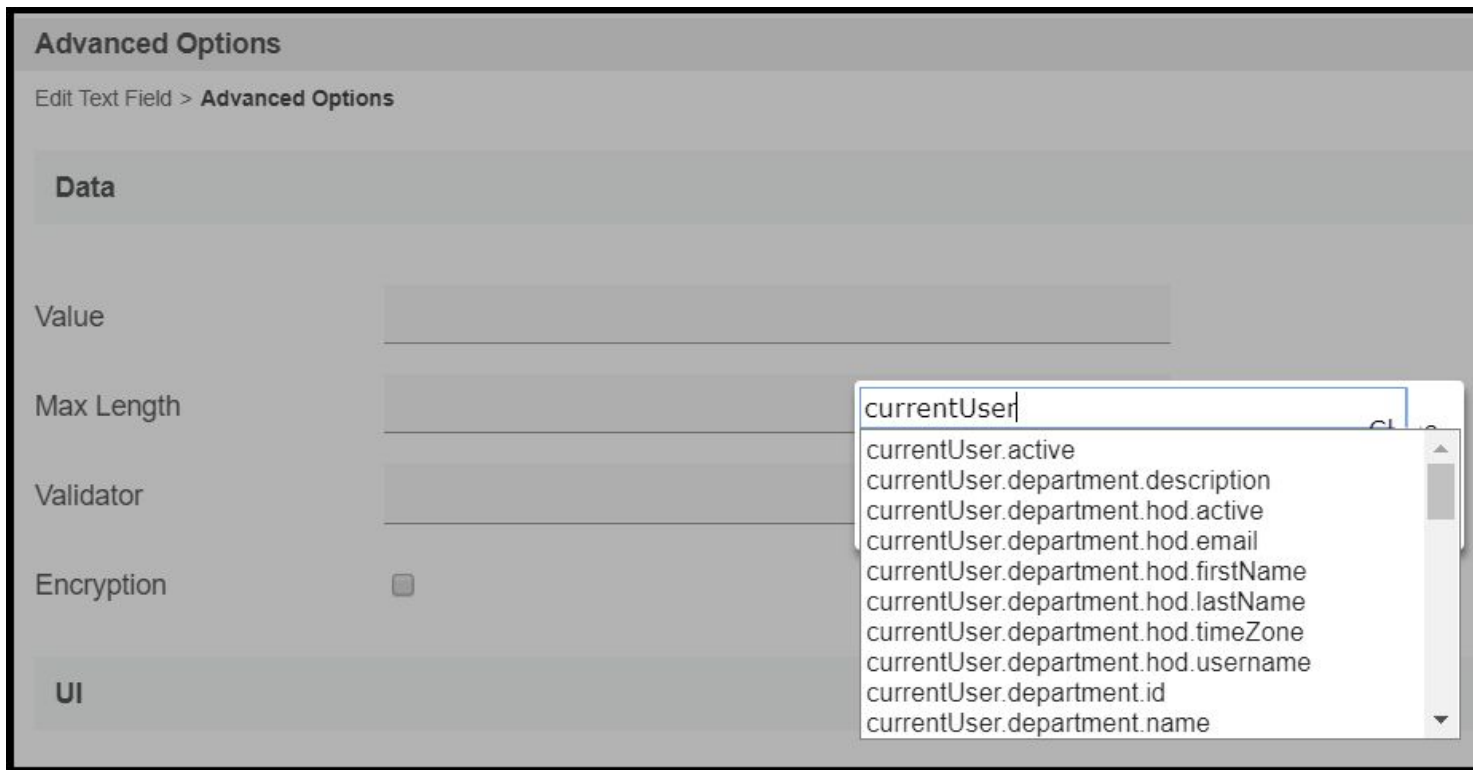
# Plugin Types





# Hash Variable Assistant/Autocomplete

- Use **CTRL+SHIFT+3 ( CTRL + # )** to open up the autocomplete to help you with hash variable.



# Chapter Review

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- Brief understanding on the purpose that Hash Variable serves.



# Chapter 2

## List of Hash Variables & Its Usages

# Sample Use Case

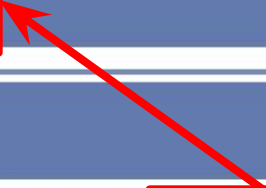
- How to automatically display requestor's full name in a form?

**PURCHASE REQUEST PROCESS - APPROVE / REJECT REQUEST**

**Request Approval for Cat Grant**

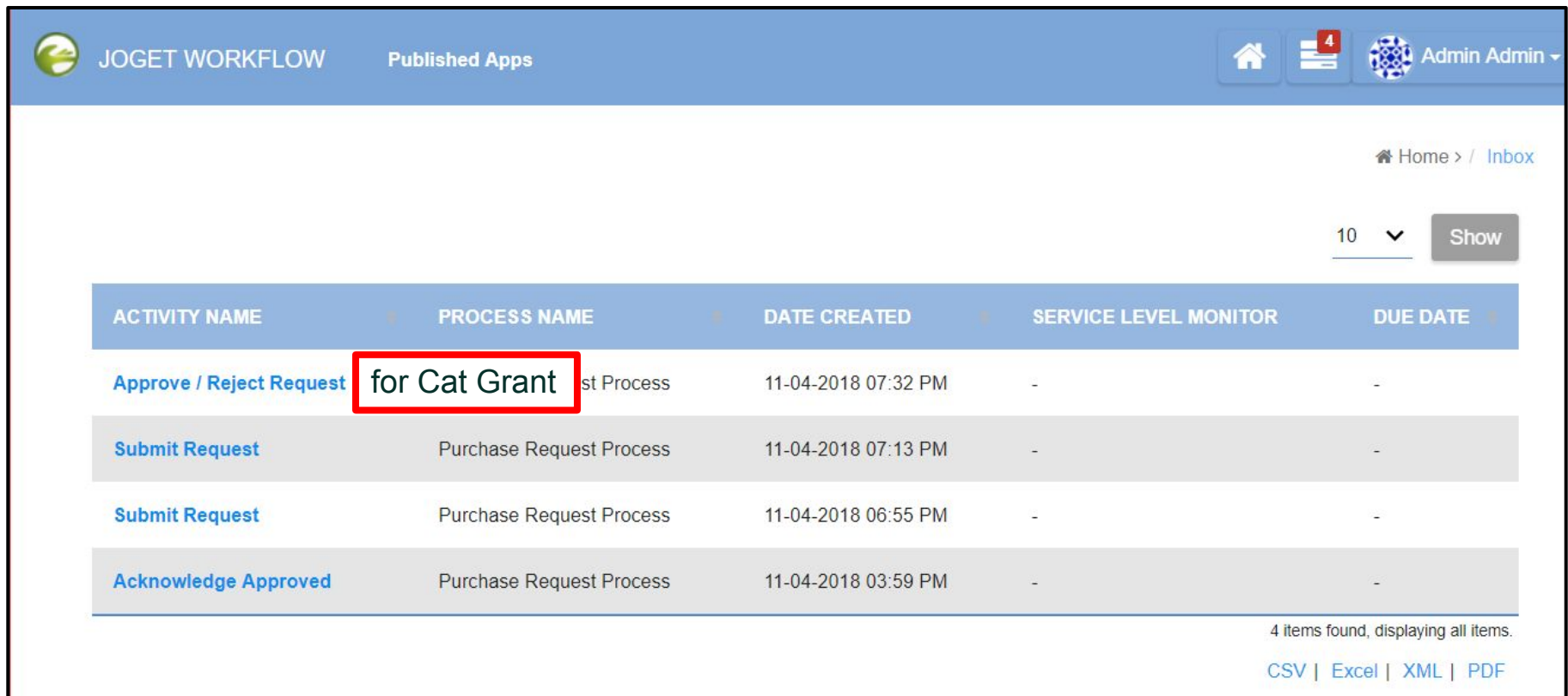
**Request Details**

Name	Cat Grant
Request Date	* 04/20/2018
Category	Stationary



# Sample Use Case

- How to display requestor’s full name in task / activity name instead of just “Approve / Reject Request”?



JOGET WORKFLOW Published Apps Home 4 Admin Admin

Home > / Inbox

10 Show

ACTIVITY NAME	PROCESS NAME	DATE CREATED	SERVICE LEVEL MONITOR	DUE DATE
Approve / Reject Request	for Cat Grant st Process	11-04-2018 07:32 PM	-	-
Submit Request	Purchase Request Process	11-04-2018 07:13 PM	-	-
Submit Request	Purchase Request Process	11-04-2018 06:55 PM	-	-
Acknowledge Approved	Purchase Request Process	11-04-2018 03:59 PM	-	-

4 items found, displaying all items.  
[CSV](#) | [Excel](#) | [XML](#) | [PDF](#)

# List of Hash Variables

- Workflow Assignment Hash Variable
- Workflow Process Hash Variable
- Current User Hash Variable
- Date Hash Variable
- Environment Variable Hash Variable
- Form Data Hash Variable
- Form Binder Hash Variable
- App Definition Hash Variable
- App Message Hash Variable (Internationalization)
- Performer Hash Variable
- Request Parameter Hash Variable
- User Hash Variable
- Userview Key Hash Variable
- Workflow Variable Hash Variable
- Request Hash Variable
- Platform Hash Variable
- Users Hash Variable
- Bean Shell Hash Variable
- Datalist Hash Variable (New in DX)
- Expression Hash Variable (New in DX)

**Reference:** <https://dev.joget.org/community/display/DX7/Hash+Variable>

# Take 10~15 Minutes

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Skim through all the hash variables in our Joget Community - Knowledge Base →

<https://dev.joget.org/community/display/DX7/Hash+Variable>

OR

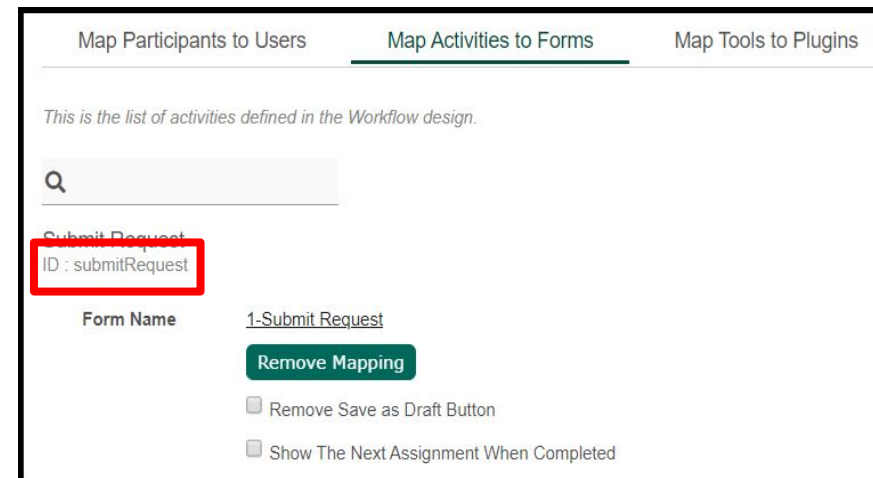
Go through slides 16 to 44 for the essentials.

# Performer Hash Variable

- Performer

- To get user information of the performer of an activity.

- #performer.*activityDefId*.id#,
    - #performer.*activityDefId*.username#,
    - #performer.*activityDefId*.firstName#,
    - #performer.*activityDefId*.lastName#,
    - #performer.*activityDefId*.email#,
    - #performer.*activityDefId*.active#,
    - #performer.*activityDefId*.timeZone#



- Replace “*activityDefId*” with the appropriate activity definition id.

- Reference:

<http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-PerformerHashVariable>



# Using #performer Hash Variable

Map Participants to Users      Map Activities to Forms

*This is the list of activities defined in the Workflow design.*

Q

Submit Request  
ID : submitRequest

Form Name      1-Submit Request

Remove Mapping

Remove Save as Draft Button

Show The Next Assignment When Completed

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Approve / Reject Request  
ID : approveRejectRequest

Form Name      2-Approve / Reject Request

Remove Mapping

Remove Save as Draft Button

Show The Next Assignment When Completed

#performer.submitRequest.username#

# Using #performer Hash Variable In Form Builder

**FORM BUILDER** Purchase Requisition v1: 1-Submit Request (Published)

DESIGN FORM | PROPERTIES | PREVIEW | SAVE

**Basic**

- Hidden Field
- Text Field
- Password Field
- Text Area
- Select Box
- Check Box
- Radio
- Date Picker
- File Upload
- Subform

**Custom**

- Grid

**Request Details** `#performer.runProcess.firstName# #performer.runProcess.lastName#`

Drag This Column

Name

Request Date \*

Category

Items

Name	Quantity
Click to edit	Click to edit

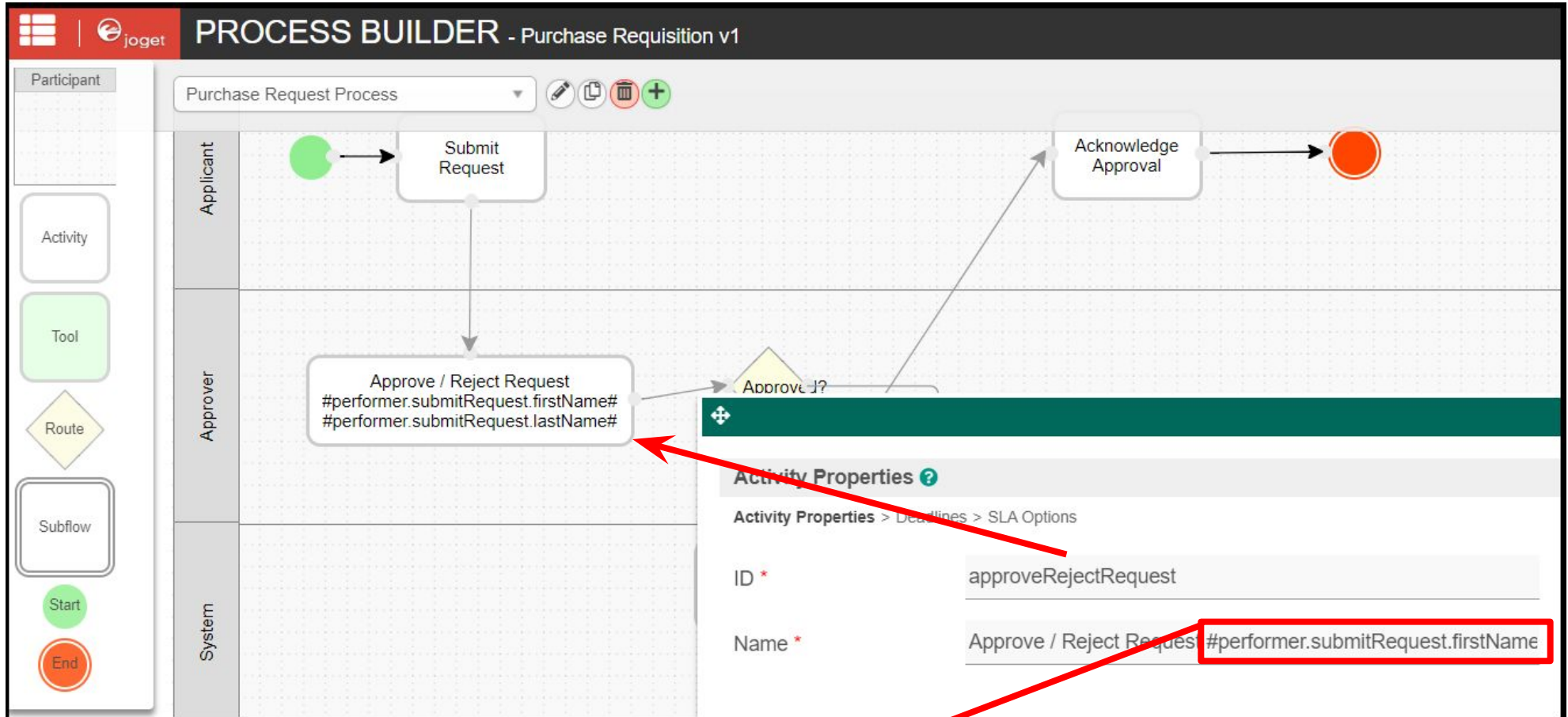
[Add Row](#)

Remarks

CUSTOM HTML

**Hash Variable** can be used in Section Name & Form Element

# Using #performer Hash Variable In Process Builder



The screenshot displays the Joget Process Builder interface for a process titled "Purchase Requisition v1". The process flow is as follows:

- Participant:** Applicant
- Activity:** Submit Request
- Participant:** Approver
- Activity:** Approve / Reject Request (with hash variables: #performer.submitRequest.firstName#, #performer.submitRequest.lastName#)
- Activity:** Approve? (Decision)
- Participant:** Approver
- Activity:** Acknowledge Approval
- Participant:** System
- Activity:** End

The "Approve / Reject Request" activity is selected, and its "Activity Properties" are shown in a panel on the right. The "Name" property is set to "Approve / Reject Request" and the "ID" property is set to "approveRejectRequest". The "Name" property is highlighted with a red box, and a red arrow points from this box to the "Name" property in the "Activity Properties" panel.

Property	Value
ID *	approveRejectRequest
Name *	Approve / Reject Request #performer.submitRequest.firstName#

#performer.submitRequest.firstName#  
#performer.submitRequest.lastName#

# Using #performer Hash Variable In Plugin Configuration

## PLUGIN CONFIGURATION - NOTIFY REJECTED REQUEST (NOTIFYREJECTEDREQUEST)

### Configure Email Tool ?

Configure Email Tool > SMTP Settings > Attachments

To (Specific email address)

#performer.submitRequest.email#

To (Participant ID)

CC

BCC

Subject

Rejected Purchase Request Notification

Message

Dear #performer.submitRequest.firstName# #performer.submitRequest.lastName#  
your purchase request has been rejected

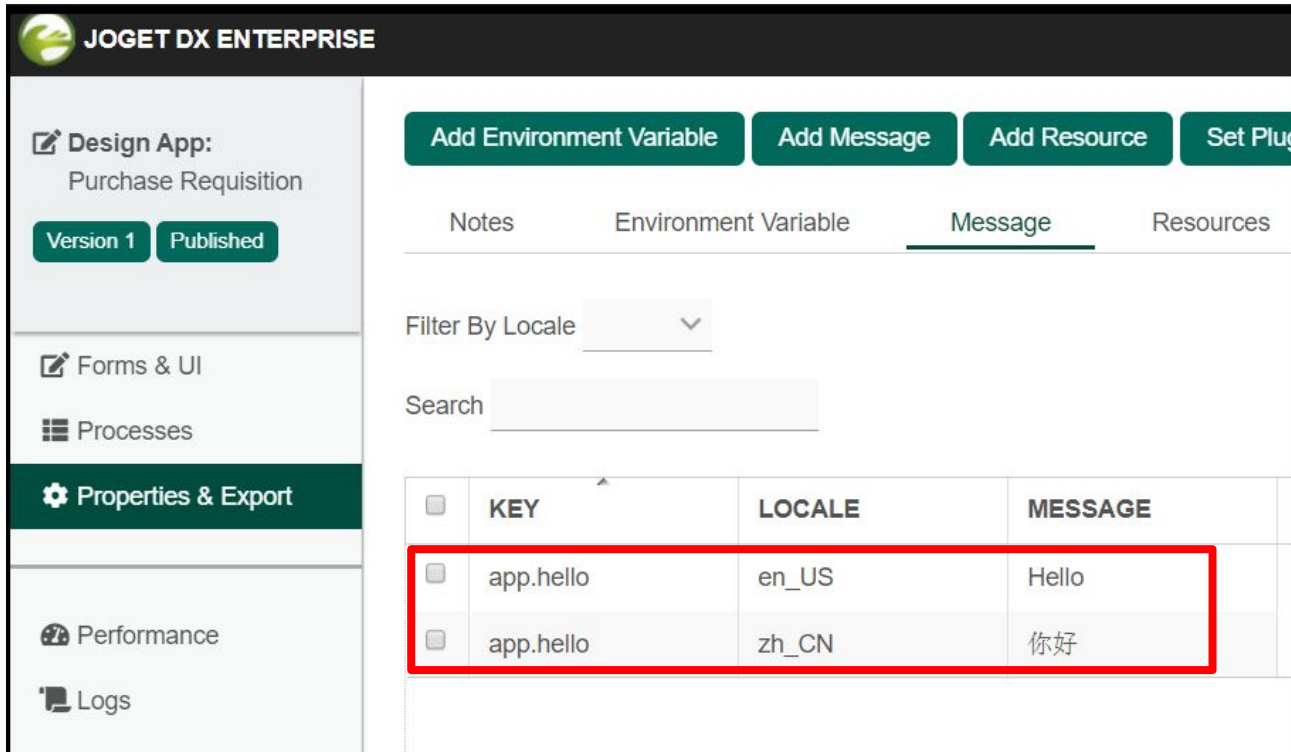
# Internationalization Hash Variable

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- **Internationalization support on application**
  - Support language localization on application level.
    - #i18n.*keyName*#
- Replace “*keyName*” with *the appropriate message key*.
  
- Reference:  
[http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-AppMessageHashVariable\(Internationalization\)](http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-AppMessageHashVariable(Internationalization))

# Using #i18n In Userview Builder

- The #i18n Hash Variable retrieves values from the **Message** set of the App.
- E.g. Message with key **app.hello** in 2 locales.



The screenshot shows the 'JOGET DX ENTERPRISE' interface. On the left is a sidebar with navigation options: Design App (Purchase Requisition, Version 1, Published), Forms & UI, Processes, Properties & Export (selected), Performance, and Logs. The main area has tabs for Notes, Environment Variable, Message (selected), and Resources. There are buttons for 'Add Environment Variable', 'Add Message', 'Add Resource', and 'Set Plug'. Below the tabs, there is a 'Filter By Locale' dropdown and a 'Search' input field. A table displays the message configuration:

<input type="checkbox"/>	KEY	LOCALE	MESSAGE
<input type="checkbox"/>	app.hello	en_US	Hello
<input type="checkbox"/>	app.hello	zh_CN	你好

The two rows in the table are highlighted with a red border, illustrating the same key ('app.hello') used for different locales ('en\_US' and 'zh\_CN').

# Using #i18n In Userview Builder

- With the key defined, the hash variable can be used in the Userview Builder to dynamically show corresponding value depending on the user's locale.

**Purchase Requisition Portal**  
Click to edit

#date.EEE, d MMM yyyy#

**Menu**

🏠 Home

Drop menu item here

Welcome #i18n.app.hello#

**Purchase Requisition**

Drop menu item here

Submit New Request

Inbox

**PURCHASE REQUISITION PORTAL**

Admin Admin  
admin

Welcome Hello

Apps

---

**PURCHASE REQUISITION PORTAL**

Admin Admin  
admin

Welcome 你好

Purchase Requisition

Apps

# Request Parameter Hash Variable

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- Request Parameter
  - For accessing request parameters.
    - #requestParam.*parameterName*#
- Replace “*parameterName*” with the appropriate request parameter name.
  
- Reference:  
<http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-RequestParameterHashVariable>



# Using #requestParam In Form Builder

- Useful to pre-populate form field.

Remarks

`#requestParam.defaultRemarks#`

process\_submitRequest?defaultRemarks=default

**PURCHASE REQUISITION PORTAL**

Home > Purchase Requisition > Submit New Request

## PURCHASE REQUEST PROCESS - SUBM

**Request Details Admin Admin**

Name

Request Date \* MM/DD/YYYY

Category Stationery

**Items**

Name	Quantity	Price
Click to edit	Click to edit	Click to e
<a href="#">Add Row</a>		
Remarks	default	

# Environment Variable Hash Variable

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- **Environment Variable**

- Application level environment variable is typically used to store common or reusable values, such as company contact number.

- #envVariable.*keyName*#

- Replace “*keyName*” with the appropriate Environment Variable name.

- Reference:

- <http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-EnvironmentVariableHashVariable>

# Using #envVariable In Email Tool

- Use Environment Variable on Email Tool to ease maintenance.

[Add Environment Variable](#)
[Add Message](#)
[Add Resource](#)
[Set Plugin Default Properties](#)
[Export](#)

[Notes](#)
[Environment Variable](#)
[Message](#)
[Resources](#)
[Plugin Default Properties](#)

Search

ID	VALUE	REMARKS
smtpPort	465	
smtpServer	smtp.gmail.com	

**SMTP Settings**

Configure Email Tool > SMTP Settings > Attachments

From ?

SMTP Host ?

# Current User Hash Variable

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- **Current User**

- Retrieve currently logged in user's information.

- #currentUser.username#
    - #currentUser.firstName#
    - #currentUser.lastName#
    - #currentUser.fullName#
    - #currentUser.email#
    - and many more...

- Reference:

- <http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-CurrentUserHashVariable>

# Using #currentUser In Form Builder

- Prepopulate applicant's name in Form

The diagram illustrates the process of prepopulating a form field. It consists of two panels. The top panel, titled "Request Details", shows a form field labeled "Name" with the text "#currentUser.firstName# #currentUser.lastName#" entered. A red box highlights this text, and a red arrow points from it to the bottom panel. The bottom panel, also titled "Request Details", shows the same "Name" field now populated with the text "Cat Grant", which is also highlighted with a red box. The text "Drag This Column" is visible above the input field in the top panel.

# User Hash Variable

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- User
  - To get **user information** based on **username**.
    - #user.*username*.username#
    - #user.*username*.firstName#
    - #user.*username*.lastName#
    - #user.*username*.fullName#
    - #user.*username*.email#
    - and many more...
- Replace “*username*” with the appropriate user’s username.
- Reference:  
<http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-UserHashVariable>

# Using #user Hash Variables

- To get user information based on the username.

**Example:**

#user.admin.email#

#user.cat.firstName#

#user.{form.purchase\_requests.username}.firstName#

#user.{form.purchase\_requests.username}.lastName#

This is a **Nested hash variable** where one can include a hash variable inside another hash variable. Subsequent level of hash variable is encapsulated with a pair of **curly bracket**.

# Assignment Hash Variable

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- **Assignment**

- To get **workflow activity information** of the current assignment.

- #assignment.processId#
    - #assignment.processDefId#
    - #assignment.processDefIdWithoutVersion#
    - #assignment.processName#
    - #assignment.processVersion#
    - #assignment.processRequesterId#
    - #assignment.appId#
    - #assignment.activityId#
    - #assignment.activityName#
    - #assignment.activityDefId#
    - #assignment.assignedId#

- Reference:

- <http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-WorkflowAssignmentHashVariable>



# Using #assignment In Form Builder

- Retrieve current assignment information.

**Advanced Options**

Edit Text Area > **Advanced Options**

---

**Data**

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Value

```
#assignment.processId#
#assignment.processDefId#
#assignment.processDefIdWithoutVersion#
#assignment.processName#
#assignment.processVersion#
#assignment.processRequesterId#
#assignment.appld#
#assignment.activityId#
#assignment.activityName#
#assignment.activityDefId#
#assignment.assigneed#
```

Admin Admin

\* MM/DD/YYYY

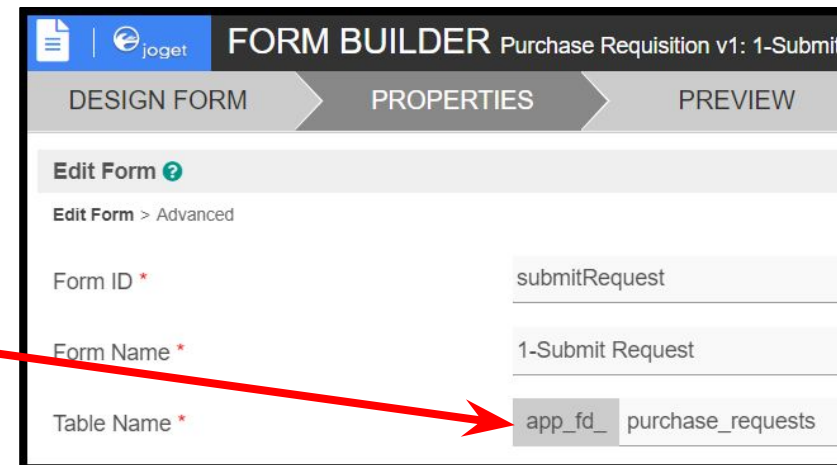
Stationery

Quantity	Price
Click to edit	Click to

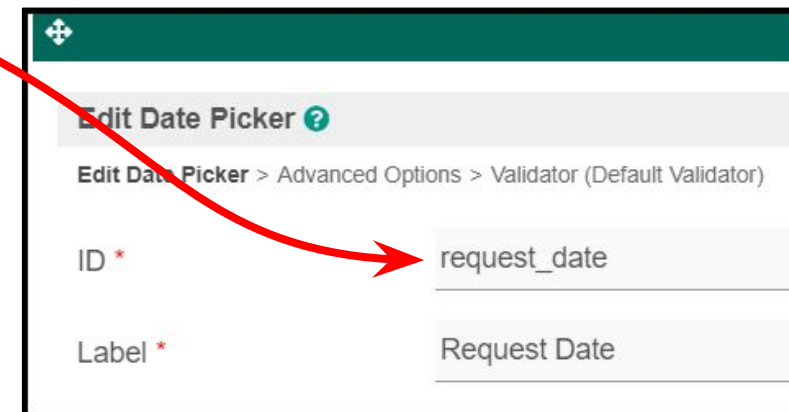
```
286_purchaseRequisition_purchaseRequestProcess
purchaseRequisition#4#purchaseRequestProcess
purchaseRequestProcess
Purchase Request Process
4
admin
purchaseRequisition
1136_286_purchaseRequisition_purchaseRequestProcess_submitRequest
Submit Request
submitRequest
admin
```

# Form Data Hash Variable

- **Form**
  - To get **data from form table**.
  - `#form.formDataTableName.fieldId#`
- Replace “*formDataTableName*” and “*fieldId*” with the appropriate table name and field id.
- `#form.purchase_requests.request_date#`



The screenshot shows the 'Edit Form' interface in Joget. The 'Table Name' field is highlighted with a red arrow pointing to the text 'app\_fd\_ purchase\_requests'.



The screenshot shows the 'Edit Date Picker' interface in Joget. The 'ID' field is highlighted with a red arrow pointing to the text 'request\_date'.

- Reference:  
<http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-FormDataHashVariable>

# Using #form In Email Tool / Plugin Configuration

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Format: #form.*formDataTableName*.*fieldId*#

- Examples:
  - #form.purchase\_requests.name#
  - #form.purchase\_requests.request\_date#
  - #form.purchase\_requests.approval[0001]#
    - To retrieve the field value by specifying a specific record primary key value, 0001.
  - **#form.purchase\_requests.approval[{variable.recordId}]#**  
//using **nested Hash Variable** with curly bracket.
    - To achieve the same result like the previous point but by making reference to another Hash Variable for its record primary key value.

# Using #form In Email Tool / Plugin Configuration

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CC	
BCC	
Subject	Rejected Purchase Request Notification
Message	Dear #performer.submitRequest.username# your purchase request has been rejected: - Items requested: #form.purchase_requests.items#

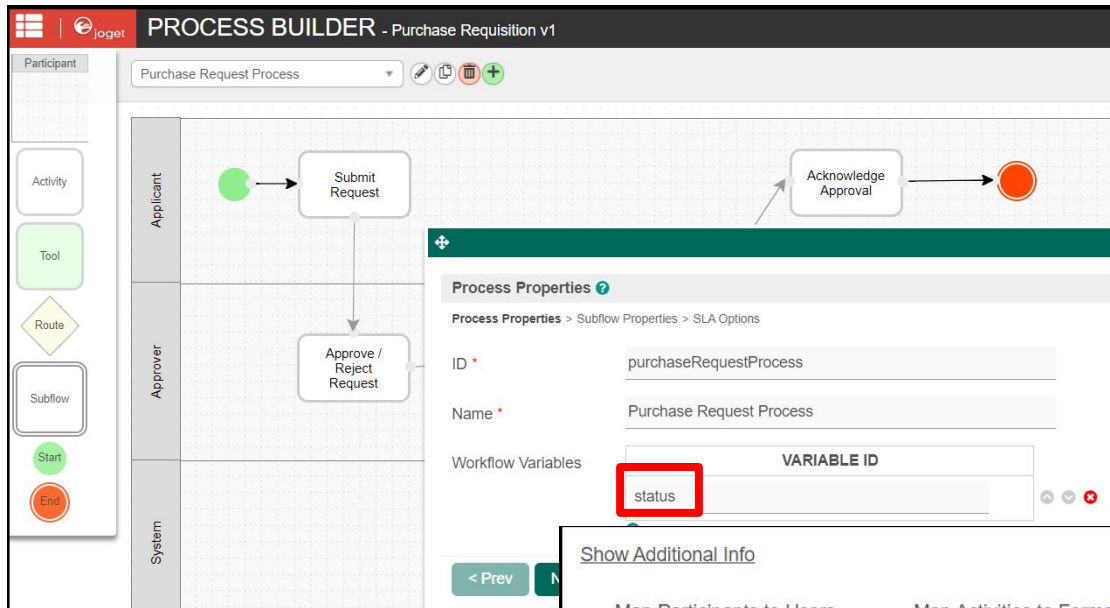
# Workflow Variable Hash Variable

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- **Workflow Variable**
  - To get the **value of a workflow variable**.
    - `#variable.variableName#`
- Replace “*variableName*” with the appropriate workflow variable name.
  
- Reference:  
<http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-WorkflowVariableHashVariable>

# Using #variable Hash Variable

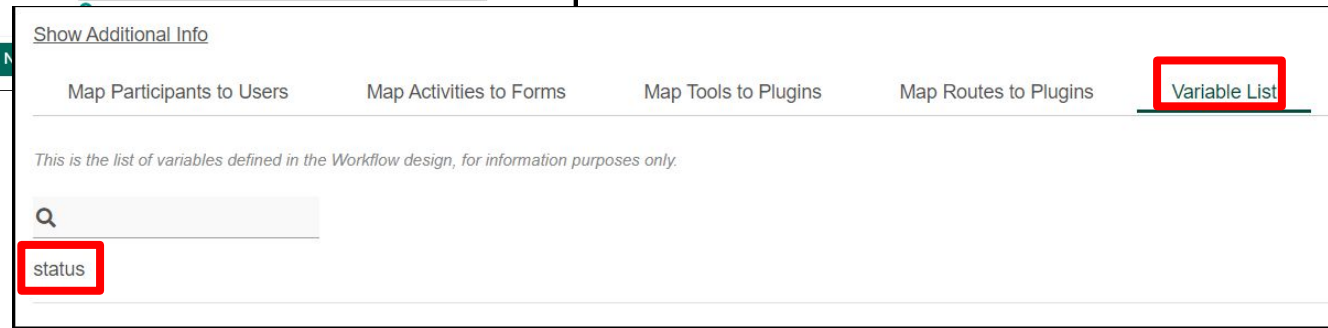
- To get the value of a workflow variable.



The screenshot shows the Joget Process Builder interface for a workflow titled "Purchase Requisition v1". The workflow is designed with three participants: Applicant, Approver, and System. The process starts with a green circle (Start) leading to a "Submit Request" activity (Applicant). This activity leads to an "Approve / Reject Request" activity (Approver), which then leads to an "Acknowledge Approval" activity (System). The "Acknowledge Approval" activity ends with a red circle (End).

The "Process Properties" panel is open, showing the following details:

- Process Properties > Subflow Properties > SLA Options
- ID: purchaseRequestProcess
- Name: Purchase Request Process
- Workflow Variables: A table with a header "VARIABLE ID" and one entry "status" (highlighted with a red box).



The "Variable List" section is shown, which provides information about the variables defined in the workflow design. It includes a search bar and a list of variables.

Map Participants to Users    Map Activities to Forms    Map Tools to Plugins    Map Routes to Plugins    **Variable List**

*This is the list of variables defined in the Workflow design, for information purposes only.*

Q

**status**

**Example: #variable.status#**

# Date Hash Variable

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- **Date**
  - To **get date time** according to a specified format.
    - `#date.dateFormat#`
    - `#date.[DAY/MONTH/YEAR][+/-]IntegerValue.dateFormat#`
  - Examples:
    - `#date.h:mm a#` will produce  
**12:08 PM**
    - `#date.EEE, d MMM yyyy h:mm:ss a#` will produce  
**Wed, 4 Jul 2009 12:08:56 PM**
- Replace “*dateFormat*” with the appropriate keyword documented in **SimpleDateFormat** class  
<https://docs.oracle.com/javase/8/docs/api/java/text/SimpleDateFormat.html>
- Reference:  
<http://dev.joget.org/community/display/DX7/Hash+Variable#HashVariable-DateHashVariable>

# Using #date Hash Variables

- Source: <https://docs.oracle.com/javase/8/docs/api/java/text/SimpleDateFormat.html>

Letter	Date or Time Component	Presentation	Examples
G	Era designator	Text	AD
y	Year	Year	1996; 96
Y	Week year	Year	2009; 09
M	Month in year (context sensitive)	Month	July; Jul; 07
L	Month in year (standalone form)	Month	July; Jul; 07
w	Week in year	Number	27
W	Week in month	Number	2
D	Day in year	Number	189
d	Day in month	Number	10
F	Day of week in month	Number	2
E	Day name in week	Text	Tuesday; Tue
u	Day number of week (1 = Monday, ..., 7 = Sunday)	Number	1
a	Am/pm marker	Text	PM
H	Hour in day (0-23)	Number	0
k	Hour in day (1-24)	Number	24
K	Hour in am/pm (0-11)	Number	0
h	Hour in am/pm (1-12)	Number	12
m	Minute in hour	Number	30
s	Second in minute	Number	55
S	Millisecond	Number	978
z	Time zone	General time zone	Pacific Standard Time; PST; GMT-08:00
Z	Time zone	RFC 822 time zone	-0800
X	Time zone	ISO 8601 time zone	-08; -0800; -08:00



# Using #date Hash Variables

- Example: #date.EEE, d MMM yyyy h:mm:ss a#

Java SimpleDateFormat

- Sample Output: **Mon, 28 Dec 2019 11:27:26 AM**

# Using #date Hash Variables

- Example: #date.DAY+7.EEE, d MMM yyyy h:mm:ss a#



- Sample Output: **Mon, 4 Jan 2020 11:27:26 AM**

# Using #date Hash Variables

- Example: #date.MONTH-2.EEE, d MMM yyyy h:mm:ss a#



- Sample Output: **Wed, 28 Oct 2019 11:27:26 AM**

# Using #date Hash Variables

- Example: #date.YEAR+1.EEE, d MMM yyyy h:mm:ss a#



- Sample Output: **Tue, 28 Dec 2020 11:27:26 AM**

# Chapter Review

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- Appreciate the flexibility and convenience brought by the Hash Variable.
- Able to apply the Hash Variable feature into app development.



# Chapter 3

## Nested Hash Variable

# Nested Hash Variable

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- **Hash Variable** can be used inside another **Hash Variable** to form a **Nested Hash Variable**.
- The syntax for the inner and subsequent Hash Variables is wrapped by a pair of curly bracket '{' and '}' instead of the usual pair of #.
- Example: **#prefix.{prefix.variableKey}#**
- There is **no** limit to the depth of the nested variable.

# Example of Nested Hash Variable

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- `#date.{envVariable.dateFormat}#`
- `#user.{variable.username}.fullName#`
- `#form.tableChild.field[{form.tableParent.childId}]#`



# Chapter Review

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- Appreciate the flexibility and convenience brought by the Hash Variable.
- Able to apply the Hash Variable feature into application development.

# Exercise 1

In “Submit Request” form, pre-populate the applicant’s name using hash variable.

**PURCHASE REQUEST PROCESS - SUBMIT REQUEST**

Request Details

Name	Admin Admin
Request Date	* MM/DD/YYYY
Category	Stationery

Items

Name	Quantity
Click to edit	Click to edit

[Add Row](#)

Remarks

## Exercise 2

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In “**Notify Rejected Request**” Email Tool, compose the message as the following using hash variable.

Go through the process flow to send out the test email.

Dear **[applicant name]**,

Your request has been **[status]** due to the following reason:-

**[rejected reason]**

Thank you.

# Exercise 3

In Inbox, instead of just showing “Approve / Reject Request”, include the applicant’s name to the example as follow:-

ACTIVITY NAME	PROCESS NAME	DATE CREATED
Approve / Reject Request Cat Grant	Purchase Request Process	19-12-2019 07:09 AM
Submit Request	Purchase Request Process	19-12-2019 07:06 AM
Submit Request	Purchase Request Process	19-12-2019 07:05 AM
Submit Request	Purchase Request Process	19-12-2019 06:24 AM

## Exercise 4

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Create a new request list that will only show requests that are submitted by the *current logged in user*.

- Create a new Datalist
  - Add filter criteria in “Extra Filter Condition”.
    - E.g. ( **c\_name = 'Cat Grant'** )
    - Replace 'Cat Grant' with the appropriate Hash Variable
- Add the created list into the existing Userview

Reference:

<http://dev.joget.org/community/display/DX7/Form+Data+Binder>

# Exercise 5 - Optional

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Make use of Environment Variable to store commonly used settings or attributes

- e.g. Branding in (more than one) form/page.

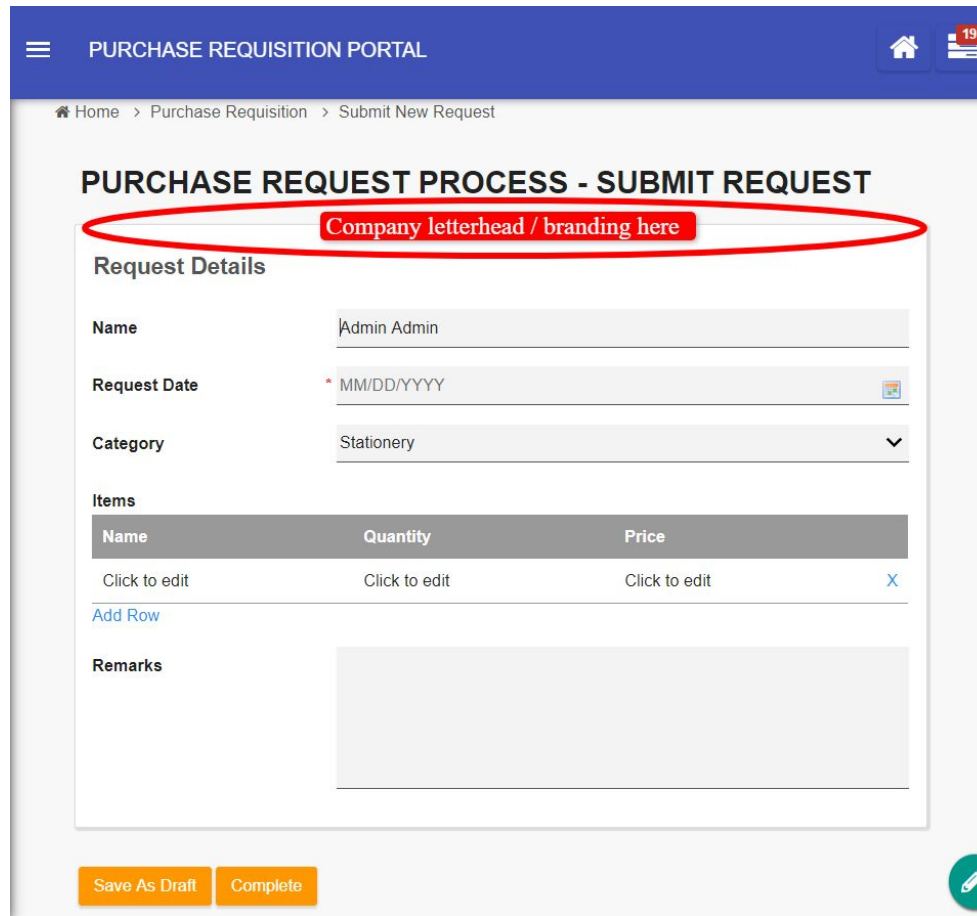
Then, display this environment variable value where applicable in your app.

Reference:

<http://dev.joget.org/community/display/DX7/Environment+Variable>

# Exercise 5 - Optional

Branding in (more than one) form/page.



The screenshot shows a web application interface for a 'PURCHASE REQUISITION PORTAL'. The page title is 'PURCHASE REQUEST PROCESS - SUBMIT REQUEST'. A red oval highlights a red box containing the text 'Company letterhead / branding here'. Below this, the form is divided into sections: 'Request Details' and 'Items'. The 'Request Details' section includes fields for 'Name' (Admin Admin), 'Request Date' (MM/DD/YYYY), and 'Category' (Stationery). The 'Items' section is a table with columns for 'Name', 'Quantity', and 'Price', each with a 'Click to edit' link. Below the table is an 'Add Row' link and a 'Remarks' text area. At the bottom, there are 'Save As Draft' and 'Complete' buttons, and a green pencil icon.

**PURCHASE REQUEST PROCESS - SUBMIT REQUEST**

Company letterhead / branding here

**Request Details**

Name: Admin Admin

Request Date: MM/DD/YYYY

Category: Stationery

**Items**

Name	Quantity	Price
Click to edit	Click to edit	Click to edit

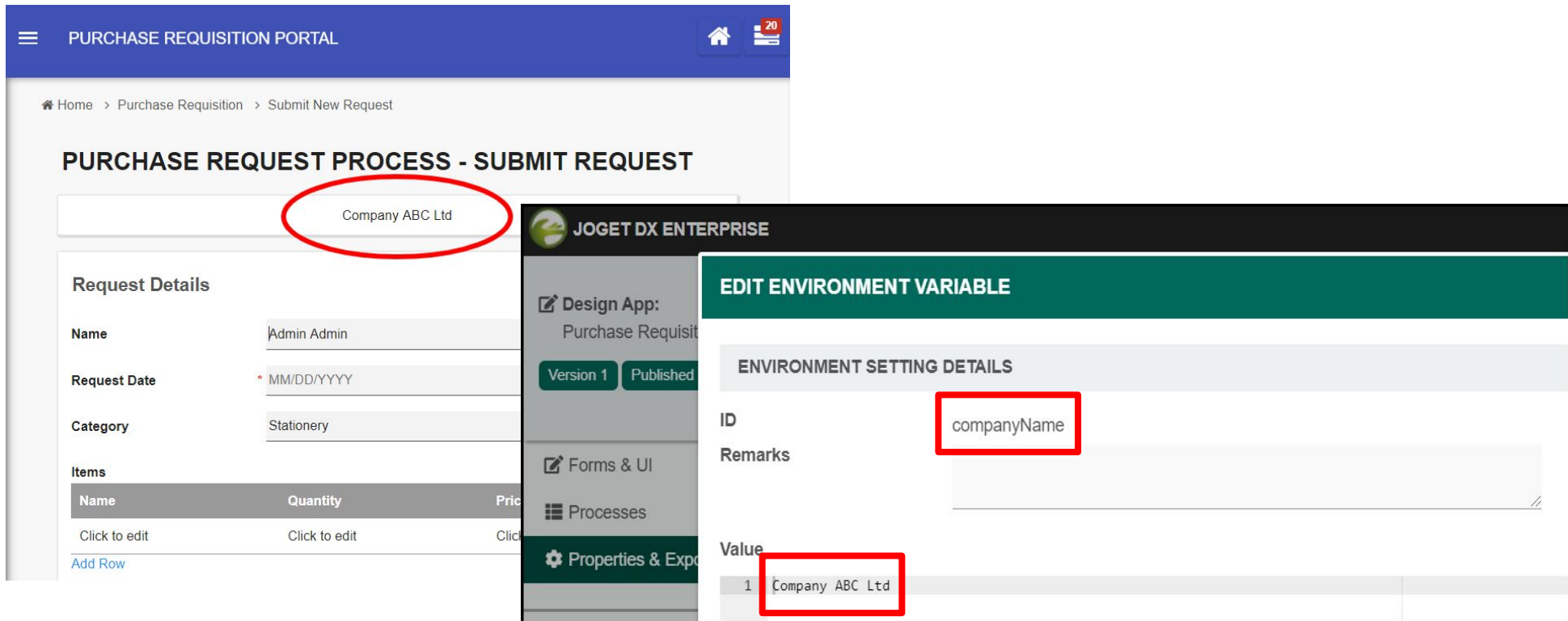
[Add Row](#)

Remarks

Save As Draft Complete

# Exercise 5 - Optional

Branding in (more than one) form/page.



The image shows two overlapping screenshots from a Joget DX Enterprise application. The background screenshot is a 'PURCHASE REQUISITION PORTAL' page titled 'PURCHASE REQUEST PROCESS - SUBMIT REQUEST'. It features a breadcrumb trail: Home > Purchase Requisition > Submit New Request. A text input field at the top contains 'Company ABC Ltd', which is circled in red. Below this is a 'Request Details' form with fields for Name (Admin Admin), Request Date (MM/DD/YYYY), and Category (Stationery). An 'Items' table is partially visible with columns for Name, Quantity, and Price. The foreground screenshot is a 'JOGET DX ENTERPRISE' 'EDIT ENVIRONMENT VARIABLE' dialog. It shows 'ENVIRONMENT SETTING DETAILS' with an ID field containing 'companyName' (circled in red) and a Value field containing 'Company ABC Ltd' (circled in red). A sidebar on the left of the dialog lists design elements like 'Design App: Purchase Requisition', 'Forms & UI', and 'Properties & Exports'.

In the form design, drag in a **Custom HTML form element**, use hash variable to obtain the environment variable value.



# Exercise 6 - Optional

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Retrieve the total count of records from a specific datalist.

**Hint:** This is a new feature in Joget DX. Do refer to KB!

# Discussion

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- When will the hash variables be parsed?
- Can end user write hash variable when submitting form?
- Can we develop a new hash variable plugin?
- Can we have redundant hash variable prefix?  
(e.g.: another hash variable plugin with the same prefix as currently available ones)

# Module Review

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1. Introduction to Hash Variable
2. List of Hash Variable and Its Usages
3. Nested Hash Variable

# Stay Connected With Joget

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