## **Prototyping and Production Cycles**

In order to log on with different users, instead of doing it always with the administrator user, we must first modify Workflow's execution mode in GeneXus.

In the Preferences window, in the Environment properties, we go to Workflow, and in ExecutionMode we change **Prototyper** to **StandardClient**.

H Preferences	<b>7</b>	×	
∨ 🎲 GXBPMSuiteCourse			
GXBPMSuiteCourse			
🗸 🐉 . Net Environme	ent		
> 📊 Generators			
> 📴 DataStores			
GeneXus Cloud			
> Patterns			
🗸 🌄 Workflow			
🖧 Roles			
Documents			
🔚 Calendars			
🖓 Notification temp	lates		
✓ Workflow			
Business processes name	space		GXBPMSuiteCour
Execution mode			StandardClient
Workflow generator			Default (C# Web)
Deploy business processe	s on build		Yes
Create new versions of bu	isiness processes o	n deploy	Yes

If we execute the FlightTicketReservation diagram we will see that the workflow client opens a dialog box. In this case we will log on with user Peter Kent.

Gen G	<sup>iexus⁻</sup> Xflow™
Role	~
User or email	
PKENT	]
Password	
[	)
	Forgot your password?
	SIGN IN

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We'll see that user Peter Kent appears as logged on and the access to activities on the Browser has been reduced because this user holds fewer permits than the administrator.

Note that the incoming tray is empty.

<b>GX</b> flow <sup>™</sup>			PETER KENT
Desktop ^ home inbox outbox	Inbox	NEW	٩
my processes my documents my performance	! 🐠 🖉 🔌 🗬 Subject ु 🕈	Activity	State Created

Now let's press the New button to initiate a process. We can see that a dialog box is opened with the FlightTicketReservation process as the only process available for selection.

NEW PROCESS	<	
Select Process/Task:		
(1) (AZ) Search		
Flight Ticket Reservation	New Process	×
	ALPHABETIC V	]
	Select Process/Task:	
	🖻 🛧 Processes	
	FlightTicketReservation	
	Subject (Optional):	1
Subject		J
OK CANCEL	CANCEL	START

We must remember that we assigned to this user the TravelAgencyEmployee role, authorizing the user to initiate the FlightTicketReservation process. So we select it and press OK.

We can see that the incoming tray shows the TicketReservation task as pending, which could also be executed by the TravelAgencyEmployee role which corresponds to user Peter Kent.

<b>GX</b> flow <sup>™</sup>			
Desktop home inbox	^	Inbox	NEW Q
outbox my processes my documents my performance		!	Activity         State         Created           Ticket Reservation              • ready             03/17/23 07:28 AM             EXECUTE               SEND            I                /////               ////

Let's execute the task and enter the reservation... As we complete the task we can see that the instances of the ContactAirlines task appear as pending, since this user also holds a permit to execute them.

STORY	PREVIEW	DELEGATE COLLABORATE	MORE ACTIONS +	NEW	
٥	Ø	Subject	Activity	State Created	
		Flight Ticket Reservation	Contact airlines	• ready 03/17/23 07:44 AM EXECUTE	SEND
		Flight Ticket Reservation	Contact airlines	• ready 03/17/23 07:44 AM EXECUTE	SEND
		Flight Ticket Reservation	Contact airlines	• ready 03/17/23 07:44 AM EXECUTE	SEND
		Flight Ticket Reservation	Contact airlines	• ready) 03/17/23 07:44 AM EXECUTE	SEND

We execute them, ... and complete ...

Now the **Add customer information required for travelling** task is the only one appearing as pending.

ISTORY	<u> </u>	PREVIEW		DELEGATE	MORE ACTIONS +	NEW	Q
: ə	•	Ø	*	Subject	Activity	State Created	
		P		Flight Ticket Reservation	Add customer information required for traveling	• ready 03/17/23 0	7:52 AM EXECUTE SEND
0 0	10						K < >

If we look at the diagram we will see that the **EvaluateCustomer** task is also being executed but we defined this task with the TravelAgencyManager role, so user Peter Kent will not be able to execute it, and so it does not appear as pending in the incoming tray.



Let's execute this task and we will see that the incoming tray is now empty. If we go to the outgoing tray we will see all the tasks that were executed by this user.

						٩	
ı	٥	Subject	Activity	State	Created	Ended	
		Flight Ticket Reservation	Add customer information required for traveling	( completed	03/17/23 07:52 AM	03/17/23 08:06 AM	VIEW HISTORY
		Flight Ticket Reservation	Contact airlines	( completed	03/17/23 07:44 AM	03/17/23 07:44 AM	VIEW HISTORY
		Flight Ticket Reservation	Contact airlines	( completed	03/17/23 07:44 AM	03/17/23 07:52 AM	VIEW HISTORY
		Flight Ticket Reservation	Contact airlines	completed	03/17/23 07:44 AM	03/17/23 07:52 AM	VIEW HISTORY
		Flight Ticket Reservation	Contact airlines	( completed	03/17/23 07:44 AM	03/17/23 07:52 AM	VIEW HISTORY
		Flight Ticket Reservation	Ticket Reservation	completed	03/17/23 07:28 AM	03/17/23 07:44 AM	VIEW HISTORY

If we select the **Add customer information required for travelling** task and press History, we will view the history of the process, the user who executed each task and the candidates that may execute the following tasks.

Page<sup>4</sup>

History	bry						×
					<u>ସ</u> ା		
0	Activity	State	e User Created Ended				
	Gateway	in process	Workflow Engine	03/17/23 08:06 AM	//12:00 AM	CANDIDATES	VIEW DIAGI
	Evaluate customer	• ready		03/17/23 07:52 AM	//12:00 AM	CANDIDATES	VIEW DIAGI
Ø	Add customer information required for traveling	( completed )	PETER KENT	03/17/23 07:52 AM	03/17/23 08:06 AM	CANDIDATES	VIEW DIAGI
	Are the tickets available?	completed	Workflow Engine	03/17/23 07:52 AM	03/17/23 07:52 AM	CANDIDATES	VIEW DIAGI
	Check availability	( completed )	Workflow Engine	03/17/23 07:52 AM	03/17/23 07:52 AM	CANDIDATES	VIEW DIAGI

For the time being, all tasks were executed by Peter Kent or by the Workflow engine.

For the process to advance, the EvaluateCustomer task (appearing as N/A because there is no user assigned to it) must be executed, and therefore a "manager" user must participate. So, we will do a Sign out and log on with user Anna Smith, previously defined as manager.

Ger	<sup>neXus⁻</sup> Xflow™
Role	~
User or email	
ASMITH	I
Password	
	Forgot your password?
	SIGN IN

When Gxflow client is open we can see that, as expected, the EvaluateCustomer task appears as pending in the incoming tray.

Inbox				
		NEW		
! 🗿 🔊 🏝 Subject	Activity	State Created		
Flight Ticket Reservation	Evaluate customer	• ready 03/17/23 07:52 AM EXECUTE SEND		
Ф <b>Ф</b>		к < > Я		

Let's now execute this task by authorizing the client... Now what appears as pending is the authorization of the reservation by the customer services manager

bo	ЭХ										
HISTO	ORY	PREVIE	W	DELEGATE	BORATE MORE ACTIONS +	N	EW				
I	٩	Ø	*	Subject	Activity	State	Created				
				Flight Ticket Reservation	Authorize reservation-Customer Care Manager	• ready	03/17/23 08:07 AM	EXECUTE		SEN	D
	*							K	1	>	2

Note that only this task appears as pending and not the **Check reservation documents** which was defined in the diagram and is to be executed by an employee, while now we are executing with the manager role.



Let's authorize the reservation and complete the task. Note that user Anna Smith, as manager, no longer has any pending tasks.

Inbox			
HISTORY PREVIEW DELEGATE COLLABOR	RATE MORE ACTIONS +	NEW	
! 🧿 🔗 🏝 🗬 Subject	Activity	State Created	
φ 🗢			< < >_{hn}>

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Let's now log on again with user Peter Kent and complete the process.

GeneXi	flow™
Role	~
User or email	
PKENT	
Password	
[	
	Forgot your password?

Q 🗘

SIGN IN
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Inb	ox					N	EW	٩				
1	٩	Ø	*	Subject	Activity	State	Created					
		Ø		Flight Ticket Reservation	Check reservation documents	• ready	03/17/23	08:07 AM	EXECUTE	S	END	
Ç	\$	d.							K	< :	> >	>

Inbox HISTORY	PREVIEW DELEGATE	COLLABORATE MORE ACTIONS -	NEW	
। • ० <b>०</b>	🖉 🏝 Subject Flight Ticket Reserva	Activity ion Notify customer of authorization	State Created eready 03/17/23 08:08 AM	execute simo I< < > >I
Inbox HISTORY	PREVIEW DELEGATE	COLLABORATE MORE ACTIONS -	NEW	
I O	🔊 🎍 🗬 Subject	Activity	State Created	

One situation that the travel agency requested us to consider is that of an employee who is absent, since as we have defined it so far, there would be processes left awaiting for users with the role and this might cause delays.

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Page

For the tasks to be automatically transferred on to a substitute we use the "Out of Office" functionality. To use this we will log on with the administrator user... and then go to Users, select user Anna Smith and in More Actions we select Edit.

Users			
EDIT REMOVE DISPLAY	ROLES MORE ACTIONS +	NEW	
🏝 🐁 Id	Name	Email	
ASMITH	ANNA SMITH	asmith@gmail.com	
PKENT	PETER KENT	pkent@gmail.com	
WFADMINISTRATOR	Workflow Administrator		
<b>० ०</b>		K < >	×

We choose the Availability tab and see that a window opens up where we can defined whether the user is currently in the office or not.

## Edit User

General	Availability	Certificates	
🔿 User is	currently in the	office	
🔘 User is	currently out of	the office	

If our option is that the user is out of the office and we press OK, then another window will open up, where we can enter further information relative to the absence such as defining the return date and the message to be shown when that user is called.

Out Of Office Assistan	t	
General Substitution		
Return Date	<mark>─────────────────────────</mark> ───────────	
Message		
	CANCEL	ок



OK

×

×

If we choose the Substitution tab we can also select the user who we want to execute the tasks while the other individual is absent.

In this case, for Anna we define her tasks to be done by Peter Kent.

ut Of Office Assistant		×
🗄 🌡 GXflow Administrator		
🗉 🍰 GXflow Backend Administrator		
🗉 🍰 GXflow Form Designer		
Langer GXflow Manager		
SXflow Manager Read Only		
🗄 🍰 GXflow Prototyper		
SXflow Security Administrator		
🚽 🕹 TravelAgencyEmployee		
PETER KENT		
La TravelAgencyManager		
Automatically undo the 🗸		
substitutions when entering		
the Inbox		
	CANCEL	oķ

We press OK once, and once again OK. Now, next to user Anna Smith we have an indicator showing that this user is absent.

Users EDIT REMOVE DISPLAY	ROLES MORE ACTIONS -	NEW	
👗 💰 id	Name	Email	
ASMITH	ANNA SMITH	asmith@gmail.com	
PKENT	PETER KENT	pkent@gmail.com	
WFADMINISTRATOR	Workflow Administrator	U	
0 0		K	< > >

To view this we log out and log on with user Peter Kent.

We press button New, instance the FlightTicketReservation process and execute the TicketReservation tasks and the ContactAirlines instances.

Now we have two pending tasks, the one performed by the employee to add information for the trip, and also the EvaluateCustomer task which was only allowed to managers.

Inb	ox						
HIS	TORY	PREVIE	W	DELEGATE COLLAB	MORE ACTIONS +	NEW	]
I	٩	P	4	Subject	Activity	State Created	
				Flight Ticket Reservation	Evaluate customer	• ready 03/17/23 10:30 AM	EXECUTE SEND
		Ø		Flight Ticket Reservation	Add customer information required for traveling	• ready 03/17/23 10:30 AM	EXECUTE SEND
0	۵						$ \langle \langle \rangle \rangle \rangle $

Even when Peter Kent does not have the required manager role to assess customers, this user was defined as substitute during Anna Smith's absence, so Peter Kent will now have the user roles of the person he is substituting.

If we execute task EvaluateCustomer we can see that, in fact, the employee Peter Kent is allowed to fulfill the manager tasks for which he is now acting as substitute.

Customer financial au	uthorization
Reservation 41	
Id	1
Name	John Parker
Address	6500 Main Street, House USA
Phone	555-123456
Email	jparker@example.com
Added Date	02/23/23
AUTHORIZE	REFUSE

We have seen how it is possible to define security for our processes, by establishing users and roles, and limiting who is allowed to execute each task under which circumstances.

For further information visit the wiki link:

**Evaluate Customer Status** 

https://wiki.genexus.com/commwiki/servlet/wiki?9340,GXflow+Management+Console



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