# Users and Roles

So far, we have modeled process diagrams, associated GeneXus objects to the elements in diagrams and executed those processes. But we did all tests with the administrator user, which is the quick way to prototype each change we make.

If we want to include several participants in the testing stage we must define roles and users and assign users to the roles that will be executing each task.

In a process diagram, to manage access to tasks we must define specific roles that will be part of the model.

Those roles are defined at the KB level. To do that we must go to the window Preferences, Workflow, and double click on Roles.
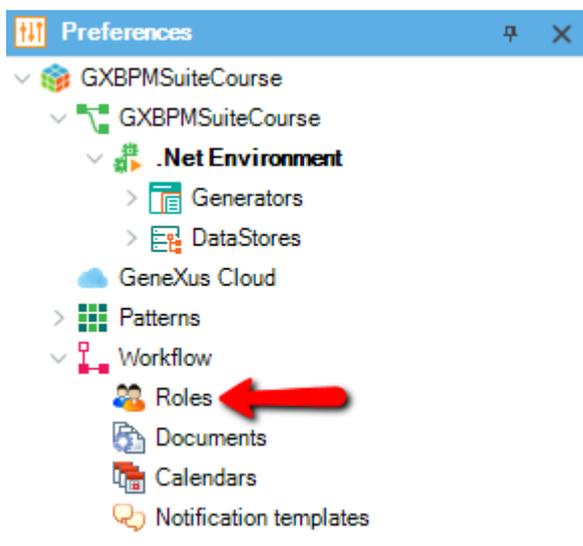

We will see a window open up where we can enter the roles we want to add to the model. In this case, we will define two roles: a TravelAgencyEmployee role and a TravelAgencyManager role.
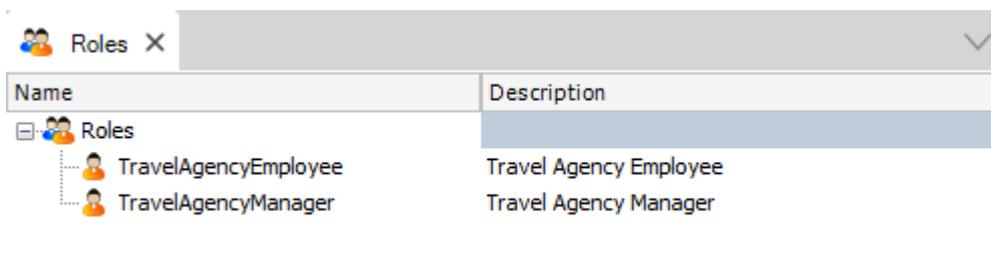
Once we have the roles defined we must assign, for each task, which roles are allowed to execute it.

To do that we go to the **FlightTicketReservation** diagram and select the **TicketReservation** task, and then click on its Roles property.

We will see that a dialog box opens up with the roles we defined previously, with the possibility of assigning them to the task.
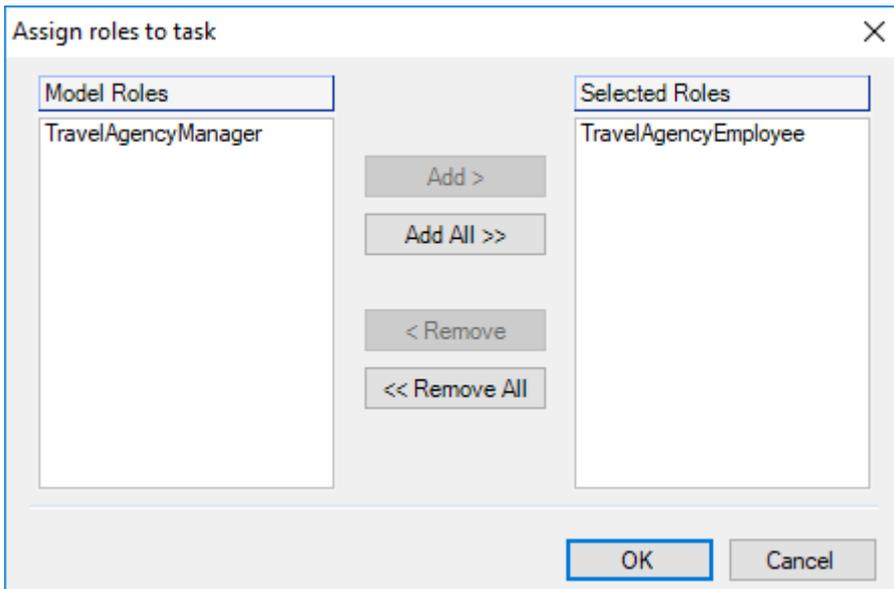
We select the **TravelAgencyEmployee** role and press **Add** because the employee is in charge of entering reservations. We do the same for the **Notify customer of authorization** task.

Now we go to the **ValidateReservation** diagram and repeat the operation while we assign the same **TravelAgencyEmployee** role to tasks **ContactAirlines**, **Add customer information required for travelling,** and **Check reservation documents**.

On the same **ValidateReservation** diagram we assign the **TravelAgencyManager** role to tasks **EvaluateCustomer** and **Authorize reservation - Customer Care Manager**, because only one manager user will be allowed to assess customers and authorize reservations.
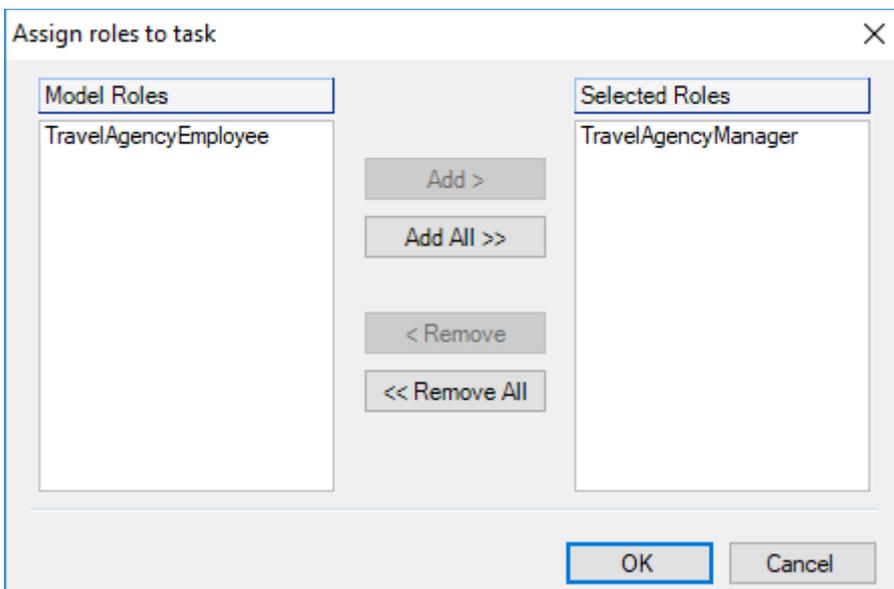
In addition to defining roles for tasks, we can also define roles for processes determining which users may execute each process.

To define the roles allowed to execute the **FlightTicketReservation** process we go to the diagram and select the **None Start Event** symbol, and click on its Roles property.

We assign the **TravelAgencyEmployee** role so that only users with this role may initiate the reservation process. We then press OK.
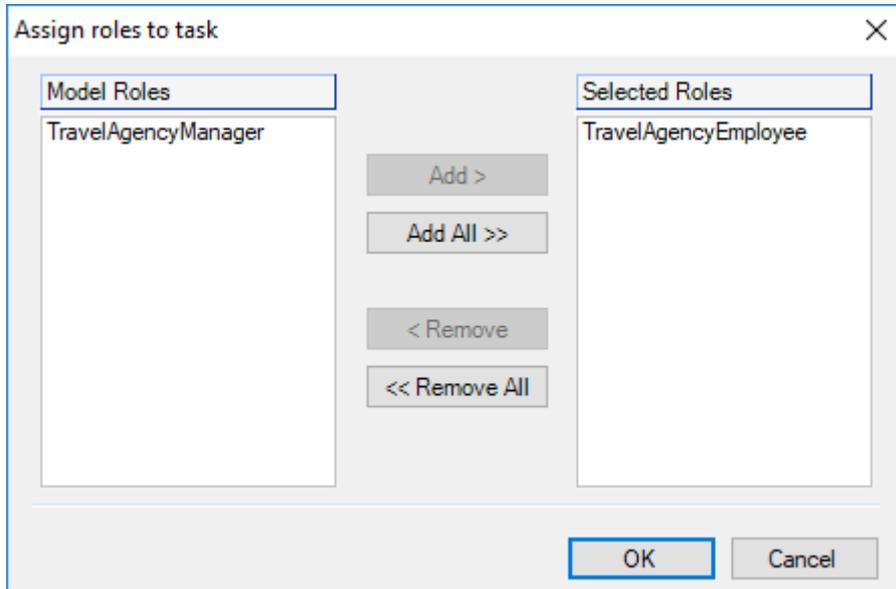

Once we have defined roles at the model level, we must define users and assign to them the roles in Gxflow client.

But prior to that we must impact the changes of definitions we made at the model level. To do so we go to Tools, Workflow, Deploy business processes, and then click on Add, select the **FlightTicketReservation** diagram and press Deploy.
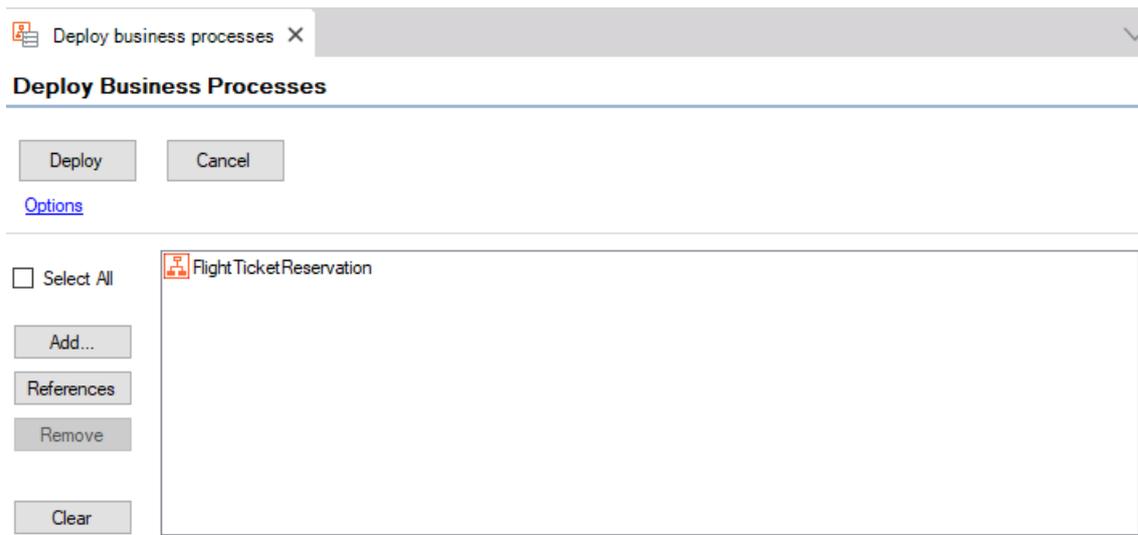
We open a window in the browser and go to the Gxflow client's url. We log on with administrator user and go to the Administration Console, and then click on Roles.

We can see that the roles **TravelAgencyEmployee** and **TravelAgencyManager** we created from GeneXus are impacted.
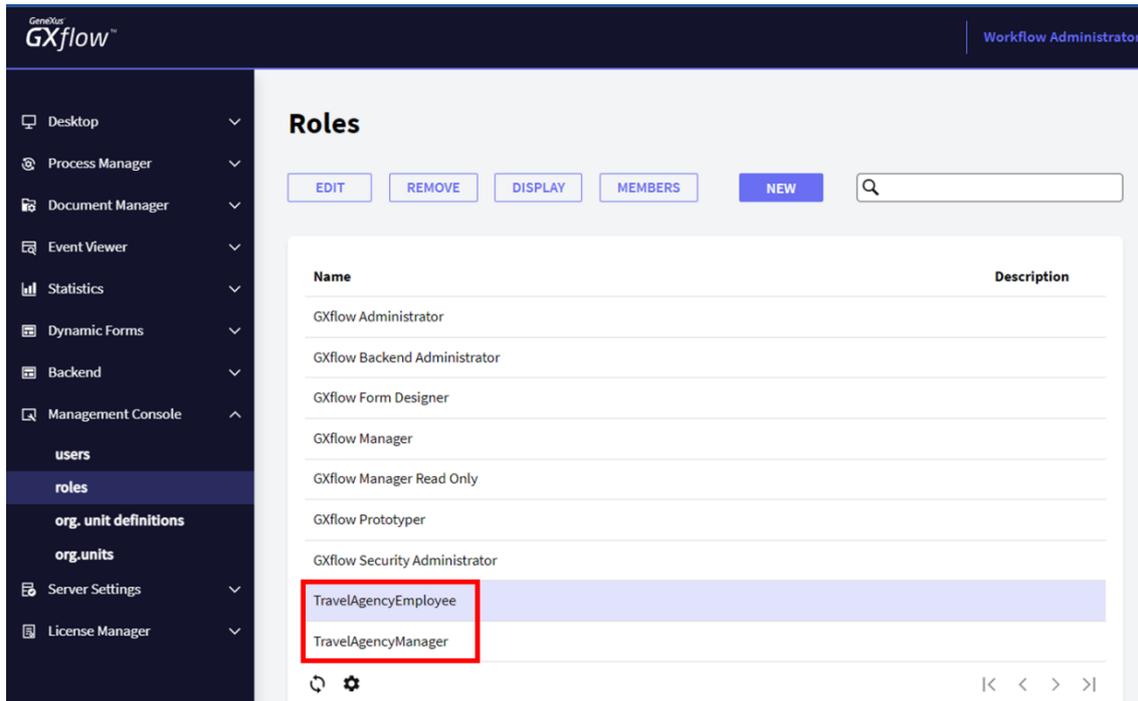

We also view other **special roles** that were already created.

These roles enable us to assign to users permits relative to processes and authorizations for executing administration tasks in Gxflow Client.

The **Administrator** role allows users to perform **all actions in all applications** of Gxflow client.
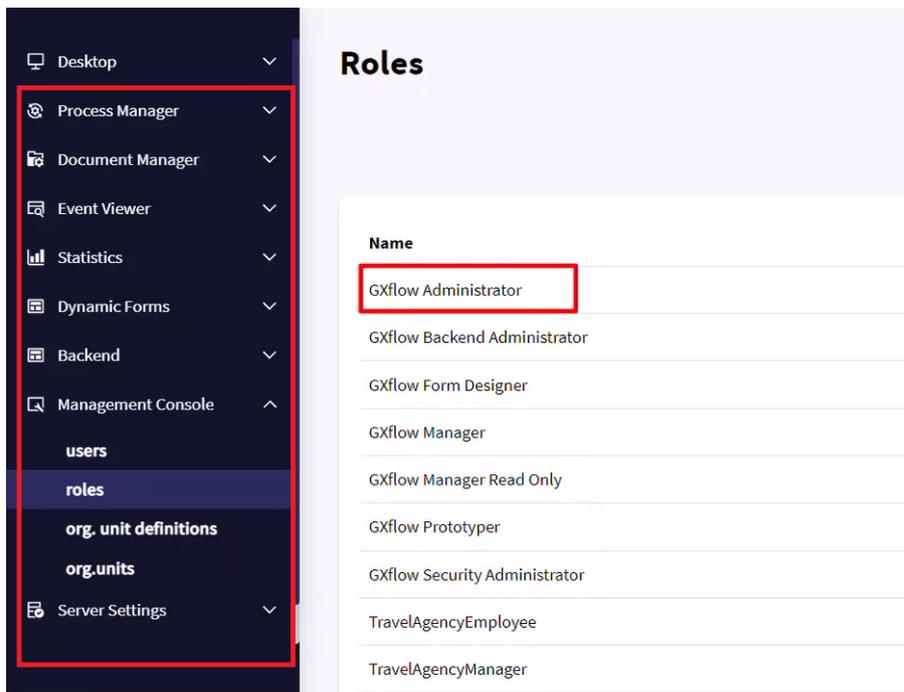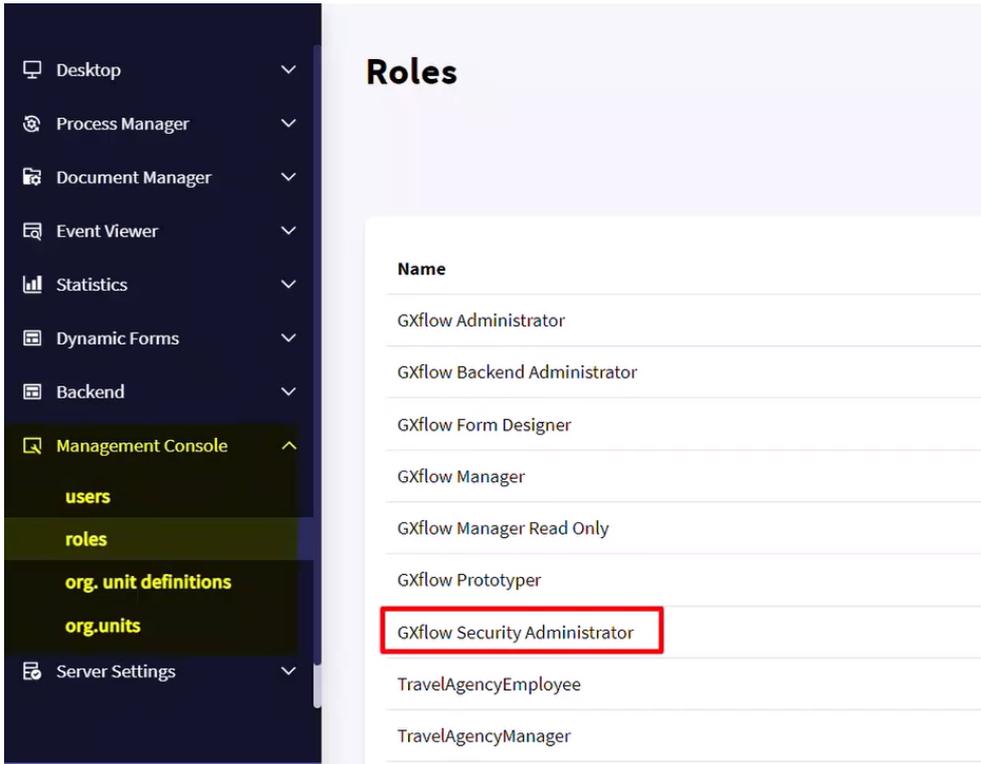

The **Manager** role allows user to access the Process Manager and carry out the actions related to process instances.
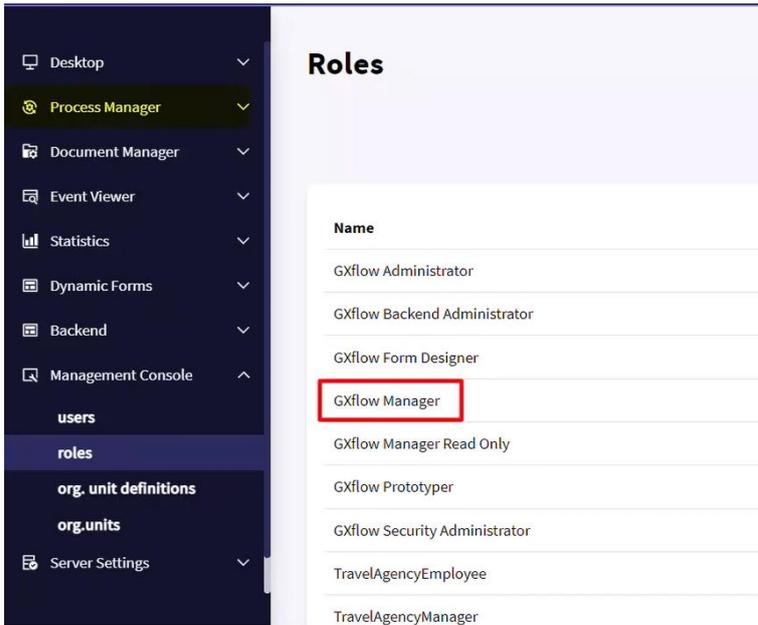
The **Manager Read Only** role can view the same as Manager but is not allowed to perform any actions.

The **Security Administrator** is allowed to view and work on the Management Console only.

The **Prototyper** allows the execution of all tasks regardless of the role assigned to them and this facilitates the development work.

Let's now define users.

In the Administration Console we click on Users to open a screen for administrating the system's users. The only user defined so far is the administrator user which is created by default by the workflow engine.
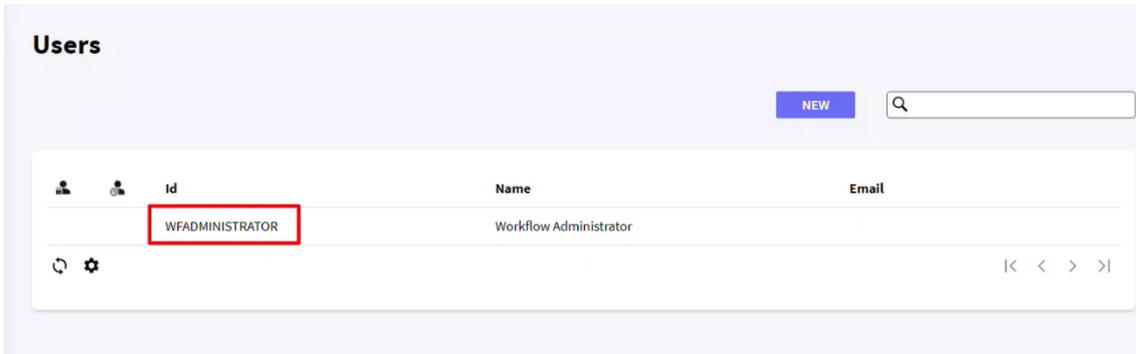
To create a new user we press New and enter its user: ASMITH, its name: ANA SMITH, and the email address, which is: asmith@gmail.com, and also its password: 123456.

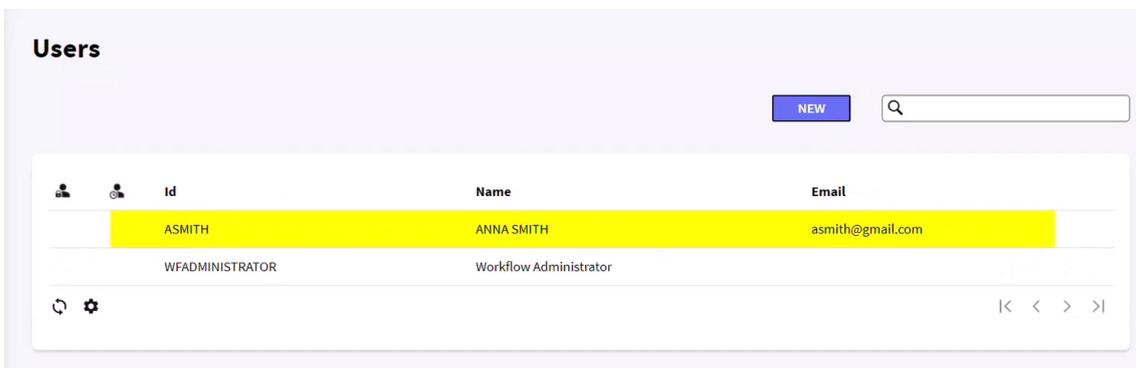We confirm the password and will define that the password must be changed upon the first log on. We press OK and see that user Anna has been created, appearing in the users window.

We will now create another user under the name of Peter Kent and fill out all the details..., using also 123456 as its password, followed by OK.

New User   ✕

General

User	PKENT
Name	PETER KENT
Email	pkent@gmail.com
Password	•••••
R. Password	•••••

User must change password at next logon
  ⦿ True
  ○ False

OK

We now confirm that user PKENT has been created.

Users

NEW   🔍

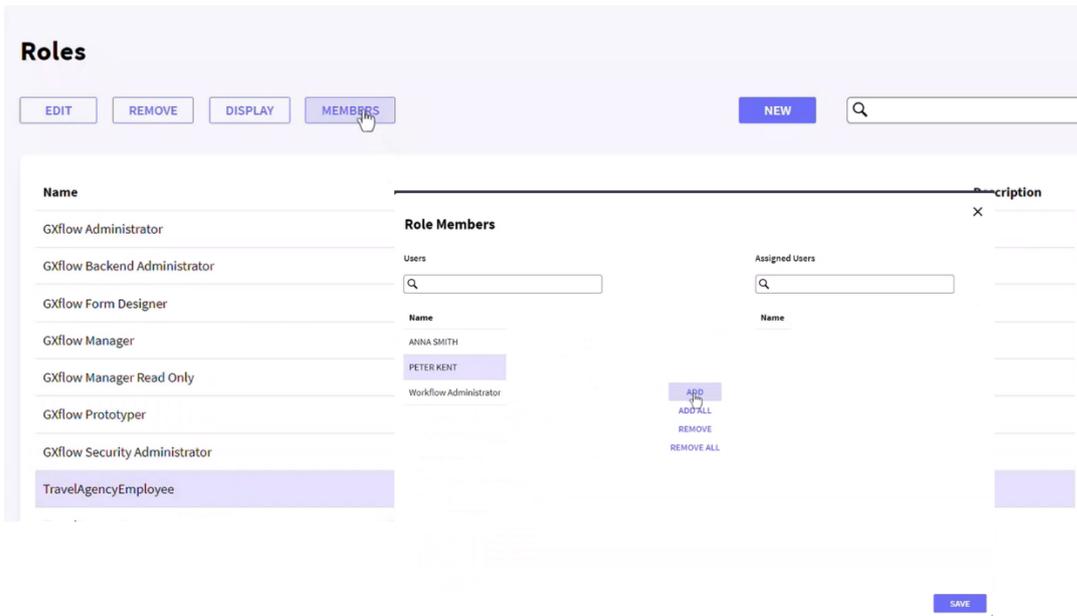| 👤	👤	Id	Name	Email
		ASMITH	ANNA SMITH	asmith@gmail.com
		PKENT	PETER KENT	pkent@gmail.com
		WFADMINISTRATOR	Workflow Administrator	

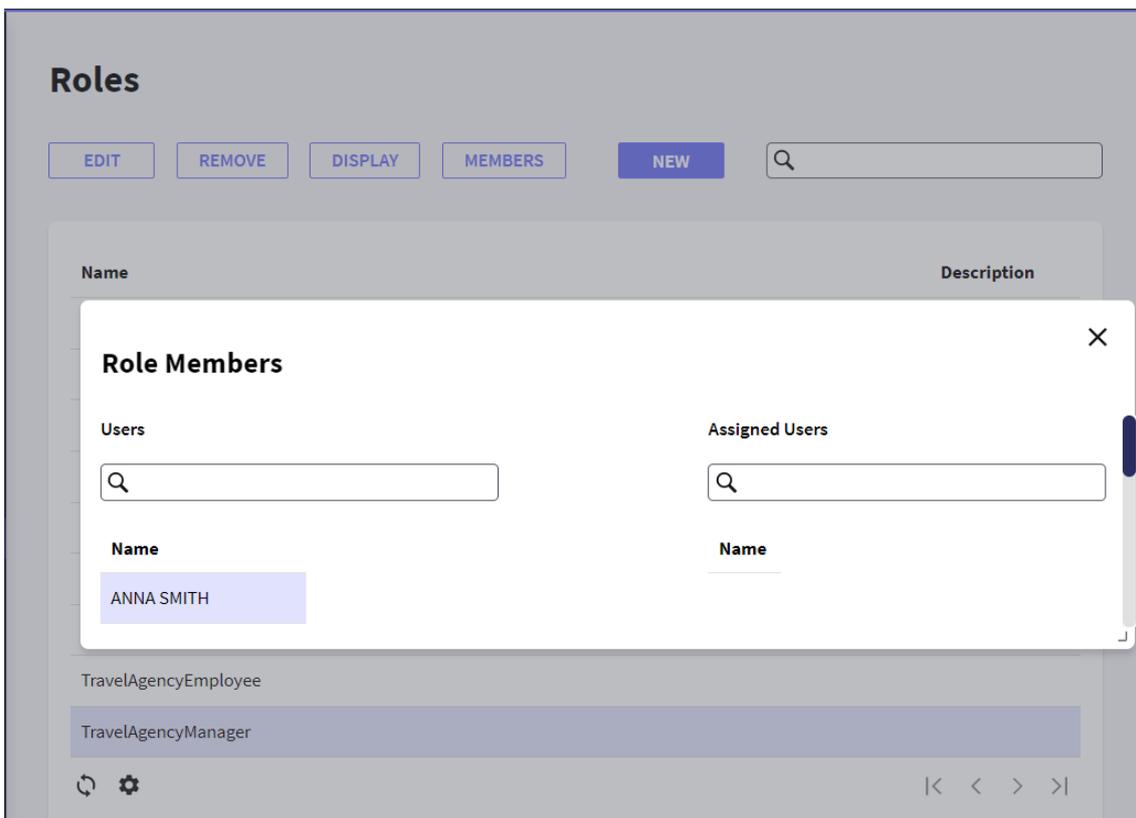🔄 ⚙ |< < > >|

We now go to the Roles application and assign the roles we defined for these users.

First we select the TravelAgencyEmployee role and press the Members button, and in the dialog box we select user Peter Kent and then press OK.

We now select the TravelAgencyManager role and user Anna Smith and then press OK.

With the users we have created we can log on to Gxflow client instead of doing it always with the administrator user.

To be able to do this we must first modify the Workflow execution mode, so we go back to Genexus.