# Introduction to GeneXus Access Manager

GeneXus™

In developing our applications, there are a number of security guidelines that we must consider. The main ones are described in the Open Web Application Security Project (OWASP).

The OWASP Foundation responsible for managing this project is an open community that defines and provides information, in addition to tools for developing and verifying computer systems from a security perspective.

BROKEN AUTHENTICATION
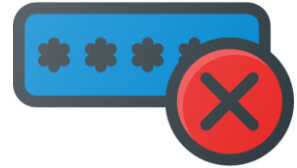
Inside the OWASP several projects coexist. One of the main ones and most significant is the **OWASP Top 10**, consisting of a document that deals with the most critical security risks in web and mobile applications.

At one point in the project, it refers to **Broken authentication,** pointing at the importance of having a good authentication factor.

**AUTHENTICATION**

AUTHORIZATION

GeneXus offers a module called Genexus Access Manager (GAM) to automatically solve Authentication. In addition to this task, the GAM also allows for the solution of Authorization problems, that is, restricting access to the different parts of the app, depending on the roles and permits of each user.

The GAM also provides us with a variety of objects to manage all security problems relate to a web or mobile device application.
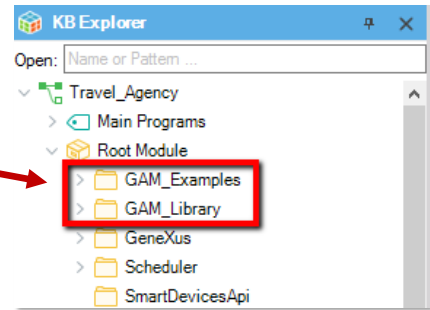For example, objects to add users, assign roles, grant permits, and so on.
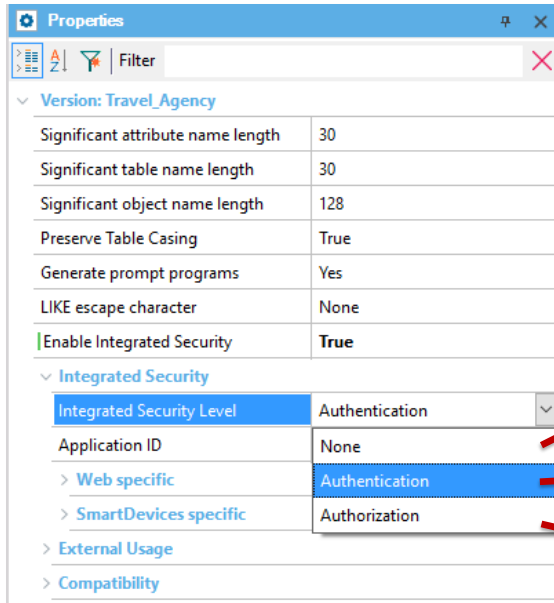
Enabled Integrated Security
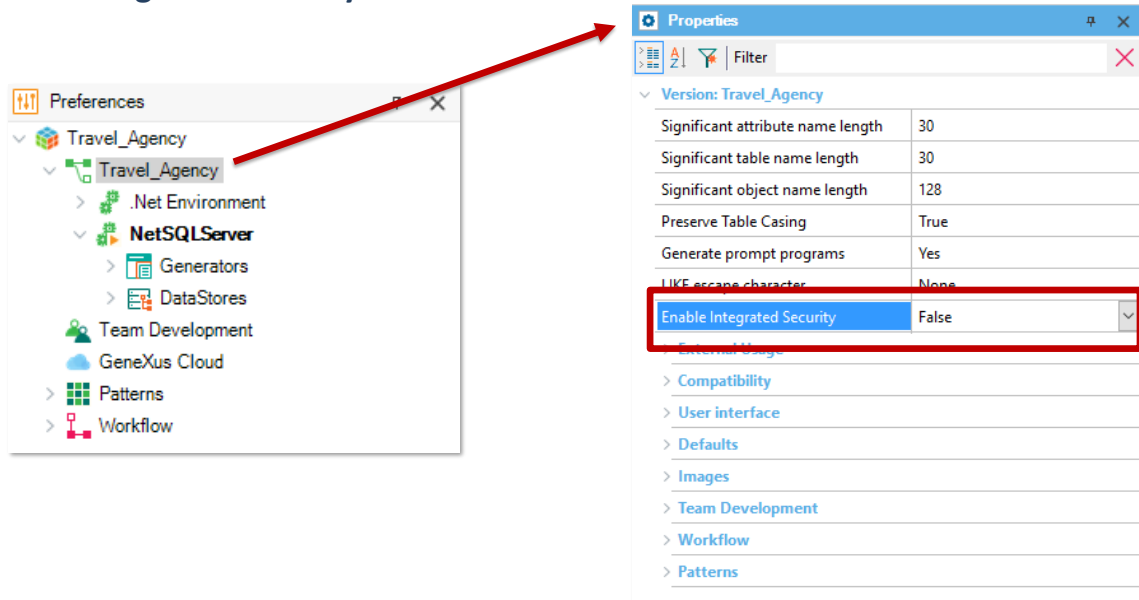
The activation of security controls is done automatically through the configuration of the Enable Integrated Security, property, which may be found in the Preferences window by selecting the active version of our KB.
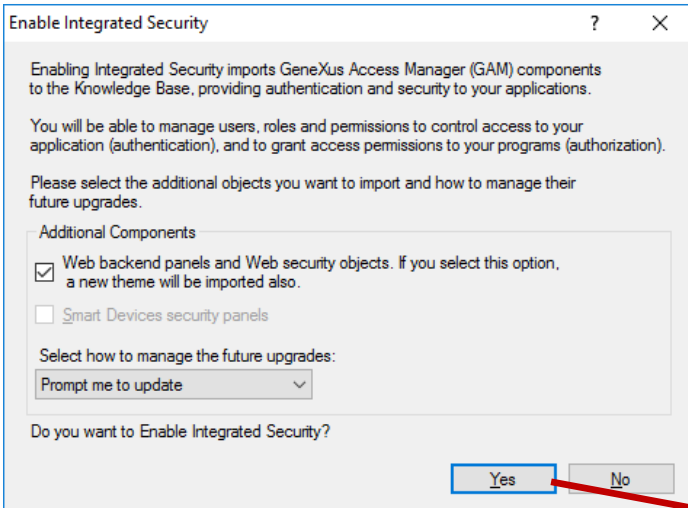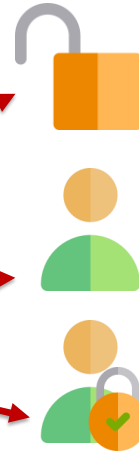
Importación de objetos GAM

When we change the Enabled integrated Security property to True, the components of the GeneXus Access Manager will be imported into our KB. Under the Root Module, we will find folders that contain **several objects responsible for providing the GAM's functions.**

Integrated Security Level

Once security has been enables, we may select the security level by using the Integrated Security Level property, which we will find at the level of the KB version, or the level of each object. The default value for this property is Authentication.

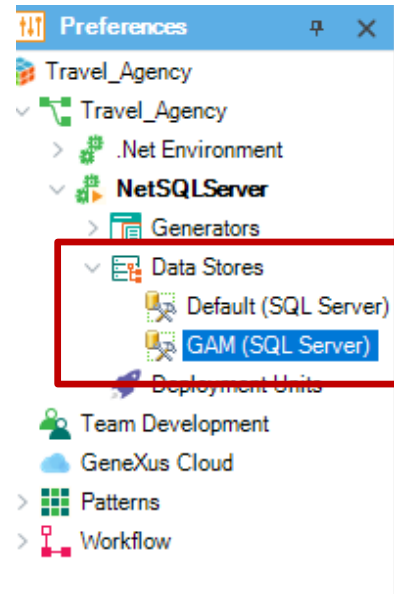Some options for the security level in our app are:

None, in the sense that no security mechanism applies.
Authentication, where the user only needs to be logged in for access.
Authorization, where, in addition to being logged in, the user needs the permits required for accessing each part of the app.
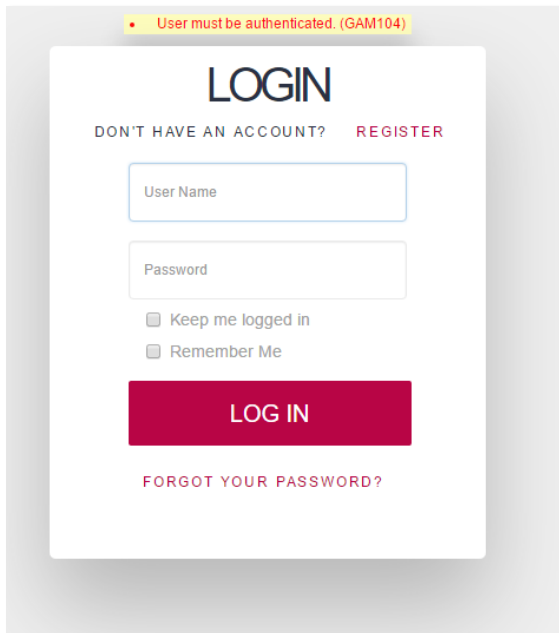
KB

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GeneXus ACCESS MANAGER ™

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Rebuild All

Once we have applied security and the type of level that our app will use, we must do a **Rebuild all** in our KB to create the database that the GAM will use.

User Name: admin
Password: admin123

Within the login form:

LOGIN

DON'T HAVE AN ACCOUNT?   REGISTER

User Name

Password

☐ Keep me logged in
☐ Remember Me

LOG IN

FORGOT YOUR PASSWORD?

• User must be authenticated. (GAM104)

After we activate security, when we run our app, a login screen will be deployed both in the web part and in the smart devices part.
Since we still have not configured any users, we may use a local user with the following credentials: user: admin and password: admin123.

Acceso al panel GAM HOME

To access the GAM management console, we must access the GAM HOME panel listed in the Developer Menu. This panel is the main backend object in the GAM, where we may set up the users and the permits for our app.

DEMO

Let's see a small demo.

[DEMO: https://youtu.be/hhgWSZu1nkc]

Tipo de autenticación

Local

Social Media

Web Service

So far, we have only used the authentication of local users, but we may use another type of authentication such as Facebook, Twitter, Google or any external service.

It should be noted that version 16 of GeneXus may perform the authentication with any provider using Oauth 2.0.
OAuth is a standard for granting access to websites or applications from another website, though without granting any passwords.

One advantage in Oauth 2.0 is that user identity is verified, and a token is issued for the app for granting access, thus making our app's authentication much more secure.

https://wiki.genexus.com/commwiki/servlet/wiki?24746

To learn more about GeneXus Access Manager, visit the following
Wiki link: https://wiki.genexus.com/commwiki/servlet/wiki?24746

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