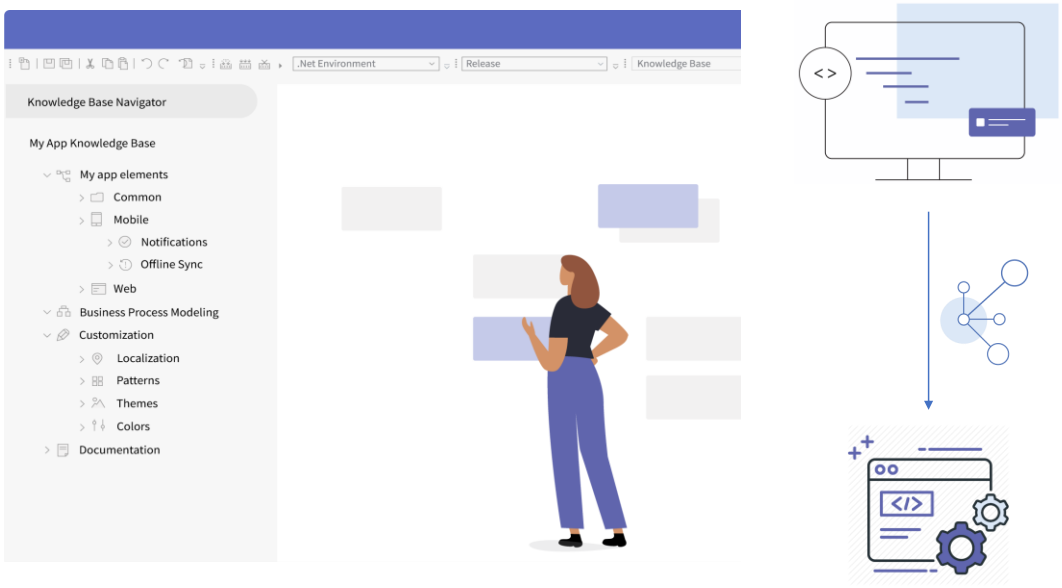
What is GeneXus?

Platform features and possibilities

GeneXus™

What is GeneXus? It's software that makes software.

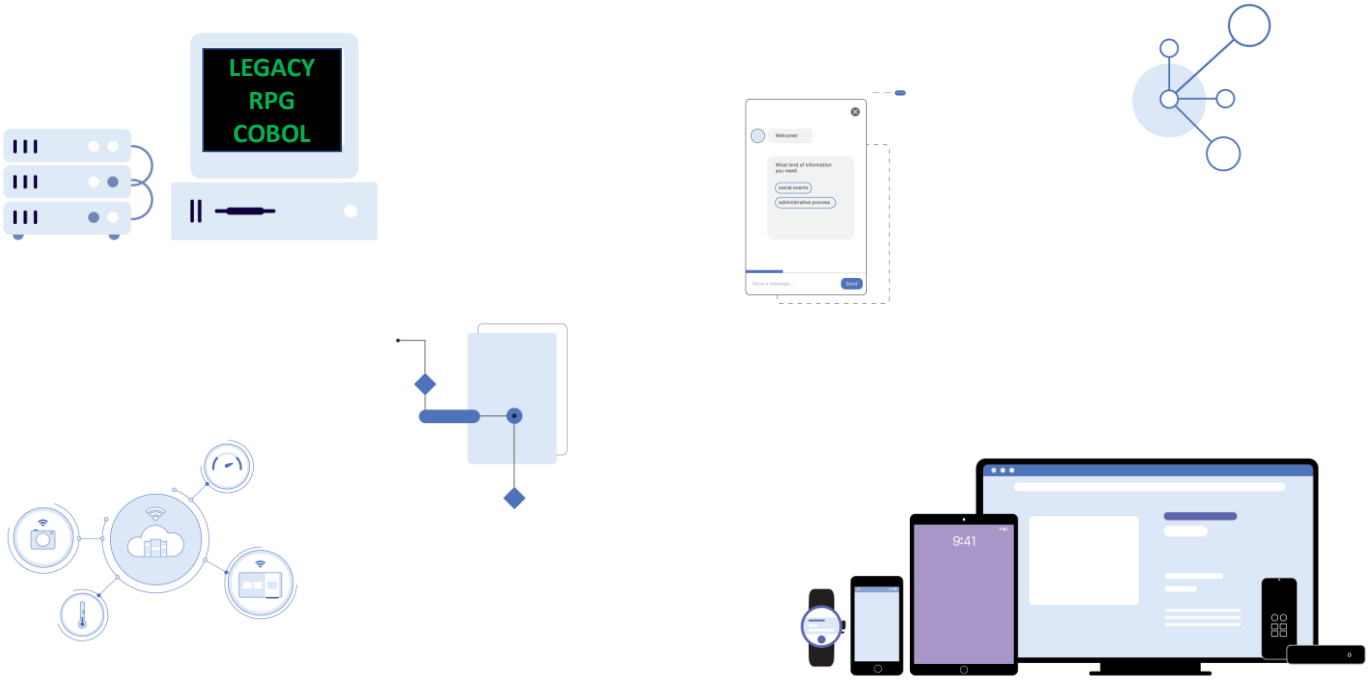
Definition



GeneXus is an intelligent platform that simplifies software development, automating everything that can be automated.

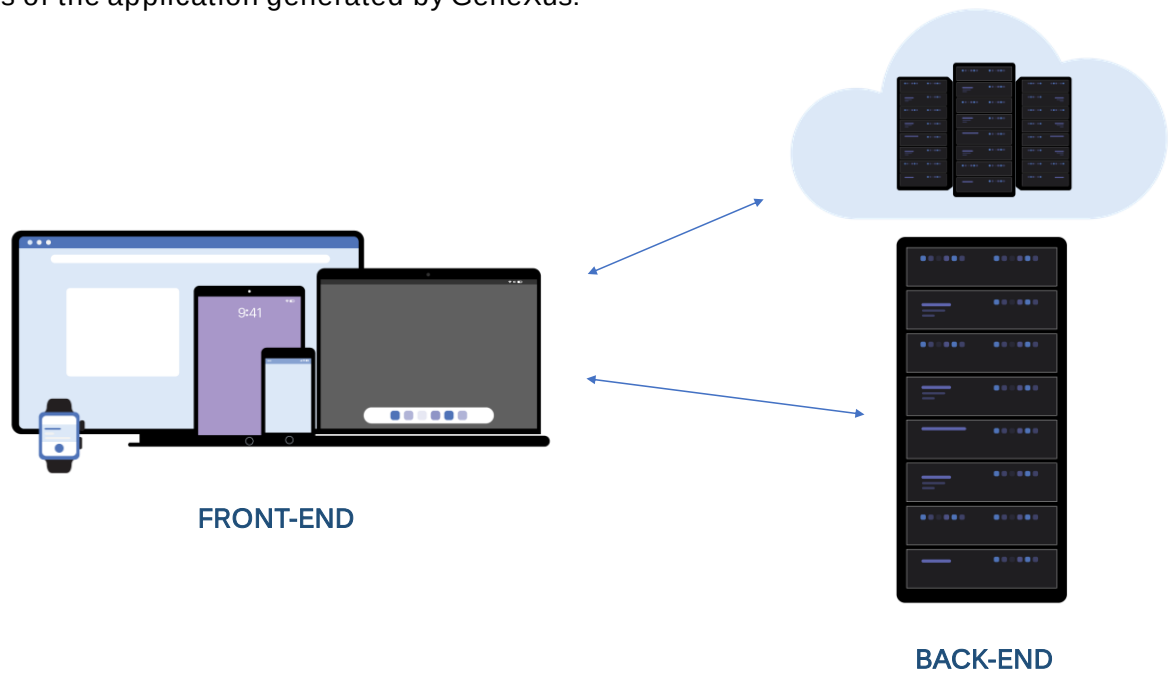
It is LOW-CODE, which means that the least possible code is written, most of it in a declarative way. Then, through artificial intelligence techniques GeneXus automatically generates source code, minimizing the times required for application development, evolution, and maintenance.

Types of applications that can be created with GeneXus:



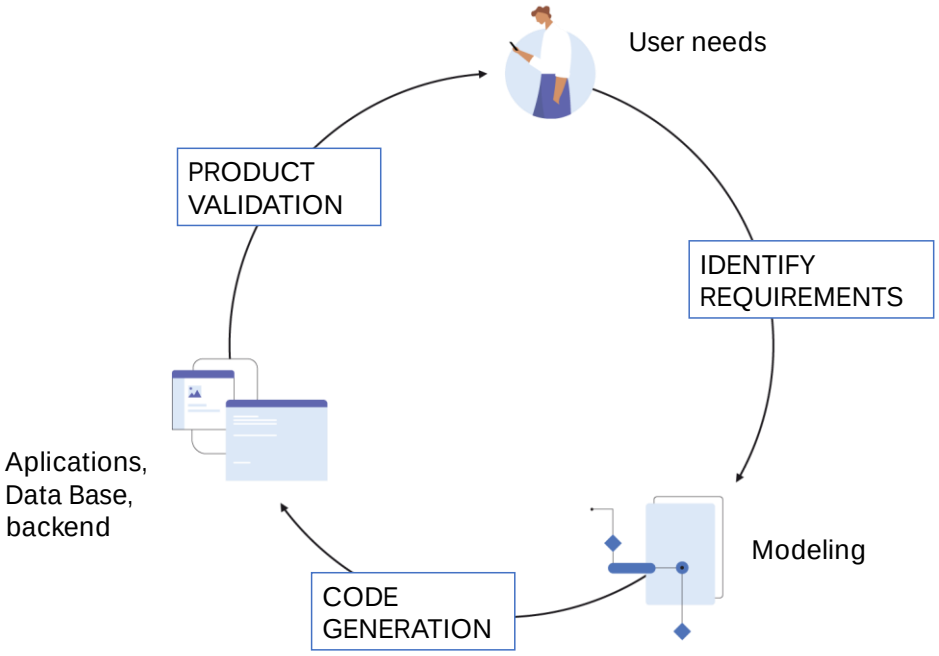
GeneXus allows building different types of applications, from the green screen ones for Cobol or RPG systems, to state-of-the-art Web applications in Angular framework, native code applications for mobile devices such as watches, cell phones, tablets or Apple TV, as well as Artificial Intelligence applications, Chatbots, business process modeling or the Internet of Things.

Parts of the application generated by GeneXus:



It's an agile development and rapid prototyping platform, which generates all the application components for the different platforms where it is executed. For both web and mobile applications, it generates the front-end (which runs on the client device and contains the interfaces for interaction) and the back-end, which contains the services to connect to the database and other applications.

Development methodology using GeneXus



GeneXus' development methodology begins by identifying the users' needs and modeling with GeneXus objects that are added to a knowledge base.

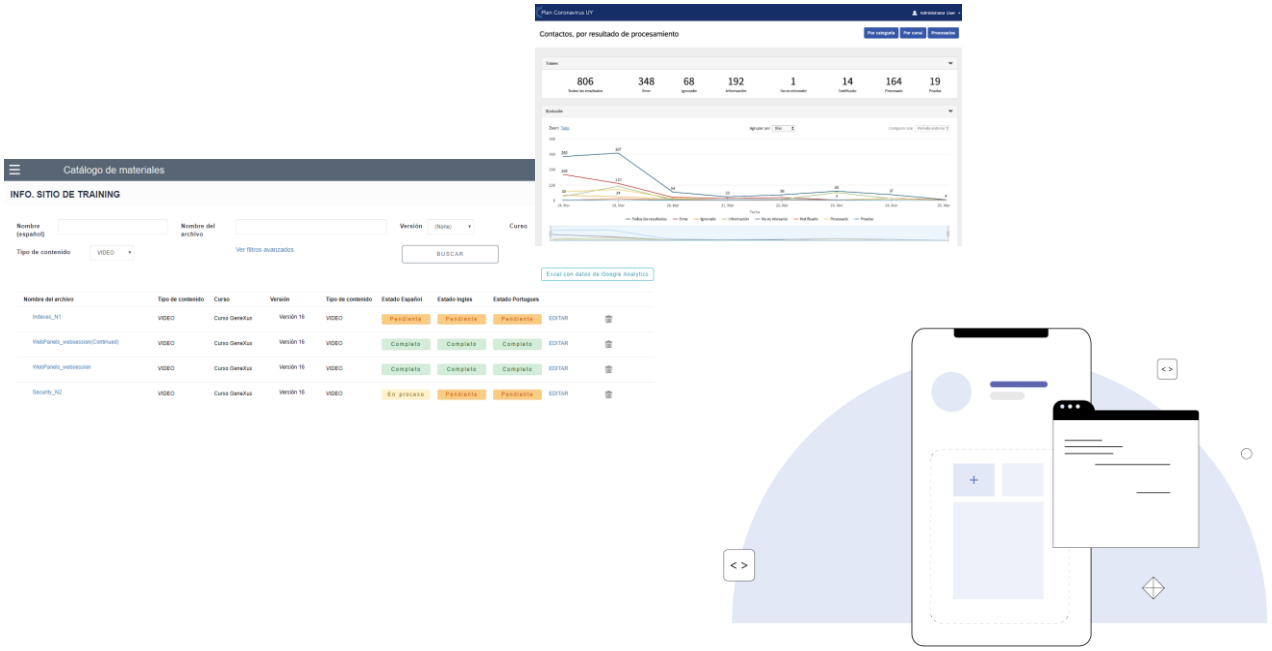
Then, using Artificial Intelligence, GeneXus is able to infer relationships between objects and generate additional knowledge.

Based on all this information, GeneXus automatically writes source code to create the database and its structures, such as tables, indexes, and relationships. It also generates the code to create screens, services, and everything needed to make the application work.

This way, the developer doesn't have to waste time manually writing code, as GeneXus is in charge of generating it in the desired language, and this allows the developer to focus on other higher-level tasks, such as understanding the user's needs.

This cycle goes on, and due to the accelerated pace of automatic generation, development can be incremental, which makes it possible to change the application and quickly obtain a new functional version to show to the client.

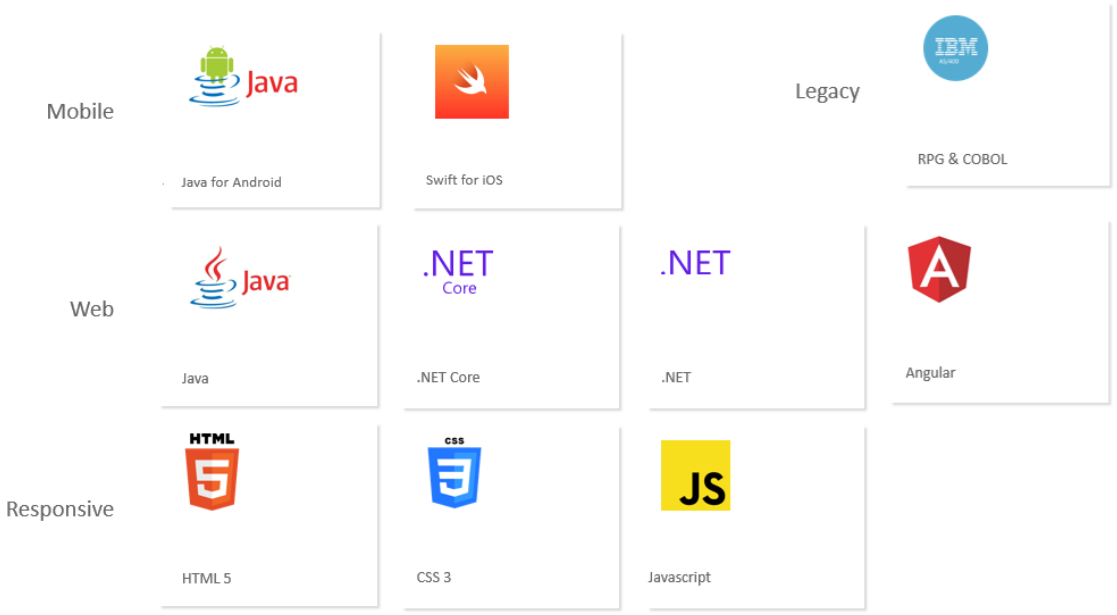
Using patterns and importing designs



With patterns, back-office applications can be automatically generated, allowing you to enter, edit, and display business information, as well as make decisions based on it.

The ability to import screen designs created by a professional in his or her preferred tool, and generate code in state-of-the-art languages, enables GeneXus to create customer-facing applications that offer a unique user experience in line with the market's latest technologies.

GeneXus generates code in the following languages / frameworks

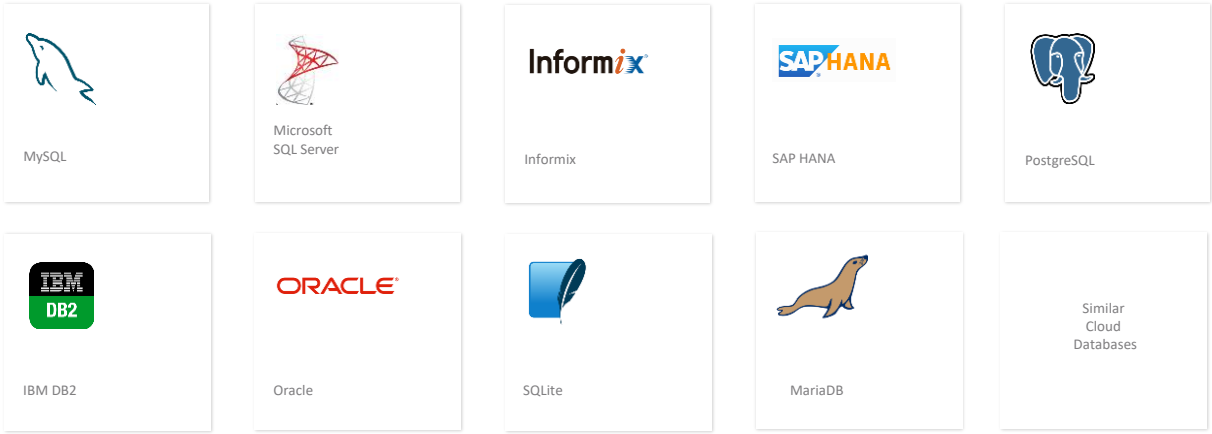


GeneXus includes code generators that write native source code in Java for Android and Swift for iOS for mobile applications.
It also generates Java, .NET Core, and .NET code for Web applications, both for the back end and the front end, and generates the necessary code for the Angular framework, for the front-end of high performance web applications.

For responsive web applications, HTML, CSS and JavaScript code is also generated.

In addition, GeneXus can interact with legacy systems, generating RPG and COBOL for IBM AS400.

Automatic generation and maintenance of the following databases



The databases which with GeneXus interacts are those included on the list.

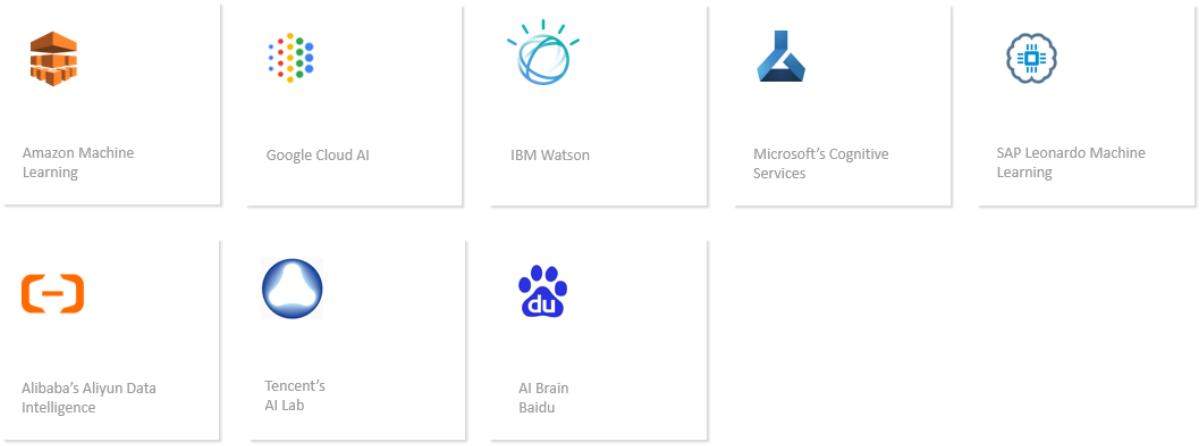
If all this sounds scary to you, don't worry, you won't have to know practically anything about these languages and platforms. You only have to learn GeneXus and it will build the solution using what you indicate, without the need for you to know much more.

You will develop in GeneXus, and GeneXus will build on what you ask for.

Chatbot Generator

GeneXus automatically generates chatbots that can even work in WhatsApp and Facebook Messenger. And again, what you will need to know in order to implement them will be minimal.

Integrated Artificial Intelligence Providers



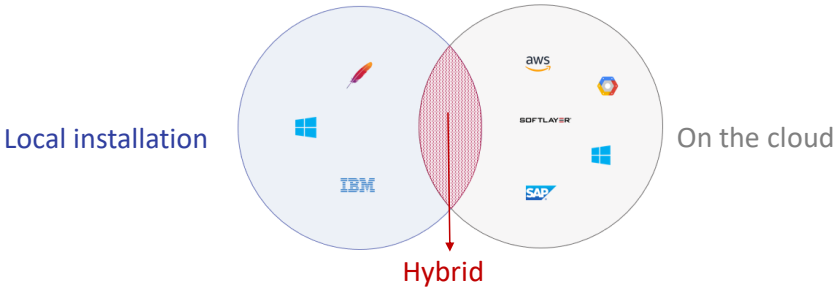
GeneXus allows you to develop Artificial Intelligence applications with no need to be an expert in the field.

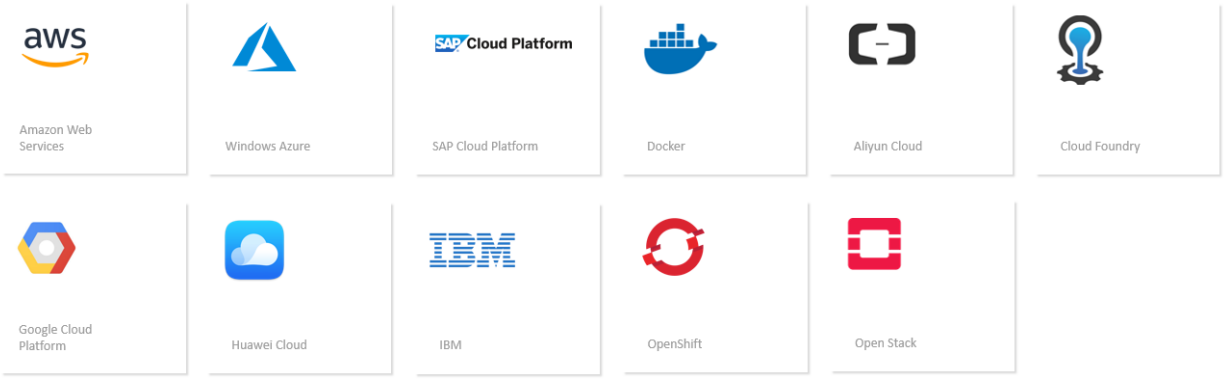
Some of the things you can do with GeneXus are image classification, facial recognition, audio-to-text transcription, spoken text generation, and video processing, to name a few. And for this you only have to invoke predefined object methods and that's it! You won't have to know practically anything about what's behind it.

It is also possible to train your own neural network to make predictions. That is, if you are already more knowledgeable on the subject.

Among the Artificial Intelligence providers that GeneXus can connect with today, are those that can be seen on screen.

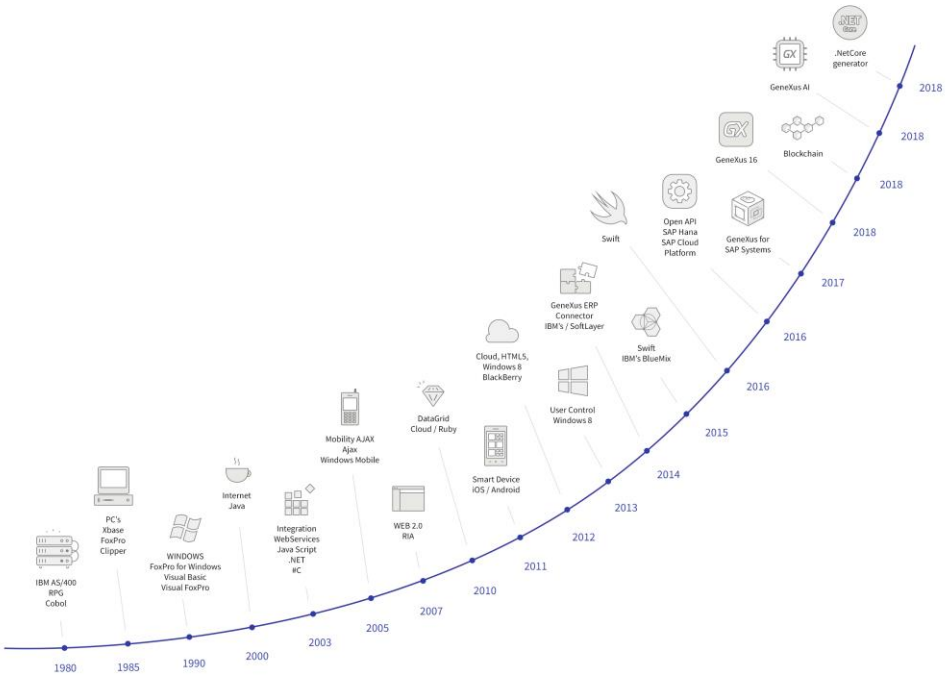
Deployment scenarios and environments





GeneXus also allows for automatic deployment of the generated application. Deployment can be local, in the cloud, or hybrid; i.e. a local part and a cloud part.
In case you want to deploy applications in the cloud, GeneXus can connect with the providers shown.

Continuous adaptation to technological change

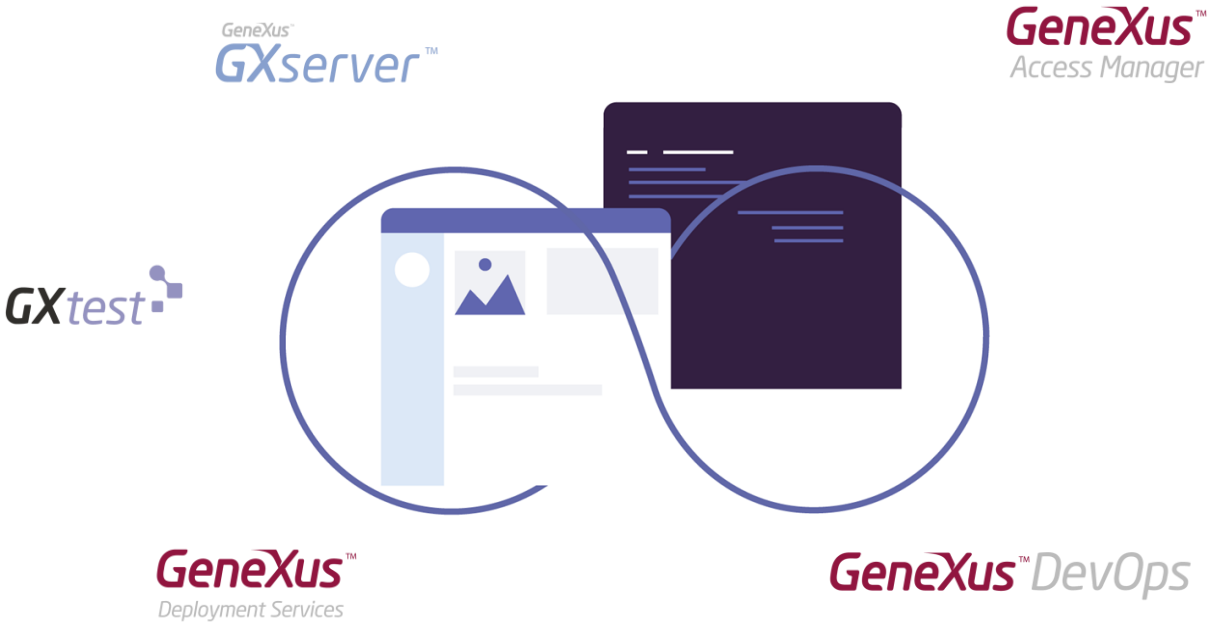


Because GeneXus is always up to date with technological advances, whenever a programming language, database management system or new technology such as chatbots or artificial intelligence emerge as the market's leading trends, GeneXus will immediately incorporate them, which makes it a platform in continuous evolution.
As a result, developers do not need to master all emerging technologies; instead, GeneXus incorporates them and facilitates their use.

In the GeneXus Core course you will see this simplicity that we are talking about. In a few hours you will have a back-office application and a customer-facing application running, both web and mobile, and you will have incorporated the fundamental logic of the platform, which is all you will need from now on to develop any type of application: current and future ones.

You only need to learn the GeneXus language, and GeneXus will do the heavy lifting for you, hiding all the complexity.

Integration capabilities



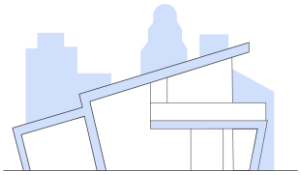
Another important feature is GeneXus' ability for integration, which allows you to create applications that connect to existing systems on different platforms and with different databases. In addition, it allows you to add security features to your applications, create versions of them, work remotely as a team, perform automated testing, deploy them locally or in the cloud, and easily integrate them into a DevOps development cycle.

GeneXus around the World

GeneXus is a global player with a strong presence in Latin America and Japan. Our main markets are Japan, Mexico, Brazil and Argentina, and we have offices in Uruguay, Brazil, Mexico, Japan, and the United States.

GeneXus Community

+135.000
community members



+8.700
corporate clients

+50
countries use GeneXus

+30
years allowing digital transformation

In addition, GeneXus has a large worldwide community with more than 135,000 members, over 8,700 corporate clients, in more than 50 countries, and for more than 30 years.

Feature Summary

Agile and Incremental Development with fast generation of functional prototypes

Multi-platform, including cloud, web, mobile, and wearable applications

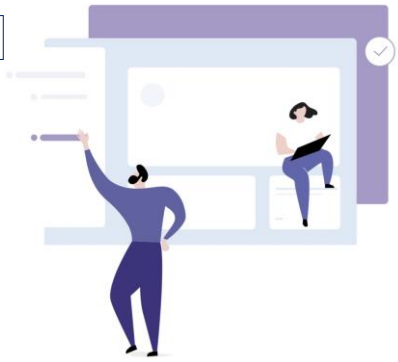
Integration with existing systems and legacy databases

Team Working, Versioning, Testing, Deployment, DevOps

Continuous adaptation to technological change

Real time savings by automating everything that can be automated

Simplified software development, helping companies to innovate quickly and successfully.



In summary, GeneXus offers the following features:

- Agile and Incremental Development with fast generation of functional prototypes
- Multi-platform, including cloud, web, mobile and wearable applications
- Integration with existing systems and legacy databases
- Team Working, Versioning, Testing, Deployment, DevOps
- Continuous adaptation to technological change
- Real time savings by automating everything that can be automated
- Simplified software development, helping organizations to innovate quickly and successfully.

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