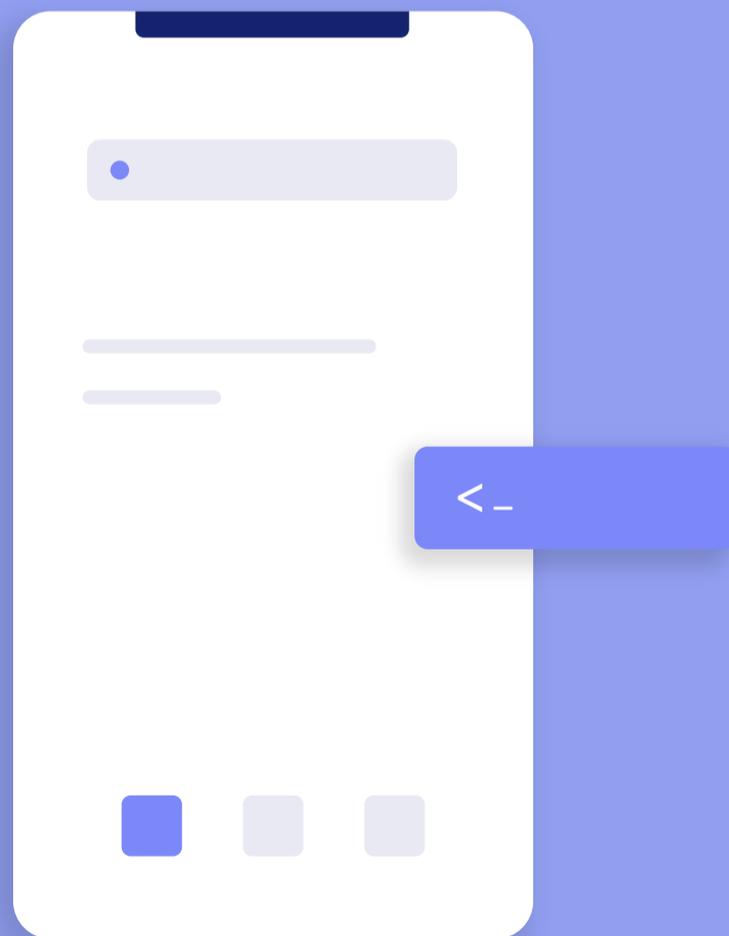# 9 keys to the success of the Coronavirus UY application

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Whitepaper

GeneXus™

COVID-19 has been **the most power-ful trigger for digital transformation** in the last decades. In addition, the changing global context forced development teams to release applications at a speed never before thought possible. It is no longer acceptable to spend weeks defining requirements and design features, plus months of coding sprints to obtain results. **Now these entire processes are measured in weeks or even days.**

In this context, the adoption of **Low-Code platforms such as GeneXus** has allowed many companies to respond to the need to create applications that did not exist yet, implementing use cases that they had not even thought of before, much faster than they were used to. Achieving agility to respond to new requirements without losing essential flexibility in times of absolute uncertainty are two key attributes for success.

Coronavirus.uy, the application developed for the Uruguayan Government to fight COVID-19, is the best example of the power of Low-Code platforms, where this technology is used to the extreme.

Probably all the features defining a good Low-Code platform are important; this article summarizes the **9 main characteristics** that, according to some of its users, were key to the success of the project and should be considered when making a decision about this type of platform.

The adoption of **Low-Code platforms such as GeneXus** has allowed many companies to respond to the need to create applications that did not exist yet, implementing use cases that they had not even thought of before, much faster than they were used to.

1. Incremental Development

The ability to specify all requirements in a high-level model allowed the system to evolve quickly and adapt to specifications that... Changed on a daily basis!

In GeneXus, when requirements change, databases and programs are automatically updated **(Database and Program Refactoring)**. Fast data modeling, changing the model and quickly prototyping according to a predefined pattern, was one of the structural characteristics that enabled us to carry out the project and **respond to such an unstable and unprecedented reality.**

2. DesignOps Tools such as 'Import from Sketch' and Predefined Interface Patterns

Having predefined patterns for the back-end and the ability to import most of the design automatically from a Sketch file allowed for rapid functional prototyping in **Android and iOS** with a highly successful user experience (UX).

3. Multi-experience and Integration

Generation for different channels and platforms: **Android, iOS, Progressive Web Apps (PWA) for users, Web for Call Centers and an integrated back-end** with different entities and providers.

Users accessed from browsers on desktop computers, from devices running PWA applications, or from native apps in iOS or Android, using conversational interfaces, inbox-driven processes, and other advanced functionalities such as teleconferencing and automated triage.

These applications are not only multi-experience, but also integrated out-of-the-box between all internal components, and easily connected to all the other external entities involved.

4. Unit Testing and Continuous Integration

Responding to the changes needed to face an unknown reality, without compromising the application in production or neglecting quality aspects, is only possible through the creation of **Continuous Integration environments and test automation.**

5. Business Process Modeling

Modeling business processes and having the workflow engine and its API to build a backend on top –based on BPM standards–, made it possible to create, modify and adjust the defined processes without any major costs or difficulties for the project.

6. Broad Interoperability

Exposure and consumption of various service and data sources at **unmatched speed.**

7. Teamwork and Agile Versioning

Dozens of engineers, designers and analysts in different geographical locations, working 24x7 on the same mission-critical project, would not have been able to accomplish this without teamwork and versioning functionality.

8. Security
A built-in security module like GAM made it possible to respond to the stringent rules defined to safeguard people's privacy and maintain security at all levels.

9. Performance
Automated deployments from the platform itself or from a pipeline (CI/CD) allowed for **scaling, testing, and adjusting** the infrastructure to check the strength of the solution (and the generated code) to support large volumes of transactions.

Low-Code platforms are definitely an attractive solution to this demanding situation, in which new applications are eagerly awaited.

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GeneXus has **over 30 years'** experience in the business of simplifying software development, helping companies and developers to **create, maintain, and evolve** critical and complex solutions, over time and through major changes in technology platforms and market needs.

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