Welcome to The World of Low-Code

The Modern Enterprise Development Platform
Capturing these and optimising your digital assets isn’t exactly a walk in the park - they each require determination, skill and the right development tools that allow your projects to truly hit the ground running.

You want to quickly lower operational costs while still transforming your business and enable better use of those mission-critical digital applications you depend on. After all, in today’s market, enterprise businesses are met with an urgency to change and outrun the competition, all while cutting costs.

All this is a big ask. When we’re talking about optimising our applications, that usually requires an in-depth knowledge of code - something that not everyone has.

Our answer lies in Low-Code, an alternative to traditional coding, one that’s more accessible for your organisation (we’ll explore why later on). There’s an ever-growing demand for continued application development within enterprise-level businesses. Couple this with technical debt, varying delivery times, a lack of in-house developers and budget constraints and enterprise application development teams often finding themselves failing to keep up with the business’s demands.
There is a need for a more dynamic method of application development and Low-Code empowers enterprise companies in addressing these issues. An answer that helps you unlock data intelligence, automate routines and, ultimately, empower people. But why is it the option of choice?

We’ll be exploring the comparisons of Low-Code versus other coding methods, alongside comparisons between Low-Code application platforms (such as OutSystems and Appian) and the motivations behind working with a development partner.

According to the Gartner Magic Quadrant for Enterprise Low-Code Application Platforms, “By 2024, Low-Code application development will be responsible for more than 65 percent of application development activity.” To see the reasons behind this trend, read on.

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What is Low-Code?

Low-Code is a coding alternative that takes care of the heavy lifting. With enterprise teams looking to replace their legacy code with simple, accessible productivity apps, they need the ability to create and manage these applications with the right governance and technical consideration.

Low-Code is the middle ground between traditional coding and no-code, a visual approach to app development.

Through increased automation of software development, users are able to rapidly and efficiently create apps that help improve efficiency.

In traditional enterprise businesses, there’s the chance of silos developing between the business side of things and IT specialists, as the language of IT is complex and not exactly universal. Low-Code development transcends these silos, bringing the wider enterprise closer to the application and their lifecycles.
For example, let’s consider modern changes to enterprise business settings and the need for updated, integrated and user-friendly systems that enable better work. Low-Code applications that satisfy these requirements include:

- Applications that bring together previously disparate databases and platforms.
- Developments that manage supply chain processes.
- Applications that service remote or flexible working needs.
- Document and asset tracking - especially important for enterprise-level businesses.
- Predictive analytics.
- Chatbots and live-information portals that improve customer service.

**The Problem**

There’s a mounting pressure on IT departments to deliver innovative solutions, on management to onboard technology that’s fit for purpose and on employees to boost productivity. These issues are connected and are exacerbated by backlogs, lack of development resource or staff and budgetary constraints.
Enterprise companies are having to deal with legacy systems that aren’t up to scratch. They’re hard to integrate with or build either apps or features on top of. They might use a large amount of disparate applications or worse still - spreadsheets that handle business processes.

Enterprises grow and end up having complex system architectures, ones that include many different database instances, hosting arrangements and older SOAP APIs that are increasingly challenging to integrate with.

Similarly, traditional coding is difficult and time-consuming. While your developers experiment with the latest in JavaScript frameworks or work frantically to debug unfamiliar code, your competitors are rolling out their own developments.

Enterprise businesses need to quickly, simply and effectively solve these issues without breaking the bank or onboarding too many disparate solutions that eventually become too complex for anyone to manage.

The Solution

This is where Low-Code comes in. By reducing the complexity of software development, big enterprises can rapidly onboard fit-for-purpose technology at a fraction of the cost of working with external providers or continually-leased software.

By utilising Low-Code, not only are you understanding the best uses of your developers, you’re also enabling your teams to widen their understanding of how to create, manage and maintain top-quality applications. Low-Code represents a quicker time to market, better customer experience and increased productivity.
Low-Code vs. Hand-Code vs. No Code

There are three different options for coding: Hand-Code, Low-Code and No Code. They each have their own benefits, use-cases and drawbacks, many of which are based around flexibility, ease-of-use and speed.

When it comes to these three development options, here’s the breakdown.

Hand-Code

The traditional application development process (Hand-code) is long-winded. Whether you’re using web application development frameworks such as .NET MVC or Spring Boot, the process will look a little like this:

- Identify the requirements of the application.
- Plan the architecture.
- Select back-end framework, libraries, data stores, 3rd party APIs and front-end framework.
- Choose a deployment stack and create an operations plan.
- Build prototypes and wireframes.
- Code the user interface (UI).
- Develop failing tests.
- Define models and link them to data stores.
While Hand-code has been and will continue to be a go-to development option for many, within the realm of enterprise businesses, both developers and management need something a radically faster and easier to manage across an enterprise business.

However, the key benefit here is that Hand-code offers the most flexibility in terms of what you can actually do with the code. If you find a bug within your application, Hand-Code allows for a full mend, but it might take a little time.

While this is very flexible, it's also very complex. Each line of code needs to be tested in a non-production environment, with each bug meticulously ironed out. Then it’s time for more testing, in order to determine whether the application instances work for assigned configurations. When using traditional development, the key consideration and currency is time.
The Low-Code development process looks like this:

1. Determine requirements.
2. Select 3rd party APIs.
3. Using a development tool, draw workflows, data models and UIs.
4. Integrate APIs.
5. If necessary, add hand-code to the front-end.
6. Test.
7. Deploy.

At the end of the day, the actual processes between Hand-code and Low-Code involve a lot of the same steps. The key difference, however, is Low-Code does a lot of the heavy lifting ‘under the hood’ - in much more efficient manner.
As you can see, it’s a much simpler process than with Hand-Code. And there’s no doubting the top-level advantages:

➡️ **Development speed**
Apps can be built for multiple platforms simultaneously. They can be finished and demonstrated to management or stakeholders in days.

➡️ **Reduced operational costs**
With Low-Code, there’s no need for hiring specialist external developers if in-house staff aren’t qualified for a specific project. Operational costs per project are also reduced due to a quicker time to market.

➡️ **Visual site builder**
Being given the ability to get stuck into the user interface quicker allows for much earlier changes in the development, meaning you can create a better UX, faster.

➡️ **Easy deployment**
Low-Code development platforms allow for a single-click deployment.

➡️ **Ease of integration**
Low-Code has inherent usability guaranteed by its integration capabilities. Similarly, there’s an ease of integration to legacy APIs or tech stacks.

➡️ **ROI**
Low-Code integrates security, data and cross-platform support. Not only that, these features are easily customisable.

Low-Code offers a good middle ground between speed and flexibility. While it’s easier to master than traditional coding, there’s still a significant amount of upskilling to be done.
No Code

No Code is similar to Low-Code in that it utilises a visual development platform, where code is dragged and dropped to create workflows. However, it doesn’t allow users to work with programming languages.

What this means is that, while staff can create applications without formal training, there’s no room for manoeuvrability when it comes to updating, patching or debugging. There’s also no option for specific front-end or back-end customisation. Similarly, it also lacks the ability to address key/unique features that are important to the end-user’s specific industry use case, which can’t be addressed out of the box.

One big issue with No Code, however, is that using it can result in app development without the proper considerations being built into the software. From the viewpoint of an enterprise-level business, this lack of visibility can be a key issue. For businesses with large turnovers and masses of customers, an app that runs the risk of compliance issues, security concerns and integration issues which are, at the end of the day, business killers.
Let’s sum up our comparisons:

<table>
<thead>
<tr>
<th></th>
<th>Hand-Code</th>
<th>Low-Code</th>
<th>No Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coding</strong></td>
<td>Large amount of complex coding</td>
<td>Little coding required. Can pair with Hand-Code if necessary</td>
<td>No coding needed or available</td>
</tr>
<tr>
<td><strong>Speed</strong></td>
<td>Slow</td>
<td>Fast</td>
<td>Faster</td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td>More potential risks for security breach</td>
<td>Low risk of breach</td>
<td>Low risk of breach</td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>Highly flexible</td>
<td>Semi-flexible</td>
<td>Non-flexible</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>Potentially high cost per project</td>
<td>Low cost per project</td>
<td>High or low cost per project, depending on factors such as outside hires</td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td>Quality and risk vary by investment level. Ongoing internal maintenance and governance.</td>
<td>Platform protects against most attacks, security concerns are application-specific</td>
<td>Low attack surface, lack of flexibility reduces risk of data compromise</td>
</tr>
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At Unipro, we believe that Low-Code is the best option for enterprise businesses, providing the ideal blend of coding possibilities, ease of use and greater development speed.
Gartner has a long-winded definition of application development platforms:

An application platform that supports rapid application development, deployment, execution, and management using declarative, high-level programming abstractions such as model-driven and metadata-based programming languages, and one-step deployments.

Quite high-level stuff - but don’t let this kind of language put you off. Low-Code application platforms (LCAP) are fantastically useful for the enterprise business. But where do you begin when choosing a platform?

We’ve compiled five of the top-performing LCAPs for you to explore. They each have their strengths and uses within the wider audience of businesses and any smaller emerging vendors are only replicating what these five are doing. So for the enterprise-level business, these choices are the go-to.
**Appian** is a classic LCAP, with a focus on complex development processes. It offers:

- Low-Code app building.
- Business process orchestration.
- Automated Decisioning.
- Robotic Process Automation (RPA).

Appian can be used for end-to-end case management and works for a wide variety of applications that require sophisticated automation and analytics.

An important benefit of Appian is its ability to consolidate separate systems into one interface, a function capable of being delivered with zero code integrations needed. Development is driven by pre-built UIs, process models and reusable designs. The applications built are automatically upgraded to integrate with future operating systems.

With full-stack automation capabilities and pre-built no-code integration with AI services, Appian is a complex solution for complex needs.

Appian is used by enterprise businesses such as Aviva, Barclays and KPMG.
You’ve probably heard the Salesforce name or used some of their service offerings in the past. This LCAP is another offering in their wide range of services.

This platform is well-focused on developing applications for business, with a good level of customisation in terms of complexity. Existing Salesforce customers are attracted to this option because they know Salesforce works with large enterprises.

The platform enables you to:

- Develop apps simply.
- Experience a speedy time to market.
- Digitise any business process.
- Integrate across the board.

While the offering is straightforward, Salesforce is planning to expand their LCAP support capabilities, meaning that integration, orchestration and the unification of runtime technologies are more effectively captured.
Mendix is the platform that delivers both No Code and Low-Code development tools. It’s a useful piece of software as it’s based on a model-driven, cloud-native architecture. It addresses needs that cover:

- Integration.
- Workflow.
- Event processing.
- AI-supported development.

Users also benefit from Mendix Data Hub, a service that helps with Low-Code integration, alongside two private cloud service options.

One of their key messages is that this LCAP allows you to leverage the entire workforce, avoiding departmental silos. Similarly, it offers apps that are developed to be cloud-native by default.

Mendix has been used by businesses such as Zurich, Onepoint and IBM.

Power Apps by Microsoft

Power Apps is the LCAP designed by Microsoft. It delivers a wide service offering, with features such as:

- Power BI for business analytics.
- Power Virtual Agents for Low-Code chatbots.
- Power Automate.

Power Apps has a pretty straightforward design-time toolset, meaning that it’s well-suited for citizen developers. Its key benefits are a potential 74% reduction in development costs and 188% ROI over three years.

A key differentiator for Power Apps is its ability to run multiple connectors to different applications, such as Outlook, SharePoint and OneDrive.

Power Apps is used by such well-known companies like Capitol Records and IKEA.
OutSystems is a great option for its focus on enterprise application development for agile and continuous delivery. It’s actually a platform that stands out from the rest - and for good reason. The system works through a built-in user interface framework that contains both multiple templates and user interface patterns, meaning it has a high ease of use.

Similarly, OutSystems also has enhanced DevOps and data management capabilities, provided by builders for workflow and better user experience so that development projects are easily facilitated.

The tools OutSystems provides are AI-assisted, helping even inexperienced developers to build a wide range of applications. There’s a real emphasis on collaborative development, where comprehensive tools and users can be connected throughout the platform. Alongside that, OutSystems champions ‘Great UX by Default’ - a great advantage for first-time users.

The platform offers:

- Enterprise-grade build potential.
- Automatic security.
- Continuous monitoring.

OutSystems are known for having a wide range of large enterprise partners, such as Volkswagen, Warner Brothers, Santander, Mercedes Benz and ExxonMobil.

You can explore more comparisons on Gartner’s Enterprise Low-Code Application Platforms Reviews and Ratings.

The right choice of Low-Code application platform is crucially important. Enterprise businesses need one that is agile, utilises user interface frameworks well and next-level data management capabilities.

On top of that, enterprise businesses still need guidance. Low-Code is still a learning curve and without the right teachers and partners, you’ll struggle to harness the full potential of Low-Code. Let’s talk development partners.
Working With a Development Partner?

While Low-Code makes developing an application very fast and efficient, it still requires an experienced helping hand to aid in getting up to speed. The learning curves for employees can be steep, but it still offers better flexibility than No Code, a chance to upskill employees and is not as time-consuming or complex as Hand-code.

A key requirement for Low-Code is, therefore, working with a development partner who can truly help you get to grips with this useful application development method and platform.

When working with a partner, you’re benefiting from the skills and experience of a whole team, who can advise and guide on which implementations will be critical to your success. Plus, when looking for a partner, you want one who can augment your internal team (if you have one) and collaborate for training, upskilling and knowledge transfer, so you retain ongoing control and are not tied into a continuous support expense.
The best development partners understand your needs - and how those needs are impacted by your frustrations. They’ll teach you and your staff how to use Low-Code for yourselves, meaning you’ll never be completely dependent on them in the future - the perfect consideration for enterprise businesses looking to support themselves and grow their list of tangible skills present in the workforce.

A development partner takes into account vision, costs, value, time constraints and functionality. They have a deep technical understanding of Low-Code, fitting together the pieces of the puzzle so that the full picture is revealed to you.

When it comes to application development for enterprise, the value of strategic partnerships is undeniable. We’re working within a technological landscape that’s constantly evolving, so our development projects need to be proactive and up-to-date. That’s why we’re here to empower your digital performance.
Working With Unipro

At Unipro, we help to design, develop and optimise your mission-critical digital applications and take great care to do this while considering your needs, goals, technical landscape and business context.

If you’d like to use Low-Code to power the processes behind your user interfaces and consumer-facing apps, we can show you how to do this. Our specialists can help you:

- Get the most out of Low-Code fast, guiding you through your first app builds in order to make sure they properly satisfy your business needs.
- Best leverage the power of Low-Code to put the data and apps straight in the hands of the people who matter.
- Adapt and onboard Low-Code development across your entire enterprise.

At the end of the day, we’re here to help you get the most out of your applications. Other development partners might develop great software for you, but never show you how it’s done, keeping you stuck working with them indefinitely. We’re not about that. Low-Code is an adaptive development methodology, a true advantage for you. We’re not here to keep it to ourselves.

Our methods are heavily data-driven. Don’t be doubtful when we start asking you a lot of questions. We’ve done our homework, but we just want to get the most data we can and ensure that stakeholders are on the same page with the shared vision.

We work with a focus on agile development, one that’s engineered to suit the collaborative working relationship you’ll experience with us. Overall, we’re both working on a shared vision and so a proper integration of our teams exists to deliver incremental value to your business.
Our Low-Code solutions give you the ability to do more in less time. At the end of the day, there are four things we work towards:

- Building trust.
- Utilising our passion for technology.
- Caring for clients...
- ... and caring for people.

We believe in the utility and benefits of Low-Code. We’re here to help you experience those in tandem.
At Unipro, we’ve been developing integrated, bespoke digital applications - from factory automation and web portals to ecommerce and mobile solutions - since 1997. That’s more than twenty years working on the forefront of technology. Through our time, we’ve learned a thing or two. Our work speaks for itself, as we’ve delivered success for a wide variety of clients.

For example, we were able to help Jacobs, the American international technical professional services firm, with developing a new application which allows airports to import their data. The model works to generate the expected life of runways and other surfaces by processing data.

The application we helped develop provides a multi-year forecast, allowing users to alter the data-set and re-run models, helping them to plan for future surface work.

Overall, we’ve seen how Low-Code provides value by:

- Creating enterprise-ready applications faster.
- Reducing the cost of ownership.
- Guaranteeing legacy integration.
- Streamlining and digitising mission-critical processes.
- Empowering users with applications built for them.
- Advancing digital transformation for enterprise businesses, maintaining their ability to provide for customers and stakeholders.

While the immediate benefits of Low-Code, when offered through development platforms such as OutSystems, are speed and agility (benefits not to shake your head at), more value lies under the surface.
We're talking about capitalising on ‘multi-experience’, where Low-Code applications deliver omnichannel customer experiences that rival market leaders. Low-Code makes the experience over multiple touchpoints seamless, meaning that there’s an undeniable focus on the user and how they interact with what you can create.

Plus, even though there are multiple touchpoints to be considered, utilising Low-Code to develop these yourself means you can provide a consistent user experience, regardless of how the customer is interacting with your enterprise.

There’s also development capabilities for all. Take OutSystems for example, a platform in which enterprise employees can easily upskill themselves and collaborate to rapidly deliver fit for purpose solutions. We speak from experience when we say that a platform like this truly unleashes creative potential.

Low-Code development also guarantees automated governance - the ability to fully control all of your projects from a centralised interface. You can experience visibility over infrastructure, environments, applications security and your users.

Low-Code helps get rid of the issues of shadow IT, where unsanctioned apps are created and used without the approval of your IT specialists. It’s just one way Low-Code makes sure everyone is on the same page about their uses.

Our work with OutSystems has allowed us to help enterprise businesses meet the demands of the modern global marketplace. We’ve empowered ourselves to help you - now it’s your turn to be empowered.
Discovering Low-Code is an exciting way of revolutionising your business. The way to discover it and solve complex business challenges along the way is to seek the insight of an experienced and passionate development partner.

If you’re looking to accelerate your digital performance, fantastic - we’re here to help. We’ll get to know you, your goals and your business landscape, in order to provide the right solutions that are fit for purpose. We want to understand your problems and genuinely help you get to that next level of digital optimisation.

We deliver strategic service design, a methodology that can help you meet the rapidly changing demands of your modern business scenario. We want to make sure you can find the most value within your digital landscape.

Get in touch with us in order to:

- Architect the best solution for your enterprise business.
- Integrate your critical business systems.
- Unlock your data intelligence.
- Optimise bespoke web and mobile applications.
- Automate where needed.
- Empower both yourselves and your customers.

At Unipro, we’ve seen that traditional coding no longer meets all of an enterprise business’ needs, a world where everyone needs the ability to create applications - regardless of their background.

So to discover just how you can begin benefiting from Low-Code implementations, book a demo with us today.

BOOK NOW