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Driving Agile & Low-Code Development Efforts (using Mendix) for Digital Transformation - A Step by Step Guide

A Whitepaper

Rapid Adoption and Growth of Low Code Development

The low-code development platform, with its graphical user interfaces and configuration-based approach, enables both programmers and non-programmers to build application software quickly. According to a Forrester report, this platform is rapidly replacing the traditional coding model to meet the growing demand for faster product development, accelerating the process by up to 10 times. It automates much of the development workflow, addressing the shortage of skilled software developers amid the increasing need for digitalizing operations.

The growing popularity of low-code platforms is evident from their rapid adoption, resulting in an annual growth rate of 50 percent. The global low-code development platform market, valued at approximately $4.35 billion in 2018, reached $13.2 billion in 2020 and is projected to grow to $45.5 billion by 2025. Between 2020 and 2025, the market is expected to mature, achieving a Compound Annual Growth Rate (CAGR) of 28.1 percent. This growth will be driven by the accelerating pace of digitalization across industries and the continued evolution of agile and DevOps practices.

Making a Case for Low Code Development

Reasons for its Popularity:

The world is in a hurry today, with a dire need for instant personal gratification or to service a customer quickly. This has become crucial for retaining customer loyalty as any delay will cause the customer to move on to the next vendor who can service them rapidly. With globalization and digitalization, the pace has quickened further, and the traditional complex coding method is simply too painful and slow for the impatient customer. On the other hand, a low-code digital transformation platform comes with features that make building, launching, and changing enterprise apps fast and simple. Some of the key features include:

- Visual Modeling Application using visual representations of processes enables developers to drag-and-drop interfaces without writing a single line of code. This way, ideas can be converted to apps at the speed of thought.
- Agile development in low-code development allows iteration of apps and release without any delays with cross-platform functionality without any extra effort.
- Declarative Tools in low-code software can also be implemented using visual models and business rules that make future changes or additions more straightforward and quicker.
- Security and scalability have, over time, evolved, making low-code platforms such as Mendix enterprise-grade and secure.

Benefits of Low Code Development:

Speed isn't the only advantage users of low-code development platforms like Mendix can enjoy. Here are some of the other key benefits:

Low Risk with High ROI:
Not only is developing on a low-code platform easier, but it is also less risky, increasing the chances of high returns on investment.

Faster Development:
With Mendix, apps can now be built in days, which previously took months to build.

Low Maintenance:
Updating, debugging, fixing, and modifying to suit customers' changing needs is easy and fast.

Faster Development:
A low-code platform allows the development of multiple apps parallelly, thereby reducing lead times and eliminating backlogs.

Cross-Platform Functionality:
The app developed on low code platform is automatically made functional on different devices without much modification required.

The 11 Steps for Low Code Development

However simple a low-code development platform may be, it still requires a focused approach—especially when you decide to use one like Mendix for your app development.

Identify Business Needs:
Understand the business needs of the app being developed and what problem it hopes to solve. Also, assure your customers of your capabilities.

Collect Requirements:
Engage with the customer to understand the features and flow of the app.

Estimate the Time:
Based on the inputs, estimate the time needed to complete the development process.

Phase it Out:
Break the project into two to three phases and create a plan to deliver sprints.

Cost and Resource Estimation:
Once the timelines are frozen, calculate the resources needed and the cost.

Collect Requirements:
Aggregate physical documentation, existing app details, knowledge transfer, and business analysis. At this stage, the program manager or the solution architect gets involved.

Design Phase:
Set the expectations right.

Sprint 0:
Start the engagement with development by designing the application and estimating the rolling out in terms of UI and functional requirements. Create the user stories and wrap them all up together as a sprint.

Development Process:
Develop the user stories closely with the client for the progress report, change requirements, management, etc.

Testing:
The QA team would have already created the test case scenarios. Once the development is over, they start testing them with daily status reports on rectified bugs, and the process is repeated until it is clean.

Deployment:
Alert the stakeholders about the deployment reviewed by the client's business analyst to share their comments. This may lead to another iteration till the customer is completely satisfied.

Being Agile with Mendix

Mendix is a low-code development platform that is ideally suited for Agile methodologies. It offers built-in capabilities to run sprints, create user stories, and estimate task velocity–all without the need for a separate application management tool. This contrasts with traditional development environments like Java, where Agile practices are possible but typically require the integration of third-party tools.

Mendix facilitates transparency across collaborating teams by enabling comments and setting contexts that increase the understanding of the receiver and reviewer, improve productivity and reduce ambiguity and chances of misinterpretations.

It promotes better understanding and communication between the stakeholders. The embedded user feedback widgets let users provide instant feedback from within an applica-tion to speed up the resolution process and enable rapid iteration. In what makes it truly agile, it also features built-in app validation through instant app sharing across devices for instant review and feedback.

Indium - Your Partner for Mendix

Indium, a two-decade-old software company with deep expertise in emerging technologies, Agile development, and domain-specific solutions, has perfected Agile practices on the low-code platform Mendix. Our team of Mendix Rapid Certified Developers and QA engineers consistently delivers exceptional customer experiences while leveraging Mendix in innovative and unconventional ways. We offer end-to-end solutions–from design to production and ongoing maintenance–across industries, including Healthcare, Manufacturing, Real Estate, Financial Services, Retail, and more.

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About Indium

Indium is an AI-driven digital engineering company that helps enterprises build, scale, and innovate with cutting-edge technology. We specialize in custom solutions, ensuring every engagement is tailored to business needs with a relentless customer-first approach. Our expertise spans Generative AI, Product Engineering, Intelligent Automation, Data & AI, Quality Engineering, and Gaming, delivering high-impact solutions that drive real business impact.

With 5,000+ associates globally, we partner with Fortune 500, Global 2000, and leading technology firms across Financial Services, Healthcare, Manufacturing, Retail, and Technology–driving impact in North America, India, the UK, Singapore, Australia, and Japan to keep businesses ahead in an AI-first world.

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