**LEGAL ANALYTICS**

**No code & Low code ML**

**What is a no-code machine-learning platform?**

No code machine learning (ML) platforms use visual drag-and-drop platforms to automatically build machine learning models and generate predictions without writing a single line of code. The processes of data gathering, data purification, model selection, model training, and model deployment are all automated by these platforms. Artificial Intelligence (AI) has applications for practically every field, including medicine, law, marketing, education, and project management.

Comparison with Traditional ML and AutoML:

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| Traditional ML | No-code ML platforms |
| Requires skilled data scientists who use programming languages, such as Python, to import, cleanse, and prepare data, perform feature engineering, select data subsets for training, tune the model, and deploy it into production. | Offer a user-friendly interface that enables business users without deep programming knowledge to build ML models. These platforms integrate advanced ML programming capabilities with intuitive tools. |
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| AutoML | No-code ML platforms |
| Automates many conventional ML processes, including data preparation and algorithm selection, but still requires a data scientist's expertise | Designed to be accessible without requiring data science skills. Users can add data sources easily through a graphical interface or drag-and-drop functionality, and the platform automatically handles data cleaning and transformation. |

There are two primary modes of interaction in no-code AI platforms:

1. Question-and-Answer Configuration: In this mode, the platform guides the user through a series of questions about the nature of the problem they are trying to solve. Based on the user's answers, it provides recommendations and options in the form of drop-down menus or toggle switches. For example, if a user wants to create a model to predict customer churn, the platform might ask about the type of data available, the desired output, and preferred performance metrics.

2. Drag-and-Drop Building: The drag-and-drop interface is a visual approach where users construct their AI model by selecting pre-built elements or modules (like data inputs, analysis algorithms, or output formats) from a menu and dragging them onto a canvas. This method is highly visual and often resembles flowcharts, where each element represents a part of the AI pipeline, from data ingestion and preprocessing to model training and inference.

No-code platforms may also include additional features such as:

- \*\*Automated Data Preprocessing\*\*: Tools that automatically clean, normalize, and encode data to prepare it for analysis.

- \*\*Model Training Automation\*\*: Facilities for automatically selecting and training the best machine learning model based on the provided dataset.

- \*\*Model Evaluation\*\*: Easy-to-interpret metrics and visualizations to help users evaluate the performance of their AI models.

- \*\*Integration Capabilities\*\*: Options to integrate the developed AI models into existing systems or workflows through connectors or APIs.

- \*\*Scalability and Maintenance\*\*: Services to deploy models at scale and monitor their performance over time, with minimal user intervention.

**What is a low-code machine-learning platform?**

Low-code platforms stand at the intersection of no-code interfaces and traditional software development methodologies. These environments are characterized by their user-friendly, graphical interfaces enhanced with drag-and-drop features, yet they do not close the door to manual coding and customization. They are constructed with open APIs to facilitate straightforward updates and ensure versatility, suitable for deployment across diverse environments, including both cloud and on-premises setups.

These platforms simplify the app development cycle by supporting the integration of standard code, which can serve to augment or expand the capabilities of the application beyond what is available through the pre-configured elements. This integration aspect is particularly crucial when constructing applications that are central to business operations or directly interface with the consumer. When the goal is to develop applications that are both critical in nature and require a high level of performance, low-code platforms enable the process to move at a quicker pace, allowing for the incorporation of advanced features and functionalities that are custom-tailored to the specific needs of the business or the end-users.

**What are the benefits of these platforms?**

Low-code and no-code platforms have ushered in a new era in the realms of software development and business process automation.

1.Speeding Up Development: The introduction of low-code and no-code platforms has dramatically cut down the time needed to create and roll out applications. These platforms come equipped with ready-to-use templates and intuitive drag-and-drop interfaces, which streamline the design and build stages, thereby facilitating quick prototyping and faster go-live times.

2. Enhanced Accessibility: These platforms reduce the complexity typically involved in developing applications, making the process accessible to a wider audience. They empower business analysts, project managers, and others who don’t have a coding background to partake in the development of solutions, promoting an environment that supports broader participation and creative problem-solving.

3.Reduced Costs: The financial burden of recruiting highly specialized software developers can be mitigated by these platforms. What’s more, the expedited development timeline brought about by these platforms can lower the total expense associated with projects, enabling the more judicious use of business resources.

4.Increased Adaptability and Nimbleness: The agility and versatility provided by low-code and no-code platforms mean that businesses can swiftly adjust to shifts in the market or internal company needs. The ease with which applications can be updated or altered ensures that companies remain nimble, ready to meet evolving demands or seize new business ventures.

**What are the risks of using these platforms?**

1. Restrictions on Customization and Handling Complexity: While low-code and no-code platforms are adept at facilitating the creation of basic applications, they may fall short when it comes to building more sophisticated systems that demand detailed customizations or niche features.

2. Efficiency and Growth Considerations: When it comes to performance and the ability to scale, applications engineered on low-code or no-code platforms might lag behind those crafted through conventional coding methods, particularly when expanded to a larger scale. This could pose issues for organizations that require robust performance capabilities.

3. Platform Dependency: Relying heavily on the proprietary tools and services of a particular platform may lead to difficulties if an organization needs to switch platforms or wishes to have increased control over its software infrastructure.

4. Challenges with Security and Regulatory Adherence: Achieving compliance with stringent security protocols and regulatory standards may prove difficult with applications developed on low-code/no-code platforms. The level of abstraction provided by these platforms can sometimes conceal potential security flaws.

**Do you have an opinion on the use of these platforms?**

Low-code and no-code platforms serve as catalysts for boosting productivity, fostering innovation, and enhancing operational effectiveness. They are of advantage to small and mid-sized enterprises, facilitating swift prototyping, and are advantageous in contexts where time and budget constraints are paramount. Nevertheless, it's crucial for these enterprises to recognize the boundaries of such platforms, notably in scenarios demanding intricate, high-performance, or strictly regulated applications. Striking a harmonious balance between these modern platforms and conventional programming methodologies can optimize business processes.

These platforms find diverse applications across industries:

* Healthcare providers utilize them to craft machine learning models that evaluate the risk of patient readmission using data from electronic health records.
* Financial entities employ these systems to intercept fraudulent transactions as they occur by quickly integrating evolving fraud detection algorithms with little need for coding.
* Retail businesses harness these tools to dissect customer data and categorize customers based on purchasing patterns.
* Educational organizations deploy them to construct adaptive learning environments, allowing for the nuanced analysis of student performance, thus enhancing engagement and the educational journey.
* In human resources, they are used to forecast employee turnover and gauge engagement levels.
* In the realm of customer service, they facilitate the creation of chatbots and virtual assistants, enabling the automation of customer interactions, reservations, and feedback, all without the need for direct human involvement.

The landscape of low-code and no-code platforms is rapidly expanding to include capabilities in machine learning and artificial intelligence, as seen in platforms such as Airtable AI (beta), Appian, Creatio Atlas, Mendix for AI-assisted development, OutSystems AI Mentor System, Pega AI alongside GenAI, and UiPath AI Center.

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