WHITEPAPER

Data opportunities for low-code consultants

By Peliqan.io
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Introduction

In recent years we've seen a tremendous rise in low-code and no-code platforms, not just the platforms itself but also the ecosystems around them. There are now many specialised consultants, freelancers and firms that provide services based on low-code platforms. And that is for a good reason: implementing a solution with a low-code platform is dramatically faster and more cost-efficient than classic software development.

In this whitepaper we will discuss a new type of low-code platforms - data platforms - and why they are so relevant for consultants, freelancers and implementation services companies.

What is low-code

As a quick recap, low-code and no-code platforms are used to build certain solutions without the need of "classic" software development.

A low-code platform will still require coding in a scripting language such as Javascript, C# or Python. However, the amount of code and the complexity of the code is much lower than when building a solution from scratch.

A no-code platform does not require any coding skills, the solution is typically built in a visual manner, for example using a drag & drop interface.

Many platforms today offer the combination of both low-code and no-code, which means you can build a solution without using any code, and if you want more customization you can optionally revert to a few lines of code.

Benefits of low-code

As we mentioned in the introduction, low-code platforms dramatically reduce the time and budget needed to build a solution. For example a web app could be built in hours or days using a low-code platform, while it would take weeks or months to build a web app from scratch.

An additional benefit of low-code platforms is that there is less complexity involved, which makes maintenance much easier. Especially for consultants and service companies it also makes it possible to hand-over the solution to the customer if needed.

Another side effect of less complexity is that there are less risks involved. Classic IT problems have quite a few risks: overshooting the budget, not meeting deadlines, security risks, bugs, risk of building a solution that does not meet the requirements, risks of downtime etc. All of these risks are greatly reduced when using low-code platforms.

Types of low-code platforms

There are many low-code platforms out there to build specific solutions. In this whitepaper we make a distinction between 3 larger groups of low-code platforms:

1. platforms for app building
2. platforms for automation (iPaaS)
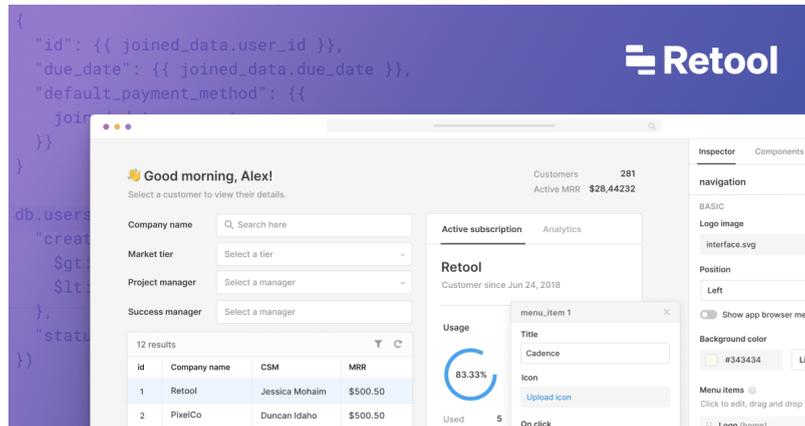**3. data platforms**

We will compare these three groups in terms of following features:

- Building UIs (user interfaces)
- Automation capabilities
- Data connectivity
- Data handling

Low-code *app building* platforms

App building platforms come in many different flavours, including web app building, mobile app building etc. These platforms replace traditional software development.

Examples include Retool, Appsmith, Bubble and many others.

Example: Retool

These platforms are primarily focussed on building UIs, user interfaces to interact with end-users. Some platforms also include automation capabilities, similar to the below automation & integration platforms.

Some platforms have strong data connectivity features, but they do not have data handling features to e.g. easily edit, combine or transform the data.

Feature focus for low-code app building platforms	
Building UIs (user interfaces)	⭐⭐⭐⭐⭐
Automation capabilities	⭐⭐⭐
Data connectivity	⭐⭐⭐
Data handling	⭐

Low-code *automation & integration* platforms

Automation and integration platforms are also called iPaaS, or Integration Platform as a Service. They replace heavy integration infrastructure such as an enterprise bus or middleware.

Examples include Zapier, Workato, Make (Integromat) and many others.

Example: Make (Integromat)

These platforms focus on building workflows to automate certain processes. Workflows can be scheduled or triggered. Often the steps of the workflow consist of calling APIs from connected systems, for example using the Slack API to send a message to a group. iPaaS platforms do not have a strong focus on building UIs, since the primary focus is processes that run in the background.

Automation platforms usually do not have strong data handling capabilities, for example the ability to show the data to an end-user with the possibility to edit data, make corrections, approve records, transform the data, combine data from different sources or visualising the data in charts and dashboards.

Feature focus for low-code automation & integration platforms	
Building UIs (user interfaces)	★★
Automation capabilities	★★★★★
Data connectivity	★★★★★
Data handling	★★

Low-code *data* platforms

A new category of low-code platforms are data platforms. Data platforms have existed for a long time, however they are aimed at dedicated data teams with data engineers on staff. Actually we need to talk about data *stacks*, because often a combination of tools is required to build a so-called "modern data stack". A data stack implements ETL or ELT data pipelines, where the data is extracted from one or more sources and loaded into a central data warehouse or data lake. At some point, the data is transformed to clean it, model it so that the data makes sense from a business perspective etc. Hence the "E", "L" and "T" in ELT.

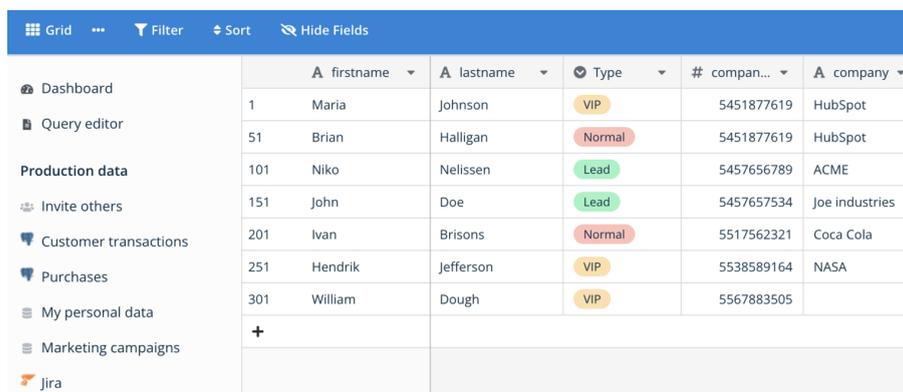| **E**	**T**	**L**
Extract data from sources	Transform the data: clean, combine, rename etc.	Load into a data warehouse or data lake

Operating a full data stack is impossible without a dedicated team and data engineers on board. That's where an all-in-one data platform comes into play. Not all data platforms however are low-code or no-code. In most cases, coding is required using either a scripting language or SQL to solve typical data problems.

A low-code data platform such as Peliqan.io provides all the features to work with data from multiple sources, without the need for coding and without the need for a data engineer. Data can be visualised, combined and transformed in a **well-known spreadsheet interface**. Instead of using complex transformation steps in a data pipeline, data can easily be transformed using formulas, similar to formulas in Excel.

Example: Peliqan.io

Low-code data platforms are uniquely positioned to **combine data from multiple sources**, which is often the most difficult part of a data project. For example, if you have customer data from Salesforce and helpdesk data from Zendesk, it is not easy to combine these data sets

and answer questions such as "How many support tickets do we receive from customers with an annual revenue below x dollars ?". This is just one example of typical "data handling" challenges.

In low-code data platforms it is easy to visualise data in charts and dashboards, but it's also possible to build data apps. **Data apps are interactive apps** where business users can find and see data, approve things, give feedback or make updates. A data app is a custom interface, built for a specific purpose. Thanks to the low-code approach, data apps are built in minutes or hours.

Feature focus for low-code app data platforms	
Building UIs (user interfaces)	★★★★
Automation capabilities	★★
Data connectivity	★★★★★
Data handling	★★★★★

Use cases of low-code data platforms

Low-code data platforms are ideally positioned for use cases where data plays a central role and especially when there is interaction required between the data and a human, what we call "human in the loop" processes.

Data visualisation

Build charts & dashboards, share them and embed them in other applications, webpages or intranets.
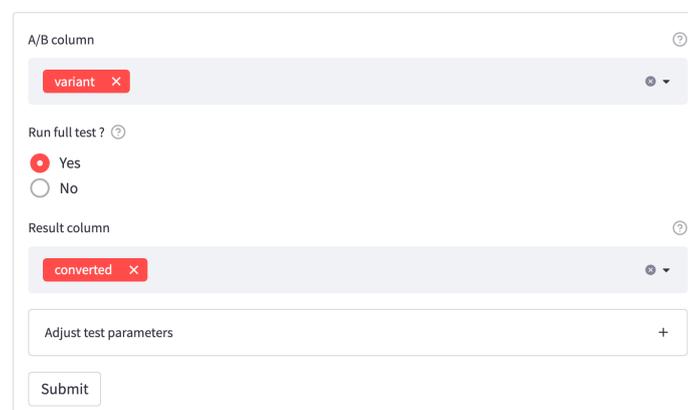

Ad hoc analysis

Set up a user-friendly environment for business users to explore data, and enable them to do their own analysis.

Interactive data apps

Build custom data apps that combine data visualisations with interactive elements so that users can find, edit, compare data, provide feedback, make controlled updates etc.

Custom front-ends

Build custom interfaces on top of existing business applications, so that business users have more efficient access to data.

For example workers in a logistics company need an easy interface on a tablet to update stock from products, without the need to login into a complex ERP system.

Endless opportunities for low-code consultants, freelancers and implementation firms

As a freelancers, consultant or implementation services company that specialises in low-code platforms, you are ideally positioned to help your customers with data challenges. You are the trusted party that can introduce an all-in-one data platform with your customers. Your services can include setting up the connections to the data, setting up "views" for business teams to understand the data, combining data from different sources, and building interactive data apps.

In this white paper we highlighted a few use cases, but essentially any situation where your customers are downloading data into Excel and doing repetitive work, a low-code data platform such as Peliqan.io is the perfect solution to make your customers data-driven!

Want to know more ?
Visit https://peliqan.io or contact us at hello@peliqan.io to learn more
about our partner program and how we can help you to grow your business.