

Boosting the Automated Validation Tollgates in a Big Data System

NDA Case Study

codilime

In this project, we have been cooperating with the tech division of one of the world's leading data-driven consulting companies.

In line with the non-disclosure agreement, we will not disclose our client's name.



Challenge



Our partnership focused on the two major business goals that our client needed to achieve during the project:

- Building an extensible data platform gathering information about companies worldwide and connecting the data relevant to each company from dozens of different data sources.
- Designing and implementing a configurable Web UI (for both internal and external customers) for supporting analytical activities, building the decisionfunnel, browsing company details, and composing detailed comparison reports.



What we delivered

To meet our partner's business and project needs, we provided them with the **following services**:

Data engineering

1

DevOps

2

Test automation

3

UX/UI

4



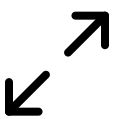
Results & benefits

During our cooperation, we have delivered solutions that strongly benefited our client, including:

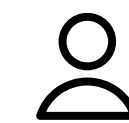
Automation: fully automated tests executed from CI/CD pipelines helped to save time, and money and avoid human errors.



Increased testing flexibility: a distributed E2E testing solution allowed the use of different approaches and testing frameworks by all stakeholders, while generating results in a coherent and transparent way.



Improved user experience: business stakeholders have access to an aggregated, holistic view of the status of the product which enhances the collaboration and decision-making process



Optimized spending: automated and unified data validations were able to detect crucial data defects early and let our customer escalate them with respective data vendors, avoiding time and effort spent on more thorough manual testing of the obtained data sets



The scope of the project



At the very beginning of our collaboration, the client was mainly focused on extending the data platform with new data sources and adding new functionalities and reports to the web application.

However, our team noticed that the root cause for the majority of bugs and time spent on maintenance were issues related to the underlying data:

- providers not following the agreed format,
- missing values,
- non-matching identifiers, etc.

Additionally, the responsibility for executing data-related tests was spread across four teams and the outcomes were never gathered together.



The scope of the project



Based on our past experience with earlier projects, the team recommended a new approach which was accepted by the client.

To gather the required information, we:

- **Conducted workshops** with all the teams in the program to determine existing test catalogs, level of automation, execution models, and reporting approaches which resulted in creating “a golden source of truth”.
- For data-specific checks, the team performed a series of workshops, recommended a tool that would provide the highest ROI for the project, and **mentored relevant stakeholders**.
- **Applied a “fail fast” approach** to obtaining immediate feedback about the changes introduced.



The scope of the project

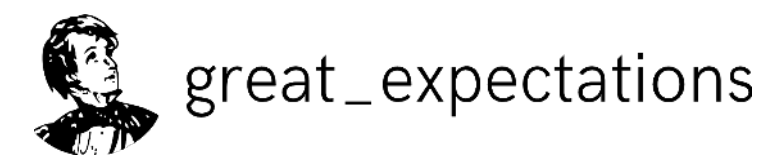


As a result of the above workshops, we gathered feedback that allowed us to **successfully fulfill the project's requirements**. We:

- Implemented an engine able to execute tests gathered in many suites, written using different test frameworks.
- Integrated six different test sources developed by internal and external teams.
- Built a single source of truth and control center allowing for storage, maintenance, execution, and reporting of test case results.
- Introduced an Allure-based visual tool for the business stakeholders to monitor the application environments' health in all environments that could be used as a solid base for educated **release Go/NoGo** decisions.
- Set up automated toll gates at different stages of data processing to measure quality constraints and stop the process if they are not addressed.



Technologies and tools



About CodiLime

codilime

Since 2011, CodiLime has been the engineering partner of choice for semiconductor companies, networking services, telecom services, and software solution providers.

We have come a long way – from a startup to a company that hires more than 350 top-notch software developers, network engineers, DevOps experts, and solution architects. **We focus on five N.E.E.D.S. - Networks, Equipment, Environment, Data and Security.**

We aim to link engineering talent with business domain expertise. Everything to provide our clients with delivery excellence and custom-tailored solutions.

Check out what our partners have said about us and how they evaluated our cooperation.

[Go to about us page](#)

