Case Study

Online Trading Platform

AltexSoft helps a fintech startup reshape online trading through complete business analysis, UX/UI design and engineering
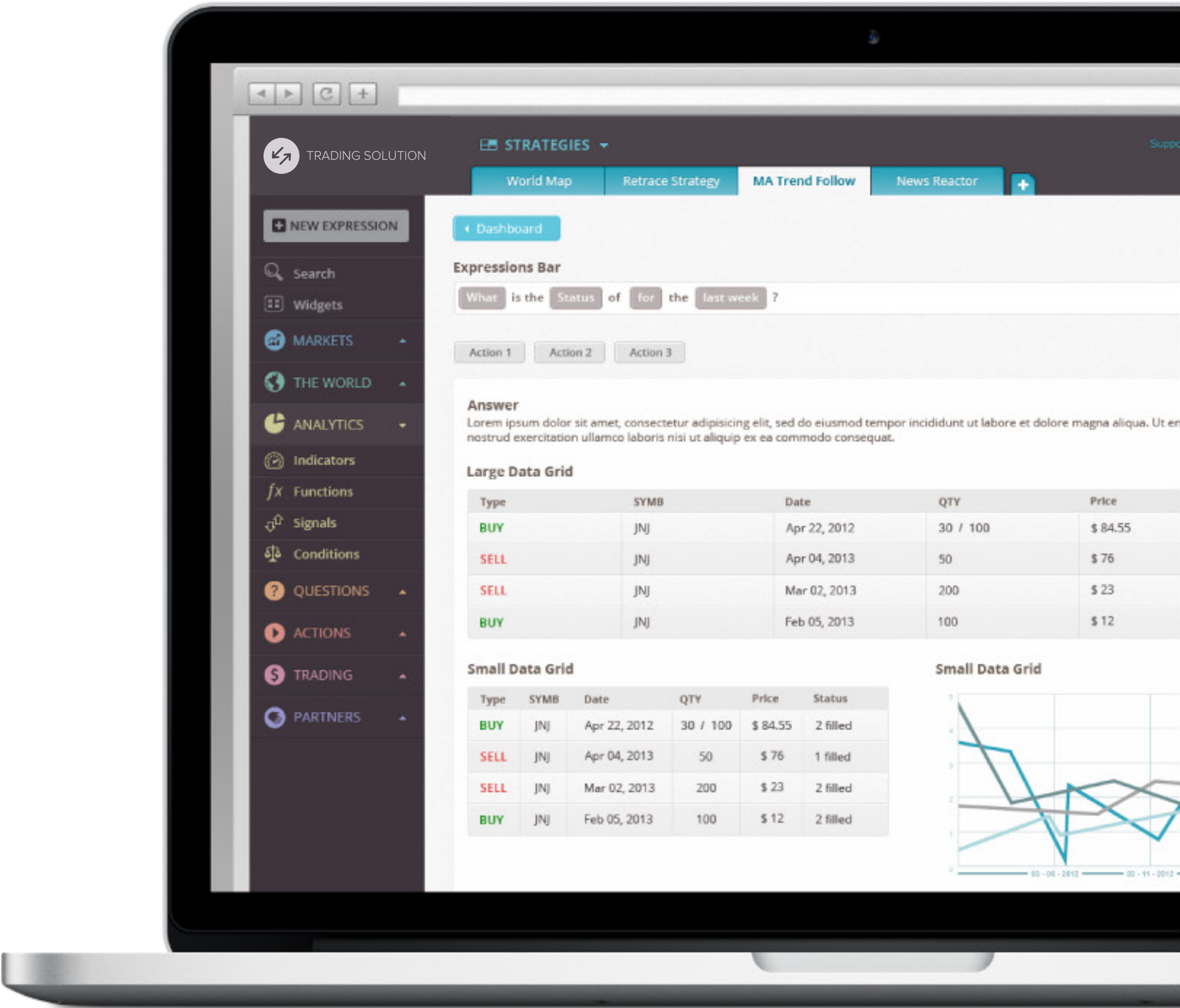
Finance, Cloud Computing, Microsoft Azure, AngularJS, Data Visualization, UX Design

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Background

Having a strong background in finance and technology, the client saw a favorable business opportunity in creating an innovative online trading and research solution for retail investors, brokers and analysts.

His idea was to simplify the financial asset trading, research, risk management, and compliance through advanced software solution. The novelty of the product lied in an opportunity to perform complex system manipulations through a smart search field (similar to Wolfram Alpha, a computational knowledge engine). For example, the user could find out the weather forecast for a specific region and trade a grain futures contract based on this information. And all this could be done by simply inputting the corresponding command into the search field.

As the client was handling the backend engineering on his side, AltexSoft was contracted to design and implement the system frontend to enable easy interactions with the tool.

Business Challenges

The product's core feature, an intelligent "Expression Bar", was designed to be an all-in-one command center. Functioning similar to the Visual programming languages, it had to recognize and perform various commands through Semantic Web and Native Language Processing.

For example, a user could start typing "what was the unemployment rate in New York in 1986?", and the system would automatically tag the keywords and process the query in order to show the requested information in a simple, visual form. More complex queries would be processed in a similar manner, but displayed in close connection to reveal the dependencies between different variables.

Hence, the major endeavor for AltexSoft was the development and implementation of the product's intricate business logic. Among the major issues we had to tackle were:

1.
Mapping out the project specifications and technology approach

2.
Visualizing the concept through prototyping and UI design

3.
Implementing frontend UI and underlying system logic

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Value Delivered

The product went through 3 development stages: requirements specification, UX/UI design, and software engineering. The project has been implemented into a successful MVP, passing through the following milestones in process:

1. Comprehensive IT consulting and requirements finalization

Operating with the limited materials, concept document and rough sketches provided by the client, the team had to dive deep into the project from the earliest stages of the development. Regular communication with the client and our own proactive position in defining the details allowed us to get an in-depth understand of the product's complex logic. Clear project specs and the team's deep involvement were crucial for the further process as they helped eliminate the waste of engineering resources in the long run.

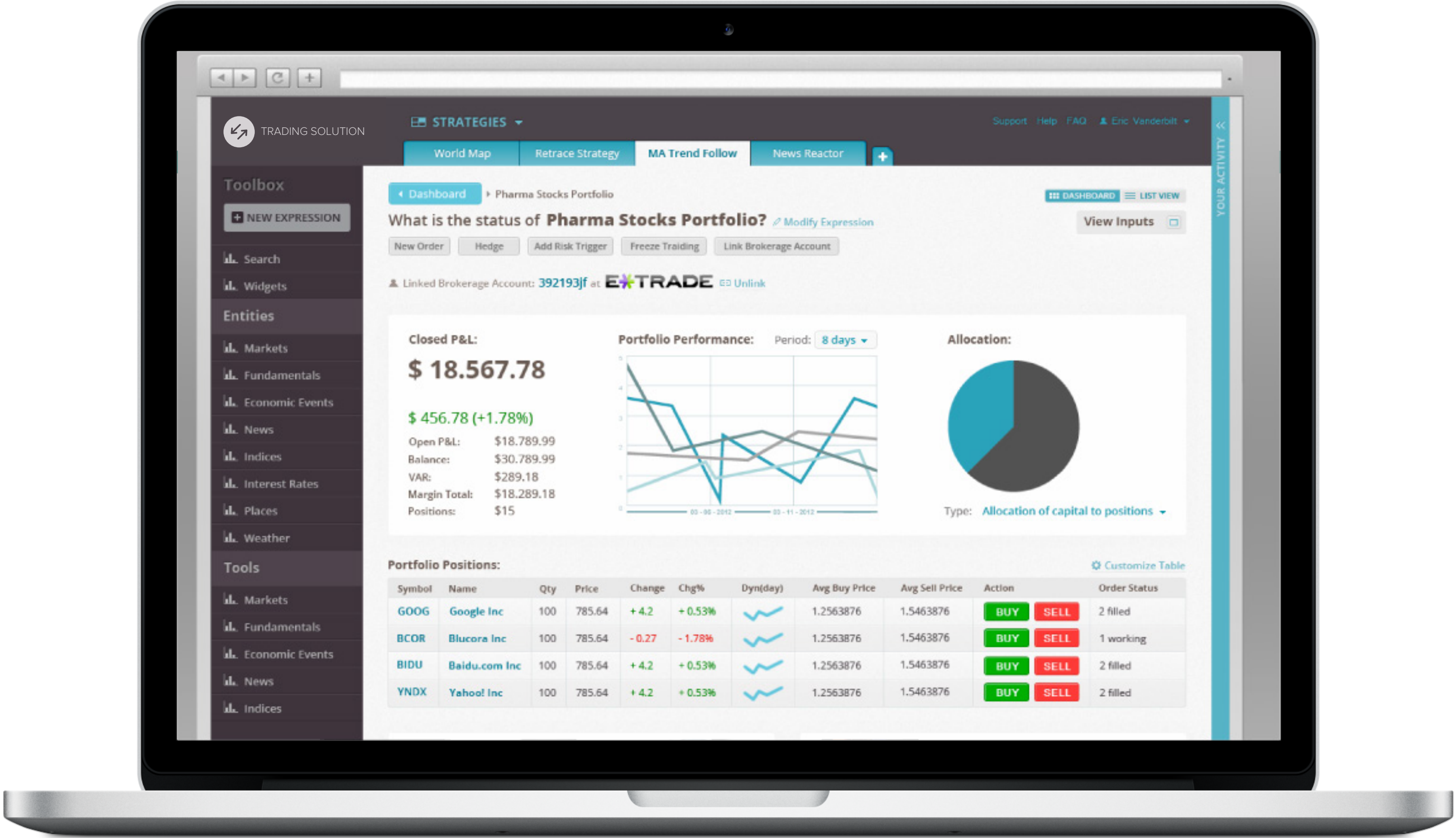## 2. Detailed wireframes and modern design development

While outlining the product vision with the client, our UX experts created more than 50 different meticulously designed wireframes. The user experience was tailored to the client's requirements as well as industry standards. Every element and interaction were documented to complete the picture. The UX prototypes were then used as a basis for the UI design. The team have successfully created simple and professional product design, despite its intricate business logic and numerous data-heavy elements.

3. Frontend UI and product logic engineering

Based on the backend infrastructure, provided by the client, we built the tool's web interface. Interactive dashboard elements, such as drag and drop module within the "Expression Bar" research data visualization, were implemented using JavaScript frameworks and widgets. The product interface had complex layout and could function in both dashboard and list view. Thus, the end product was a full-fledged Proof of Concept.

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Home Page
Online Trading Platform

Approach and Technical Info

The project was handled by a team of four. It took 7 months to finish
the above-described scope of work.

The team used Balsamiq wireframing tool to finalize the product UX.
The technology stack included:

C#, ASP.Net MVC, AngularJS, Highcharts (charting API),
ASP.NET SignalR library, Microsoft Azure.

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