#### **ABOUT THE CLIENT**

BroadStreetLagos is a part of Applied Logic Limited, Nigeria that was developed with an aim to generate structured and valuable data or Meta data for the financial sector. This data was generated by the application of computational finance techniques that could be recycled, reused or licensed in the capital markets. The BroadStreetLagos website presents market trends and analysis in a structured and managed format.

This website presents a wide range of fundamental as well as price information on almost everything that is related to the financial sector in the form of bonds, trusts, equities or instruments. It is an online portal for tradable securities in one of Africa's largest finance markets.

The website was developed as a solution to encounter the unstructured data and analytics that abundantly available in the Nigerian Stock market. Residing in an age of digitization, it is no longer an effective solution to just have data or reports without being backed by an effective analytic strategy in place.

#### GOALS

The Applied Logic client was a provider of fundamental research on market trends and price information for one of the largest markets in Nigeria. They dealt with a lot of incoming data from the stock market or from other related financial institutions. The client was looking for a technology partner who would assist them in streamlining and managing all their incoming financial data, so that it can be displayed on the website in a structured format. They had a specific set of goals for this project, which were duly acknowledged by the consulting as well as the development team at Clavax. The goals of the project are highlighted below:

- To generate graphs for trading details, stock changes, one year stock evaluation, Market Capitalization, Dividend and Yields for companies trading in the Nigerian market.
- Organize and structure, before the entire set of incoming data is to be displayed on the site.

## **BROADSTREETLAGOS**

AN APPLIED LOGIC WEBSITE

#### **INDUSTRY**

Banking and Finance

#### **PARTNER**

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- Managing the message board of partner companies.
- Regulating and displaying advertisements from client companies on the BroadStreetLagos website.

# Technologies Used

- PHP
- MYSQL
- JAVASCRIPT
- EXCEL INPUT

- CSV INPUT
- **GD LIBRARY FOR GRAPH GENERATION**
- **AUTHORIZED.NET (PAYMENT GATEWAY)**



#### **CHALLENGES**

The Applied Logic client was one of the initial clients from the banking & finance industry.

Their requirement involved the creation of a website that would be a comprehensive onestep solution to investors or bankers working in the Nigerian Stock market. They had approached us with a specific set of goals to develop a we bsite for the Nigerian Stock Market. The challenges encountered by us while developing the website are mentioned as follow

## **Data Manipulation**

One of the most significant challenges of the project was to manipulate 4 pages of data received in an Excel sheet and converting it into a structured format, across the following financials:



- Income Statement (Proportions and Growth Percentage)
- Balance Sheet (Proportions and Growth Percentage )
- Performance Indicators
- Adjustments for Splits

## Message Boards

We had to display news and information of client companies in the form of headlines, besides displaying their important announcements through a message board.

#### Company Profiles

Adding profiles along with other key statistics form partner companies on the website required us to handle huge amounts of data on an everyday basis.



#### SOLUTION

The development team at Clavax Technologies was able overcome the aforementioned challenges to develop a highly effective website to display financial data coming in from multiple sources across various industry verticals. Listed below are some of the solutions to the challenges faced while developing this BroadStreetLagos website:

## Data Manipulation

We implemented the PHP graph library – GD Library – to create graphs depicting the changes in the stock markets, which involved the analysis of key statistics like:

- Valuation Measures

- Cash and Share Dividends

- Return on Equity and Assets

- Stock Price History

- Share Statistics

## Cron Jobs

- Automatic cron jobs were created for performing automatic manipulations on the incoming market data.
- Client emails on the website were also handled using cron jobs.
- A mobile application is being developed that uses APIs developed for the website, while widgets are used for displaying the latest market trends.
- The website also features Curl, an API from INET Fronteer, to provide real time market statistics, analytics, news and charting to the website visitors.

### RESULTS

Applied Logic has been successful in developing a website using scrum methodologies that provides market data, statistics, analytics and news all at one place. Some advantages of the BroadStreetLagos website are highlighted as under:

- The site offers information gathered from extensive market research from various sources, which enables clients, investors and users in making informed investment decisions.
- A detailed account of the Nigerian Stock Market with their historical prices, a basic chart to compare volume with price at various intervals.
- The website features information related to all sectors of the Nigerian economy right from agriculture to technology to the travel and tourism industry.
- Client partner companies can place their advertisements on the BroadStreetLagos website as well.

