

Case Study



ONLINE STOCK BASED FINANCE NETWORKING PORTAL



“Idhasoft is a global world-class organization providing best-of-breed localized business and technology solutions, with continuous innovation and quality backed by best-in-class people”

Client Requirement

The site will be an exhaustive financial community website for investors and traders to view dynamic real-time statistics online, offering up-to-the-minute information, news, and user opinions on the current happenings in the stock market.

The incorporation of streaming videos with Sound ON/OFF feature to alert users about possible advantages and windfalls of certain stocks.

The site will offer facilities like quoting, charting, managing portfolios and schedules along with a range of premium services that users can benefit from.

The site will encourage users to create fantasy portfolios through which they can participate in various contests hosted by the site.

In addition to the business-related attributes, the site will also focus on enhancing the users' online trading experience through numerous convenient features like instant messaging, blogs, a learning section and a store, among others.

The site will be expected to offer a 'next generation' viewing experience through implementation of new technologies and web usability principles.

Challenges

Incorporating and managing up-to-date information, news, statistics and related data on the backend through RSS feeds.

Developing a sturdy & dependable framework to support the real-time updating of content on the site.

Allowing the site to handle millions of users at the same time without reduction in performance.

Incorporating advanced, cutting-edge web usability principles through AJAX while developing numerous features designed for enhancing the users' community networking experience.

Harmonizing the simultaneous execution of various integrated features and options while maintaining consistent load balance.

Ensuring safe and secure transfer of data while integrating RSS feeds.

Technologies Used

. NET (Visual Studio . NET)2005	A suitable managed code development environment for handling the extensive project.
Windows 2000	Sturdy and stable operating system with high level functionality for online development.
MS-SQL 2005	Versatile, scalable, secure and low-maintenance DBMS.
Rational Rose Enterprise Edition	Integrated tool best suited for modular architecture and iterative development of software.
Microsoft VSS (SCM & Backup)	Ideal client/server application providing stratified storage system of files.
Dream Weaver	Versatile web development tool with exhaustive support for CSS, JavaScript, and various server-side.

Manpower

Project Leader	1
Developers	5
Designers	2
Quality Assurance Testers	2

Planning

The following four-tier development approach was adopted to equip the site with numerous features and functionality mentioned before:

- o The Database layer containing MSSQL Server Database, Tables, stored procedures and so on.
- o The Data Access layer containing the Data Access DLL responsible for accessing data from database.
- o The Business Layer DLL consisting of all business logic procedures for modules like User Profiles and Blogs etc.
- o The User Interface Layer which forms the Graphical User Interface of the website.

Architecture

Developed in C#.NET, the Business Layer DLL consisted of all business logics for modules like Offices, Properties, Maps etc and they were compiled to a single Business DLL that directly interacted with the UI layer. DLL consisted of all Business logics used for respective modules like Save [Add/Update], Delete, Get single object, get multiple objects for listing and were designed to be capable of handling many more logics which were not related to the database. The Data Access layer contained Data Access DLL responsible for accessing data from database and built a generic query for insert, update, delete and select, depending on the business class. All business layer components were coded to use this DLL for data accessing process from database. Stored procedures were used only for complex retrieval of data from multiple tables and were entirely avoided with conditional syntax to ensure smooth performance of the website. The UI layer was kept free of any business logic with images, applications and data being called from their respective servers. Sub-domains were used for the different areas of the website to guarantee scalability.

Development Highlights

Intensive usage of pioneering technologies like PODS through the implementation of advanced AJAX resulted in a feature-rich site providing a high level of customization. Examples included the provision for selecting different layout themes, with 'drag-and-place' page content which was auto-saved by the site every time the user logged in. The site continuously displayed dynamic content through the inclusion of RSS feeds, which involved interacting with third party providers, parsing a variety of content, queuing and presenting this content to users. Streaming video content complete with Sound ON/OFF feature was provided to alert users about stockrelated information. These videos were stored and streamed through 'Userplane'. A robust framework ensured smooth performance despite the heavy use of brand new technologies employed through Advanced AJAX, among others. Web usability guidelines were strictly followed during development and the interface was made easily navigable through judicious use of AJAX, CSS and HTML controls. The site was developed and fully functional within a span of 6 months.

Client Feedback

“This was a large project and GMI performed beyond even our most ambitious expectations. We were hesitant to use an Indian firm for such a major project, but GMI showed professionalism and a staff that was eager to please us and easy to communicate with. Language was not an issue at any point, as the entire GMI staff speaks excellent English. I was also impressed that they were ALWAYS willing to make time during OUR business hours to chat online or on the telephone to make sure that everyone was on the same page on the project. An A+ firm that we have now signed an ongoing contract with, and if you work with them then you will most likely do the same.”