



**GREY MATTER INDIA TECHNOLOGIES
PRIVATE LIMITED**

www.greymatterindia.com

CASE STUDY

**HEALTHCARE BASED SOCIAL
NETWORKING PORTAL**

CLIENT REQUIREMENT

The client envisioned a composite and comprehensive social networking portal with an exclusive focus on allowing people interested in fitness, slimming & body toning to come together. Registered users could use this site to find other users with similar fitness related goals and collectively achieve their goals through the sharing of experiences and knowledge. Creation of an accurate profile and management of friend lists based on criteria like diet, fitness, activity, gender etc... would be available to users. Photo uploads, mail, blogs and fitness forums would be made available to facilitate the sharing of tips, exercise modules, diet information etc... The site would be easily navigable with high browser compatibility and would provide users with numerous options to safeguard their privacy and the security of the content they upload.

CHALLENGES

- Providing all the benefits of a social networking website coupled with an exclusive focus on slimming, body toning and other fitness related goals culminating in the formation of a fitness centric community.
- Creating, managing and implementing the selection criteria driving the selection of users based on similar fitness goals.
- Providing a robust framework capable enough to bear the load of thousands of users smoothly accessing a comprehensive community portal simultaneously.
- Sustaining good load balance for a feature rich website that is available 24x7.
- Incorporating web usability principles in the website design so as to ensure easy navigation for all types of users and enhancing the user's community networking experience.
- Ensuring user privacy and safeguarding their content.

TECHNOLOGIES USED

PHP (Server Side Language)	Most appropriately suited to create dynamic web pages. Enables fast extraction of data out of a database for presenting it on the web page
JavaScript and AJAX (Client Side Language)	(Client-side Language) Cross browser support & faster loading time with light web pages that require no plug-in downloads. Scalable Javascript based controls to provide flexibility and enhance user experience and involvement.
MySQL Engine	A versatile low maintenance database management system which acts as a cross-platform compatible database component of the LAMP platform.
Red Hat Linux	License free, sturdy platform with open source code for extensive customization and with powerful multitasking abilities.
Apache Web Server	Server Ideal for serving static as well as dynamic content on the web in a safe and secure manner. Supports a variety of features while offering extendable core functionality

MANPOWER

Project Leader	1
Developers	4
Designers	2
Quality Assurance Testers	2

PLANNING

The enormous structure of the website and the challenges involved necessitated the adoption of a four-tier approach that consisted of

- MySQL Server Database, Tables, stored procedures etc... incorporated within the database layer
- Conversion of data between incompatible type systems in databases and accessing data from the database respectively; performed within the Interface and the Database Abstraction Layer.
- All the business logic procedures for modules such as User Profiles, Invitations, Forums and Blogs etc... forming the Business Logic Layer.
- The GUI of the website formed by the User Interface layer

ARCHITECTURE

The website was mainly characterized by online networking which entailed a PHP based design approach involving MySQL Server. PHP was used to develop modules like User Profiles, Invitations, Forums and blogs such that direct execution from the UI layer was possible and the corresponding PHP files consisting of the business logic for respective modules like Save (Add/Update), Delete, Get Single Object, Get Multiple Objects for listing were designed to possess the capability to handle much more logic not related to the database. Effective access to the database in an object oriented context was implemented using an interface translating the object logic to relational logic so as to communicate with the relational databases in an object-oriented manner. Access to the data base was enabled through the creation of an intermediary abstraction layer. Only the complex retrieval of data from multiple tables was facilitated through stored procedures and everywhere else conditional syntax was implemented to ensure seamless performance of the website. Images, applications and data were called from their respective servers keeping the UI layer free of any business logic and scalability was guaranteed by implementing sub-domains for various areas of the website.

DEVELOPMENT HIGHLIGHTS

A centralized access to numerous fitness monitoring statistics such as calorie counter, recipes, blogs under one roof etc... was provides by equipping the site with a robust architecture. An enhanced user experience and extensive personalization of the site was conceived through the design of customizable viewing options and an extensive database of statistics and graphs was incorporated to provide systematic weight loss tracking details. Extensive pre-development research as invested into making the entire database conform to the USDA food standards. Web usability guidelines were strictly adhered to during the development and the interface was easily navigable through the judicious use of AJAX, CSS and HTML controls. Search Engine Optimization activities were regularly resorted to with a view to ensuring high visibility for the site over the internet. The site was developed and fully functional within a span of 5 months.

CLIENT FEEDBACK

"The most professional and high quality partner we have encountered so far. GMI has built a successful social networking portal for us and we can safely say that they are the best in the field. Outsourcing at its best."