Virtual Private Network Java Project

Virtual Private Network is a networking application developed in Java as a final year project. It aims at the extension of private network across a public one such as the internet. Virtual Private Network (VPN) is developed by setting up point-to-point virtual connection through traffic encryption, dedicated connections or virtual tunneling protocols. This project helps to develop the same connection across internet as a Wide Area Network (WAN) link between websites.

Below, I have briefly introduced the modules and features of Virtual Private Network in Java along with its security mechanism. The complete source code, project report, documentation as well as ppt of this project can be accessed from the download links in this post.

About Virtual Private Network System:

Modules Overview:

Virtual Private Network can be considered as three modules project: administration module, marketing module and training module. The administration module has been defined to monitor office and staff details. The major duties of administration module are to take staff attendance, add clients, train the projects, add course details, etc.

Marketing module is designed to maintain the marketing part of the software. The last module or training module is made to take care of technical sector such as software testing, networking, call center and J2EE training. Each of these three modules is interconnected and there must be a fast and efficient link between all the modules.

Security Mechanism:

Here's a brief overview of the security mechanism in Virtual Private Network Java Project. In order to prevent the disclosure of private information in the system, there must be certain concrete security provision. So, this networking software allows only the authenticated or certified remote access to the system.

The Virtual Networking system ensures the security in the system by utilizing tunneling protocol via security procedure such as encryption, and other. Confidentiality, authentication

and integrity are the measures of VPN security model. You can find the detailed description regarding security in the documentation of this project.

Features:

- The project provides the facility of inclusion of new clients. This feature is termed as Scalability. This feature of the project helps in the future expansion of company or organization. Without this kind of feature, new clients couldn't be added to the networking system.
- Keeping the sudden crashing down of system, it uses remote back up of server. In VPN of an organization, a large number of files are created every day and each of them has a great significance. So, the VPN system creates a remote backup serverfor every request from client to server and vice-versa.
- It monitors the activities of each and every client or individual connected with VPN using remote monitoring system. This feature of project ensures the privacy and security within the network. Moreover, it prevents the network from misuse.
- As the certification in any network or VPN is an essential component, this Virtual Private Network provides certification facility in system. During the interaction of two or more LAN (Local Area Network), certification is required to ensure security of system. In order to introduce certification in the system, it may need certain external software.
- Sometimes clients may be uncertain whether a sent data reached the desired destination or not. In order to ensure successful data transfer, it gives backs the acknowledgement signals.

Screenshots:
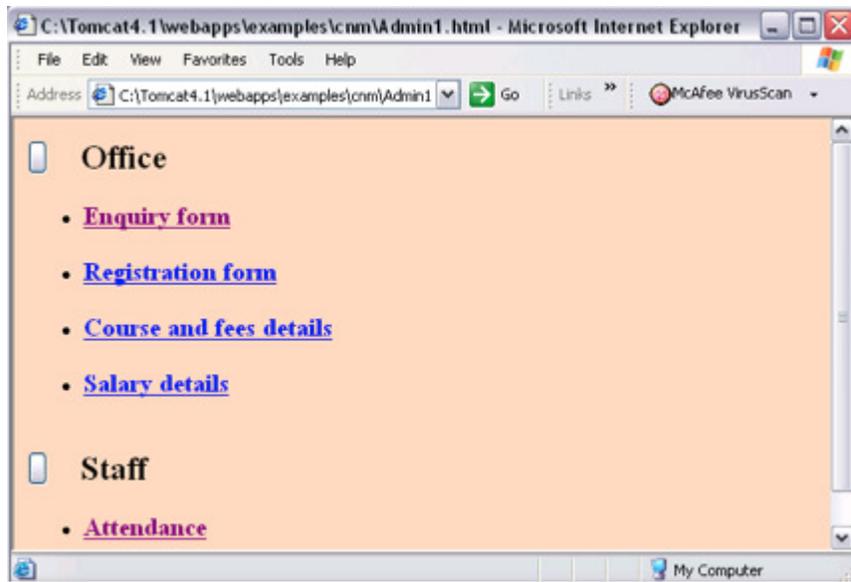
Admin Page

Enquiry Form

Add Client
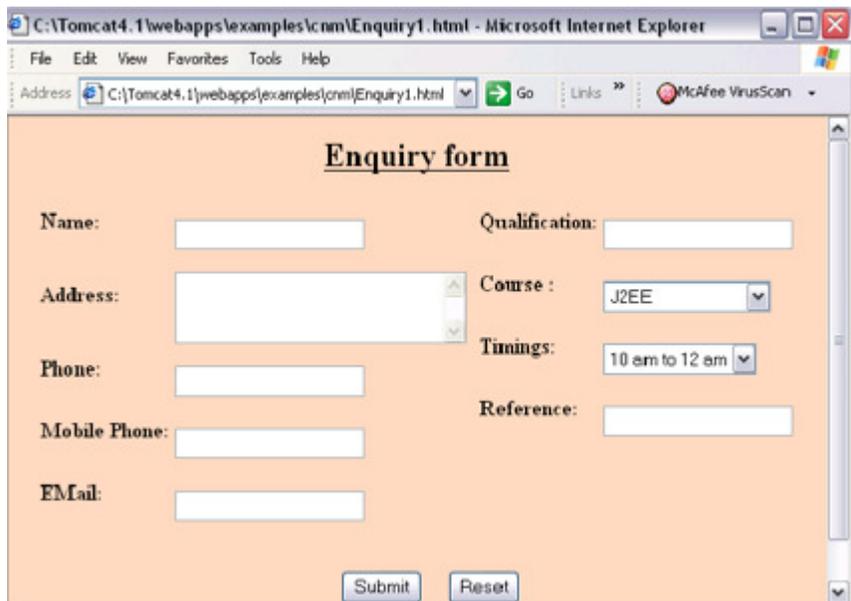
Also see,

Client Server Communication System
Web Server Management System
More Java Projects

Conclusion:

The Virtual Private Network software developed in Java establishes a VPN system in an organization with full privacy and security. In this technological world, private networks in offices, organizations and companies are the best means to share information. Hence, this VPN project has a good scope; future enhancements can be done in the system by adding new modules.