A key area in security research and practice is authentication, the determination of whether a user should be allowed to access to a given system or resource. Generally, the most common and convenient authentication method is the traditional alphanumeric password. However, their inherent security and usability problems led to the development of graphical passwords as an alternative. To date, there have been several graphical password schemes, they have overcome some drawbacks of traditional password schemes, but most of the current graphical password schemes remain vulnerable to spyware attacks.

Commonly, a spyware is a software that, from a user’s perspective, covertly gathers information about a computer’s use and relays that information back to a third party. Spyware has gradually become one of the most common security threats to computer systems. Password collection by spywares has rapidly increased. However, how to protect passwords effectively against spyware attack continues to be a problem. Observing that a practical spyware attack is done by an automated program, author proposes a new approach –“CAPTCHA”.

CAPTCHA (Completely Automated Public Turing tests to tell Computers and Humans Apart) is a program
that generates and grades tests that are human solvable, but beyond the capabilities of current computer programs. The robustness of CAPTCHA is found in its strength in resisting automatic adversarial attacks. The proposal creates an innovative use of CAPTCHA in the context of graphical passwords to provide better password protection against spyware attacks.

In this paper, author has proposed a new authentication scheme combining graphical passwords with text-based CAPTCHA. The scheme is easy for humans but makes it almost impossible for automated programs to harvest passwords. The novel scheme is friendly for legitimate users, while simultaneously raising the time and computer capacity cost to adversaries by several orders of magnitude and experiments showed its effectiveness.

CAPTCHA stands for “Completely Automated Public Turing Test to Tell Computers and Humans Apart”. The P for Public means that the code and the data used by a CAPTCHA should be publicly available. A simple example of a CAPTCHA test is shown in Figure 2.1.

Figure-2.1 Simple example of a CAPTCHA test
Users are requested to type the text displayed in the picture, "smwm" in the example. Advanced examples, like the one in Figure 2.2, ask the user to identify an object, a person or an animal.

![Image of CAPTCHA](image)

**Figure-2.2 Ask user to identify image**

CAPTCHA is colorful images with distorted text at the bottom of Web registration forms. CAPTCHA is used by Yahoo, Hotmail, PayPal and many other popular Web sites to prevent automated registrations, and they work because no computer program can currently read distorted text as well as humans can.
Introduction to Document Server

This secure document server provides fast and convenient access to documents from anywhere using a standard web browser. Document full-text search, real-time image thumbnail generation, HTML document preview and easy user management with file permissions is included.

This Server revolutionizes access to documents. Users can access their documents directly from the Internet using a standard web browser.

This Server provides enhanced security for document storage. Three encryption methods, including industry standard 128-bit DES encryption, provide flexibility...
between performance and security. Access to this Server is verified through a personal login and password. Communication between the Client and server is encrypted as well. Access though the web browser supports SSL.

This Server is built upon the MS-SQL database management system, which is used to store documents and provides fast content search. Users can preview document content online (DOC, XLS, etc.) without downloading the entire file to their computer and using the application the document was originally created in. Real-time generation of image thumbnails is provided for graphics files (.JPG, .GIF, .PSD, etc.), so finding the image you are looking for is extremely easy.

This Server eliminates the problem with distributing confidential files via e-mail by controlling access to sensitive documents published on the Internet. Its Internet-centric design and easy web administration makes it a perfect low-cost document management solution for small-to-medium sized organizations.
Our Aim:

The proposed project will be developed in .net Framework as a web application using c# & asp.net technology. The modules of the project will be as follows

1] User Registration by using CAPTCHA
2] User Login by using CAPTCHA
3] User Profile display
4] User Profile Edit
5] File Uploading and downloading
6] Searching of uploaded documents
7] Preview of files before downloading
7] Server based file management
8] Searching Other Users
9] Sending Access request
10] Accepting Access Request
11] Downloading Cryptography tool for file security
12 ] Uploading encrypted Documents.
13 ] IP Blocking for invalid passwords

Technologies -

Platform: Windows Server 2003
Application Server: IIS 6.0
Development tech : ASP.NET with C#
Components: DLL assemblies
Database: MS SQL Server