|  |  |  |
| --- | --- | --- |
| **Tech Saksham**  Final Project Report  **WEB DEVELOPMENT** |  |  |

**“GRAPHICAL PASSWORD AUTHENTICATION SYSTEM”**

**“RGUKT-SRIKAKULAM”**

|  |  |
| --- | --- |
| **ROLL NO** | **NAME** |
| S170178 | MAMMULA ARCHANA |
| S170134 | VANGAPANDU SAI SIREESHA |
| S170188 | SADHANALA DEVI NAGARJINI |

|  |  |
| --- | --- |
|  |  |
|  | Mr. S.S. Ahmed Ali |
|  | Master Trainer |

**ABSTRACT**

A Graphical Password is an Authentication System that works by having the user select from images, in a specific order, presented in a Graphical User Interface (GUI). For this reason, the graphical-password approach is called Graphical User Authentication (GUA). The most common computer authentication method is to use alphanumerical usernames and passwords. This method has been shown to have significant disadvantages. For E.g. Users tend to choose passwords that can be easily guessed. On the other hand, if a password is difficult to guess, then it is often difficult to remember. To overcome this problem of low security, Authentication methods are developed by researchers that use images as password. In this research paper, we conduct a comprehensive survey of the existing graphical password techniques and provide a possible theory of our own. Graphical password schemes have been proposed as a possible alternative to text-based schemes, by the fact that humans can remember pictures better than text; Pictures are generally easier to be remembered or recognized than text.

**INDEX**

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Table of Contents** | **Page No.** |
| 1 | Chapter 1: Introduction | 1 |
| 2 | Chapter 2: Services and Tools Required | 2 |
| 3 | Chapter 3: Project Architecture | 3 |
| 4 | Chapter 4: Architecture Blocks Detail Working | 4 |
| 5 | Chapter 5: Project Budget | 5 |
| 6 | Conclusion | 6 |
| 7 | References | 7 |
| 8 | Code | 8-14 |

**CHAPTER 1**

**INTRODUCTION**

* 1. **Overview**

If we point out that there are three major areas where human-computer interaction is important authentication , security operations, and developing secure systems. Here we focus on the authentication problem. User authentication is a fundamental component in most computer security contexts. Studies showed that since user can only remember a limited number of passwords, they tend to write them down or will use the same passwords for different accounts. To address the problems with traditional username-password authentication, alternative authentication methods, such as biometrics, have been used. In this project, however, we will focus on another alternative using image as passwords.

* 1. **Features**

Remembering numerous passwords from various different sites can be difficult for a user. So to provide some flexibility we can provide users a graphical password authentication system where instead of creating a password a user has to select graphical objects in a particular order to keep it as their password.

* 1. **Advantages**
* The security of the system is very high.
* Graphical password schemes provide a way of making more human-friendly passwords.
* Dictionary attacks and brute force search are infeasible..
  1. **Scope**

It can be used everywhere instead of text-based password. We can increases the security of this system by increasing the levels used, the number of tolerances squares used. Presently there are many authentication systems but they have their own.

* 1. **Future Work**

In the future we have to add voice based authentication system for the blind people. And also we have to add the colors authentication system along with the Graphics and text based authentication system for providing more security to our data.

**CHAPTER 2**

**SERVICES AND TOOLS REQUIRED**

**2.1 Services Used**

Graphical password authentication system can be used in various banking, shopping websites, email system etc. Graphical password authentication system can be time consuming, can need more storage space than text password and be prone to shoulder surfing attacks.

**2.1.1 Liberty Profile**

The liberty profile for a graphical password authentication system could vary depending on the specific implementation and requirements. However, some common considerations might include the types of images or visual patterns used, the sequence or order in which they are presented, the number of images in the sequence, and any additional security measures such as user verification or multi-factor authentication.

**2.2 Tools and Software’s used**

**Software Requirements**

• Operating system Windows

• Domain: Full stack

• Backend: PHP

• Database: MY SQL (XAMPP server)

**Hardware Requirements**

System: 7 th Generation

INTEL.i5 Hard disk: 128 GB+

1TB HDD storage

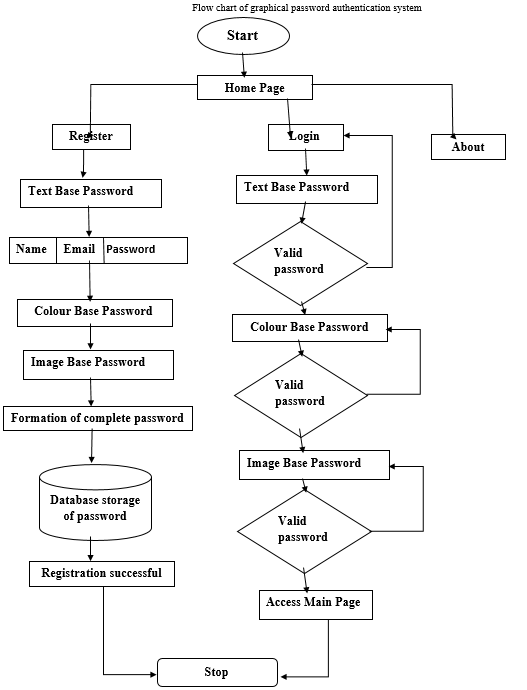
• Ram: 4GB/8GB

• Operating system: 64-bit

**CHAPTER 3**

**PROJECT ARCHITECTURE**

**3.1 Architecture**

****

**CHAPTER 4**

**ARCHITECTURE BLOCKS DETAIL WORKING**

**4.1 Blocks**

**MVC Architecture**

The architecture chooses how the framework should work. Request response time, page loading time, Ability to deal with the various requests, and so on are characterized by the design of the web application. In this manner, for better execution, it is indeed to utilize the best design. Here it utilizes the MVC architecture (Model-View-Control Architecture). MVC Architecture implies Model-View-Controller architecture, which is an example architecture plan for programming projects.

**System Architecture**

On the border of the client, the user requests the registration. The Registration process includes two encryptions. One for text password, other for Graphical Password. Graph Pass was divided into 4 slices. Encryption takes place in each slice. The user-friendly graphical user interfaces make the task easier. Accordingly, the client doesn't have to think about the programming language.

The framework strictly follows the rules of Model view controller design (MVC architecture). MVC Architecture implies Model-View-Controller architecture, which is an example architecture plan for programming projects. As well as it needs a more grounded database that can hold a colossal measure of information, Here we utilize the SQL worker for storing all the client information. This is a web-based application that maintains a client-server architecture. Different devices will be connected on the client-side that communicates to the server with the help of the internet/cloud. When the client sends a request to the server, the server returns the corresponding data as the response.

Client-Server Architecture is a processing model in which the worker has, conveys, and oversees the greater part of the assets and administrations to be devoured by the customer. This type of architecture has at least one customer PCs associated with a server over an organization or web association. This framework shares figuring assets. Client/server design is otherwise called a systems administration processing model or customer/worker network since every one of the solicitations and administrations is conveyed over an organization.

**Framework Architecture**

On the side of client, we use a PHP framework called CodeIgniter. It is of the MVC architecture Model View Control architecture. Database operations are managed in the model session.Like database comparisons and validations takes place in the model session. The overall functions are performed in the control session

**CHAPTER 5**

**PROJECT BUDGET**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No** | **Cloud Services and Coding Cost** | **Single Price (Rs)** | **Total** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total | | |  |

**CONCLUSION**

A simple text-based shoulder surfing resistant graphical password, in which the user can easily and efficiently complete the login process without worrying about shoulder surfing attacks has been proposed. The operation of the proposed scheme is simple and easy to learn for users familiar with textual passwords. The user can easily and efficiently to login the system without using any physical keyboard or on-screen keyboard. Finally, the resistances of the proposed scheme to shoulder surfing and accidental login are analyzed and evidence of the usability and security by analyzing data collected from a large user study of Pass Points are provided.

**REFERENCES**

1. https://www.ijraset.com/research-paper/graphical-password-authentication-system

2.https://www.researchgate.net/publication/224229789\_A\_graphical\_password\_authentication\_system

3. https://ieeexplore.ieee.org/document/5749855/

4. https://ijrar.org/papers/IJRAR1APP028

**CODE**

**INDEX CODE:**

**SOURCE CODE:**

<!DOCTYPE html>

<html>

<head>

<title>Home</title>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initial-scale=1">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="keywords" content="footer, address, phone, icons" />

<link rel="stylesheet" href="plugins/slick/slick.css">

<link rel="stylesheet" href="plugins/slick/slick-theme.css">

<link rel="stylesheet" href="plugins/fancybox/jquery.fancybox.min.css">

<link href="css/style1.css" rel="stylesheet">

<link rel="shortcut icon" href="images/favicon.ico" type="image/x-icon">

<link rel="icon" href="images/favicon.ico" type="image/x-icon">

<link rel="stylesheet" href="css/demo.css">

<link rel="stylesheet" href="css/footer-distributed-with-address-and-phones.css">

<link rel="stylesheet"

href="http://maxcdn.bootstrapcdn.com/font-awesome/4.2.0/css/font-awesome.min.css">

</head>

<body>

<section class="header-uper">

<div class="container clearfix">

<div class="logo">

<h1><font color="black" size="7">Graphical Password Authentication System</font></h1>

</section>

<nav class="navbar navbar-default">

<div class="container">

<!-- Brand and toggle get grouped for better mobile display -->

<div class="navbar-header">

<button type="button" class="navbar-toggle collapsed" data-toggle="collapse"

data-target="#bs-example-navbar-collapse-1"

aria-expanded="false">

<span class="sr-only">Toggle navigation</span>

<span class="icon-bar"></span>

<span class="icon-bar"></span>

<span class="icon-bar"></span>

</button>

</div>

<!-- Collect the nav links, forms, and other content for toggling -->

<div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">

<ul class="nav navbar-nav">

<li class="active">

<a href="registration/signup.html">Sign Up</a>

</li>

<li>

<a href="log\_in/login.html">Login</a>

</li>

</ul>

</div>

</div>

</nav>

</body>

</html>

**SIGNUP CODE**

<!DOCTYPE html>

<html>

<head>

<title>Signup</title>

<!-- mobile responsive meta -->

<meta name="viewport" content="width=device-width, initial-scale=1">

<meta charset="utf-8">

<link href="http://maxcdn.bootstrapcdn.com/font-awesome/4.2.0/css/font-awesome.min.css">

<link href="css/font-awesome.min.css" rel="stylesheet" type="text/css" media="all">

<link href="css/style-body.css" rel="stylesheet" type="text/css" media="all"/>

<li>

<a href="log\_in/login.html">Login</a>

</li>

</ul>

</div>

</div>

</nav>

</body>

</html>

<div class="signupform">

<div class="container">

<div class="agile\_info">

<div class="login\_form">

<div class="left\_grid\_info">

<h1>USER REGISTRATION PAGE</h1>

<p>This system provides high security to your account through the graphical password.</p><br>

<img class="im1" src="../images/cover.jpg" height="270" width="370">

</div>

</div>

<div class="login\_info">

<h2>Create New Account</h2>

<p>Enter your details to create the account.</p>

<form name="signup" action="signup.php" method="post" onsubmit="return validate();">

<label>Username</label>

<div class="input-group">

<span class="fa fa-user"></span>

<input type ="text" name="name" id="name" placeholder="Enter Your Username" required="" onBlur="test();">

</div>

<label>Password</label>

<div class="input-group">

<span class="fa fa-lock"></span>

<input type="Password" name="password" placeholder="Enter Your Password" required="">

</div>

<label>Re-Enter Password</label>

<div class="input-group">

<span class="fa fa-lock"></span>

<input type="Password" name="repassword" placeholder="Enter Your Password Again" required="" onBlur="test2();">

</div>

<label>Name in full</label>

<div class="input-group">

<span class="fa fa-edit"></span>

<input type ="text" name="realname" placeholder="Enter Your Fullname" required="">

</div>

<label>Email</label>

<div class="input-group">

<span class="fa fa-envelope"></span>

<input type ="email" name="email" placeholder="Enter Your Email" required="">

</div>

<label>Phone</label>

<div class="input-group">

<span class="fa fa-phone"></span>

<input type ="number" name="phone" placeholder="Enter Your Phone Number" required=""> </div>

<p class="account1">All Fields are compulsory</p>

<button class="btn btn-danger btn-block" type="submit" name="submit">Register</button >

</form>

<p class="account">By clicking register, you agree to our <a href="#">Terms & Conditions</a></p>

<p class="account">Already have an account? <a href="../log\_in/login.html">Login here</a></p>

</div>

</div>

</div>

</div>

**LOGIN CODE:**

<html>

<head>

<title>Login</title>

<meta name="viewport" content="width=device-width, initial-scale=1">

<meta charset="utf-8">

<link rel="stylesheet" href="css/style-footer.css">

<link href="css/style1.css" rel="stylesheet">

<link href="css/style-body.css" rel="stylesheet" type="text/css" media="all"/>

<link rel="stylesheet" href="http://maxcdn.bootstrapcdn.com/font-awesome/4.2.0/css/font-awesome.min.css">

<link href="css/font-awesome.min.css" rel="stylesheet" type="text/css" media="all">

</head>

<body>

<!-- login form -->

<div class="signupform">

<div class="container">

<div class="agile\_info">

<div class="login\_form">

<div class="left\_grid\_info">

<h1>Manage Your User Account</h1>

<p>This system provides high security to your account through the graphical password.</p><br>

<img class="im1" src="../images/cover.jpg" height="270" width="370">

</div>

</div>

<!-- right side -->

<div class="login\_info">

<h2>Login to your Account</h2>

<p>Enter your details to login.</p>

<form name="login" action="login.php" method="post" onSubmit="return validate();">

<label>Username</label>

<div class="input-group">

<span class="fa fa-user"></span>

<input type ="text" name="name" placeholder="Enter Your Username" required="">

</div>

<label>Password</label>

<div class="input-group">

<span class="fa fa-lock"></span>

<input type="Password" name="password" placeholder="Enter Password" required="">

</div>

<button class="btn btn-danger btn-block" type="submit" name="submit">Login</button >

</form>

<p class="account">Don't have an account? <a href="../registration/signup.html">Register here</a></p>

</div>

</div>

</div>

</div>

<script src="plugins/jquery.js"></script>

<script src="plugins/bootstrap.min.js"></script>

<script src="plugins/bootstrap-select.min.js"></script>

<script src="plugins/validate.js"></script>

<script src="plugins/wow.js"></script>

<script src="plugins/jquery-ui.js"></script>

<script src="js/script.js"></script

</body>

</html>