

Project Report

Submitted in partial fulfilment of the degree of

Btech in Information Technology

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THIS IS SUBMITTED IN FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

AFFILIATED TO

Maulana Abul Kalam Azad University of Technology



Under the supervision of

Mr. Souradip Kundu

Sikharthy Infotech Pvt. Ltd.

ATTENDANCE SYSTEM USING WEB APP

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Project Guide

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AFFILIATED TO

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Department of Information Technology

I hereby forward the documentation prepared under my supervision by **Souradip Kundu Sir** entitled **Siliguri Institute Of Technology** to be accepted as fulfilment of the requirement for the Degree of Bachelor of Technology in Information Technology, **Siliguri Institute Of Technology** affiliated to **Maulana Abul Kalam Azad University of Technology (MAKAUT)**.

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Certificate of Approval

The foregoing project is hereby approved as a creditable study for the B.Tech in Information Technology presented in a manner of satisfactory to warrant its acceptance as a prerequisite to the degree for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorsed or approved any statement made, opinion expressed or conclusion therein but approve this project only for the purpose for which it is submitted.

Final Examination for
Evaluation of the Project

Signatures of Examiners

ABSTRACT

This project is all about the online attendance taking system. A system that takes very less time and saves the time of people standing in a queue for maintenance of their attendance in any organisation. This system is independent of the place and time. Therefore saving the time of the employee in having to wait in the queues. So, in organisation where a limited number of people work, this method can be employed to assure the attendance of its employees.

In this project of *Attendance Taking using Web Application*, the user has to first login into the system to ensure that he/she is the registered employee in the organization. Because without registration no user can make his/her attendance. So, there is also a proper requirement of the database to be maintained. Once, the user has logged into the system, he/she has to mention his designated name and then his/her some unique ID given to the employee by the organization. Mention the date and then onwards whether he/she is present or absent. In order to ensure the proper attendance is maintained or not, there has to be a proper check in the back-end by administrator.

Attendance taking System using Web Application: This system to its best fit is suitable for organization with low workforce. That have a limited number of employees working. So, that it can maintain a proper attendance of its employees and make sure that they are paid well on the basis of their presence and their work for the company.

ACKNOWLEDGEMENT

It is a great pleasure for me to acknowledge the assistance and participation of many individuals in this attempt. Our project report has been structured under the valued suggestion, support, and guidance of **Mr. Souradip Kundu**. Under his guidance, we have accomplished the challenging task in a very short time.

Finally, we express our sincere thankfulness to our family members for inspiring me all throughout and always encouraging us.

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INTRODUCTION

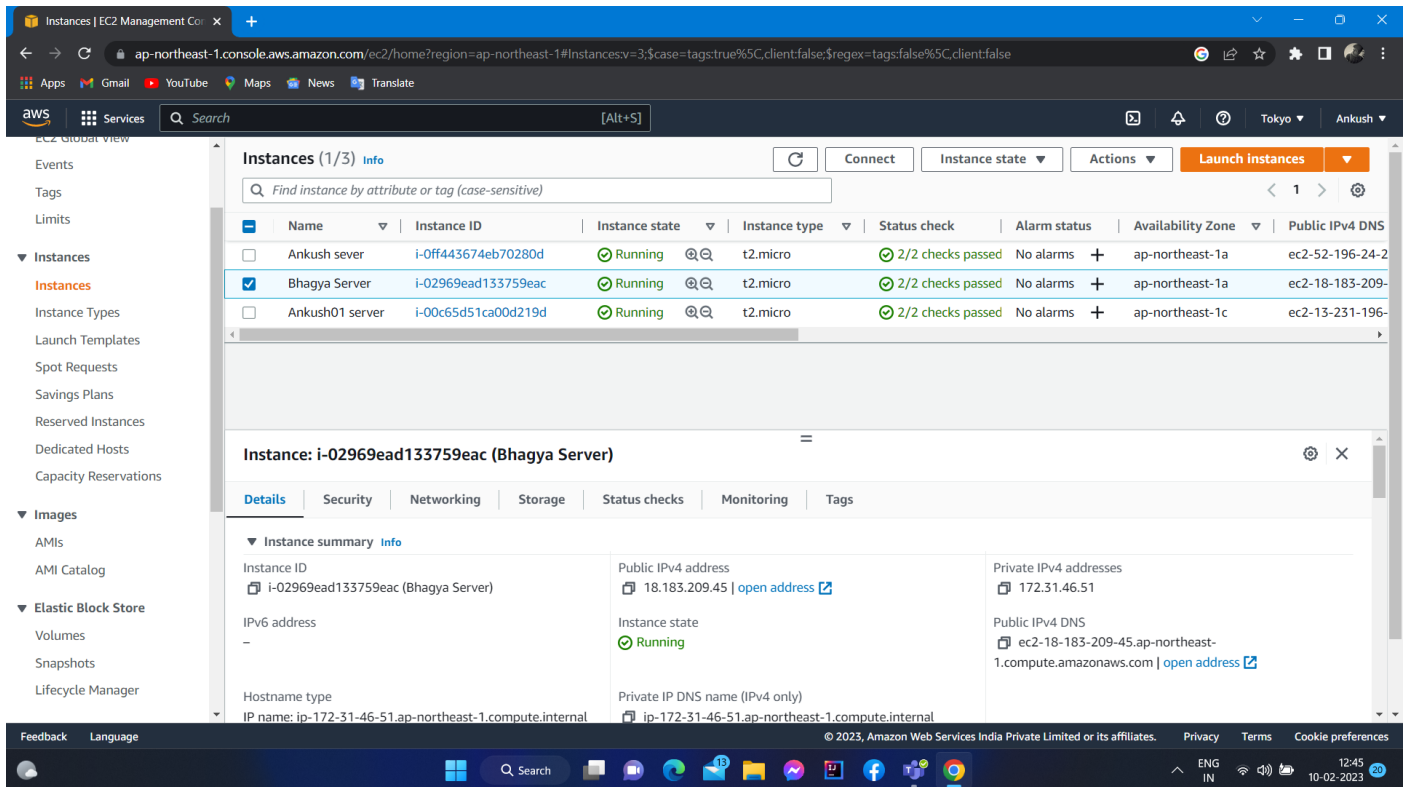
Attendance taking System using Web Application: This system to its best fit is suitable for organization with low workforce. That have a limited number of employees working. So, that it can maintain a proper attendance of its employees and make sure that they are paid well based on their presence and their work for the company.

In this system, there is an administrative agent who is designated by the organisation to work in the company/organisation to ensure that proper attendance of the employees are taken correctly. So, first of all, he will log into the system and make sure he is present and is the authorised person to enter the proper details into the system. He will properly mention the name of the person who is coming to the organisation to work with the date mentioned and will also mark him/her present or absent as per the person arrives at the organisation or company.

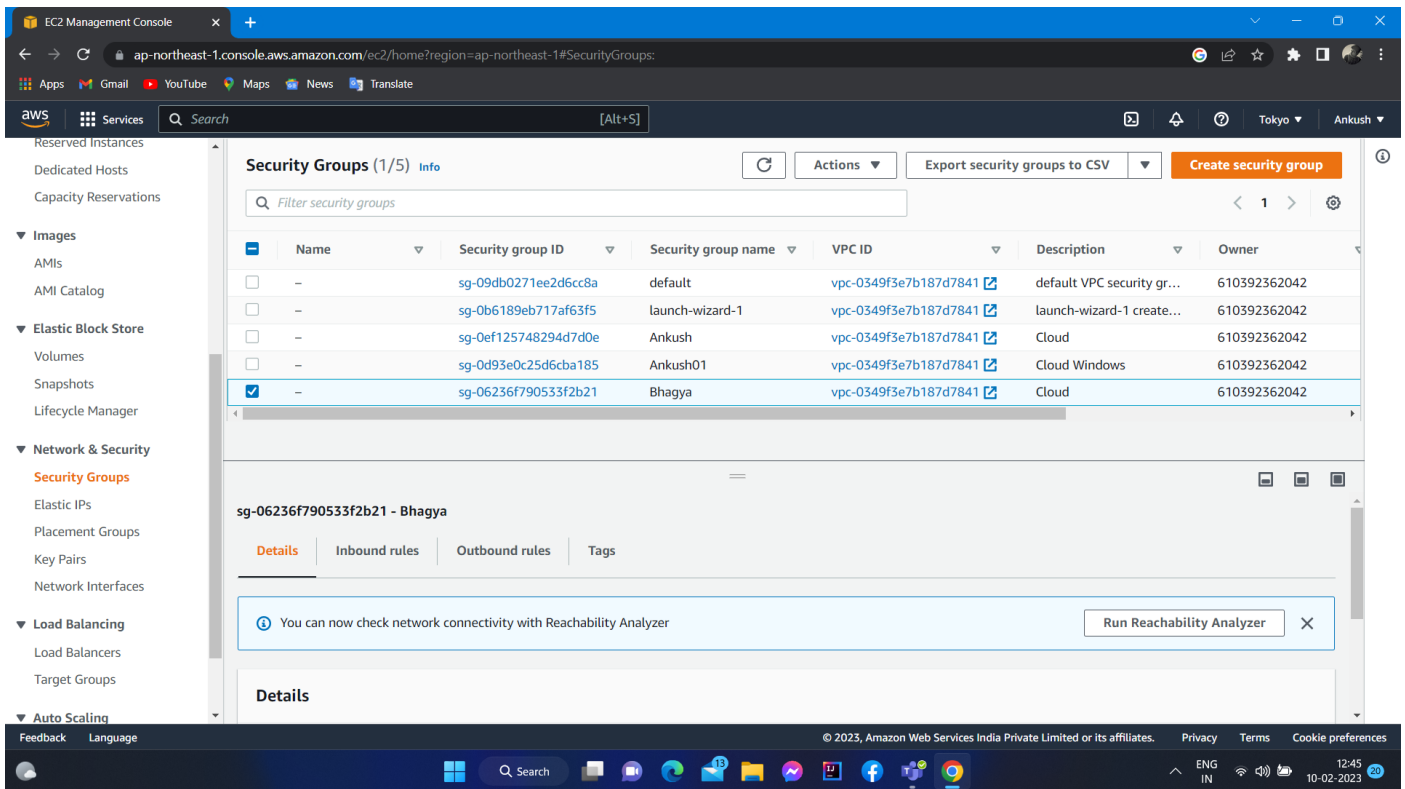
We also have used Amazon Web Services to create an EC2(Elastic Compute Cloud) instances to host our domain using Linux server through puTTY.

AWS

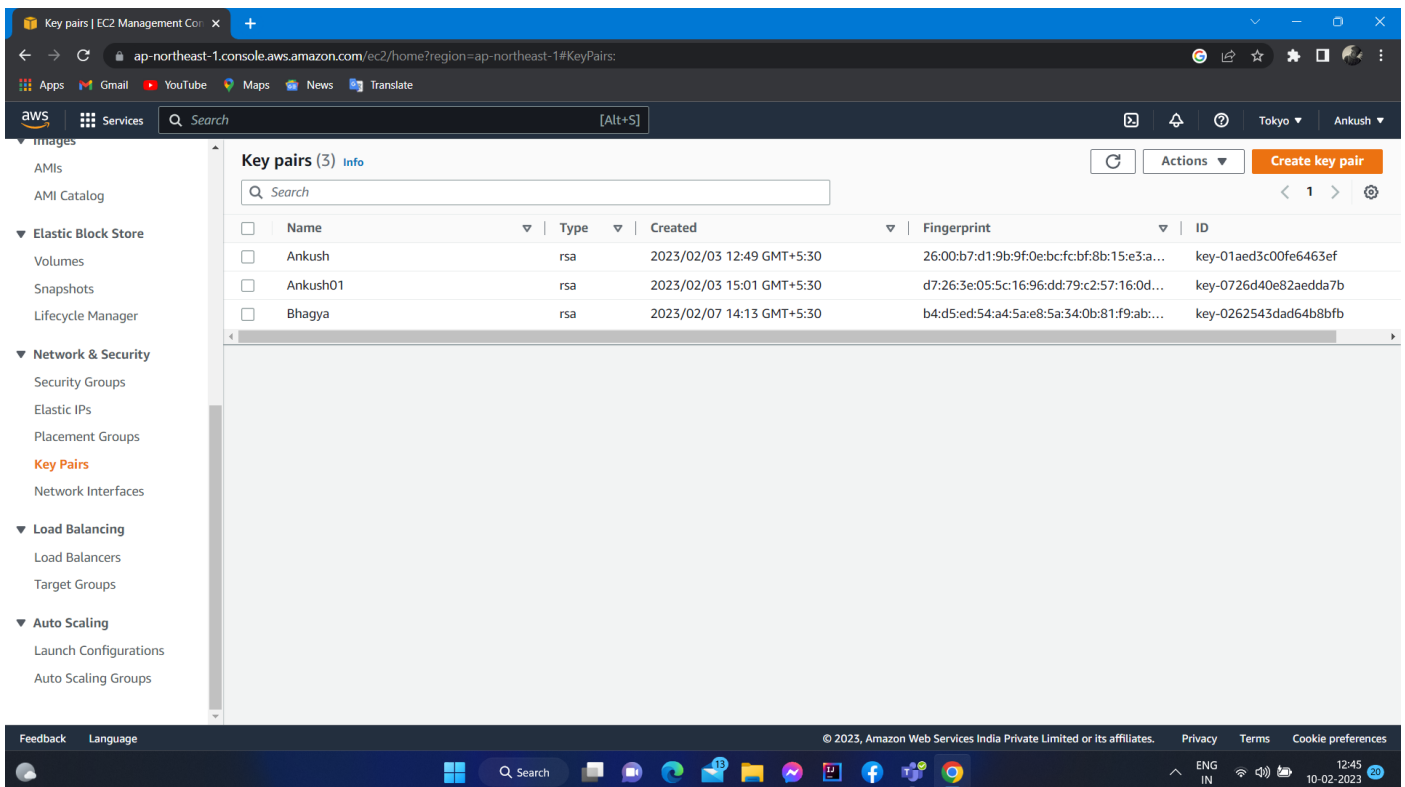
Amazon Web Services (AWS) is a collection of remote computing services (also called web services) that make up a cloud computing platform, offered by Amazon.com. It provides a mix of infrastructure as a service (IaaS), platform as a service (PaaS) and packaged software as a service (SaaS) offerings. AWS provides over 165 fully-featured services to millions of active customers around the world, including start-ups, enterprises, and government agencies. It offers a range of services such as computing, storage, databases, and application services, and has become one of the leading cloud computing platforms for businesses.



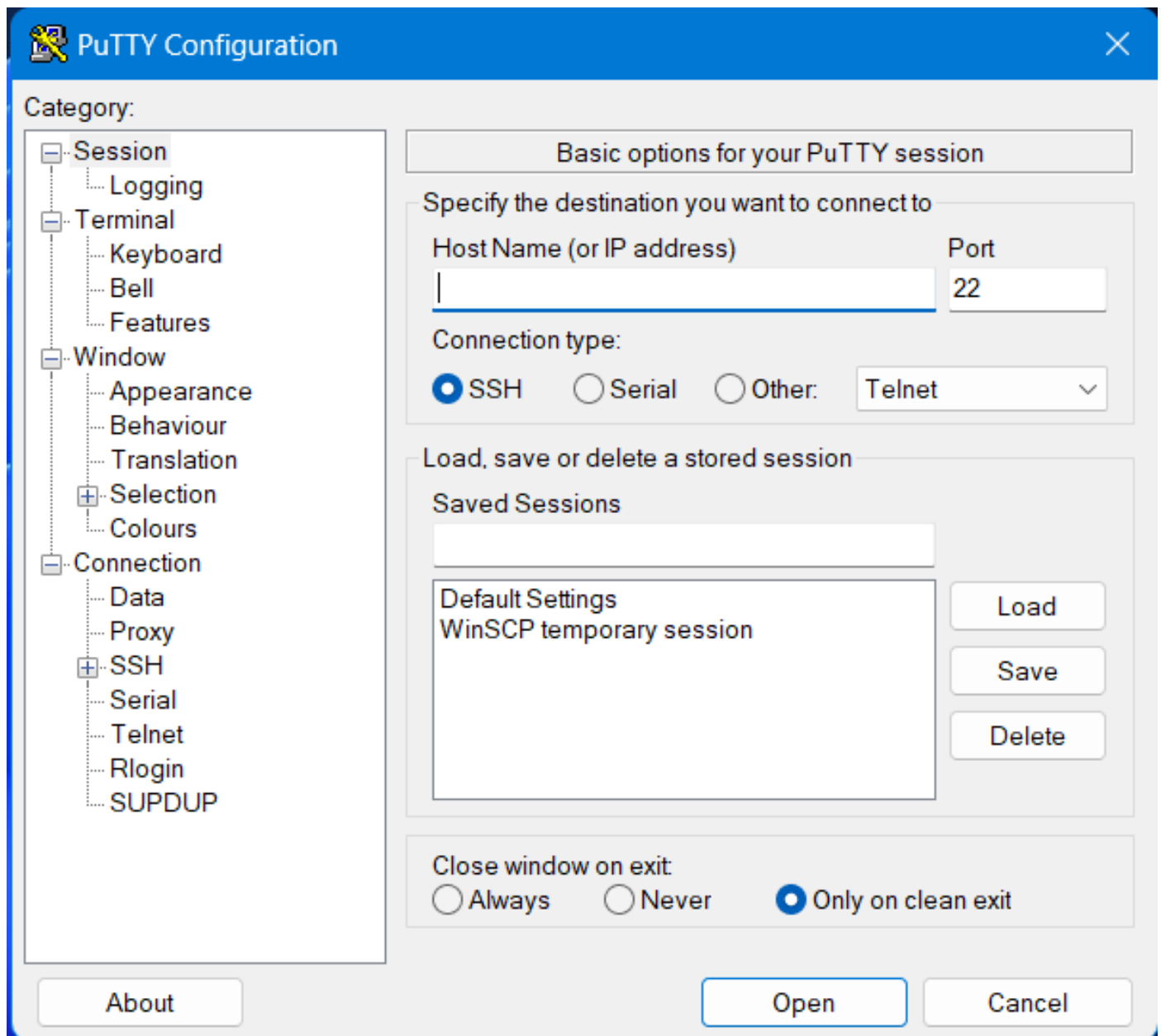
We have used here Elastic Compute Cloud(EC2)



We have first created a security group with some key pair creation with some below



We have created some key pairs to make establish connection with the AWS server.



This is putty interface here we give the public ip address and upload the key pair file for establishing the connection with AWS Server for hosting our website /content.

WEB INTERFACE LAYOUT

Admin Login For Attendance

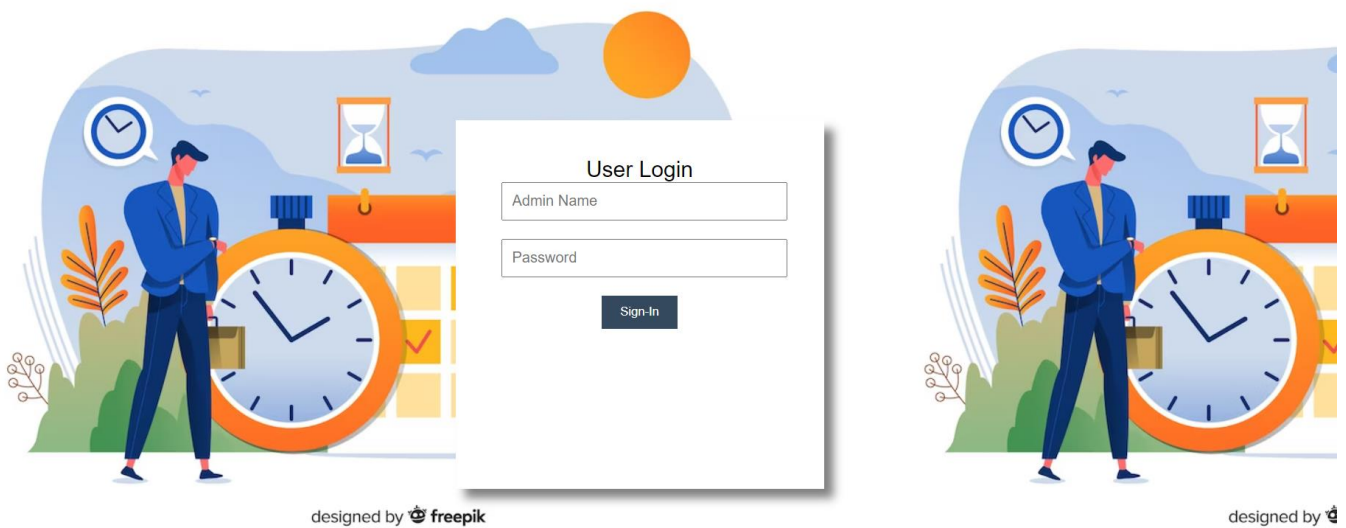


Fig: Admin Login Interface

Code for Admin Page

HTML:

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Login or Sign Up</title>
<link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<h1 id="heading" >Admin Login For Attendance</h1>
<div class="container">
    <div class="login-box">
        <form id="login-form" >
            <h2 style="font-weight: normal;">User Login</h2>
            <div class="textbox">
                <i class="fa fa-user" aria-hidden="true"></i>
                <input id="adminname" type="text" placeholder="Admin Name">
            </div>

            <div class="textbox">
                <i class="fa fa-lock" aria-hidden="true"></i>
                <input id="pass" type="password" placeholder="Password">
            </div>

            <button type="submit" class="btn">Sign-In</button>
        </form>
    </div>

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

</body>
</html>
```

CSS FOR ADMIN LOGIN:

```
@charset "ISO-8859-1";
* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
}

body {
  font-family: Arial, sans-serif;
  /background-color: #34495e;/
  object-fit: contain;
  background-image: url("https://img.freepik.com/free-vector/time-management-
concept-landing-page_52683-
19708.jpg?w=996&t=st=1675869895~exp=1675870495~hmac=c46078c1a33fc6906b33
ed093982940eca6031410c7a149a11569c2497af2097");
}

.container {
  display: flex;
  height: 100vh;
}

.login-box{
  background-color: white;
  width: 400px;
  height: 400px;
  margin: auto;
  box-shadow: 10px 10px 10px gray;
  padding: 40px;
}

.login-box h1,
.signup-box h1 {
  text-align: center;
  color: #34495e;
}

.textbox {
  display: flex;
  margin-bottom: 20px;
  align-items: center;
}

.textbox i {
  color: #34495e;
  margin-right: 10px;
```

```
}
```

```
.textbox input {  
  width: 100%;  
  padding: 10px;  
  font-size: 16px;  
}
```

```
.btn {  
  background-color: #34495e;  
  color: white;  
  padding: 10px 20px;  
  border: none;  
  cursor: pointer;  
}
```

```
.login-box{  
  text-align:center;  
}
```

```
#heading{  
  text-align:center;  
  font-weight: bold;  
  color:Black;  
}
```

CODE FOR ADMIN LOGIN CHECK:

```
document.getElementById("login-form").addEventListener("submit",function(e){
    e.preventDefault();

    const AdName = document.getElementById("adminname").value;
    const password = document.getElementById("pass").value;

    if(AdName === "admin" && password === "IT24")
    {
        window.location.href="indexa.jsp";
    }
    else{
        alert("Invalid Credentials");
    }

});
```


Attendance Form of Siliguri Institute of Technology



Name:

University Roll No:

Date:

Absent/Present:

Fig: Attendance Form of Siliguri Institute of Technology

ATTENDANCE TAKING PAGE CODE:

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
    <meta charset="ISO-8859-1">
    <title>Attendance Sheet </title>
    <link rel="stylesheet" type="text/css" href="main.css">
</head>
<body>
    <h1 id="heading">Attendance Form of Siliguri Institute of Technology</h1>
    

    <form action="UserServlet" method="POST" id="formmain" >
        <table>
            <tr>
                <td><label for="name">Name:</label></td>
                <td><input type="text" id="name" name="name"></td>
            </tr>
            <tr>
                <td><label for="UniversityRollNo">University Roll
No:</label></td>
                <td><input type="text" id="UniversityRollNo"
name="UniversityRollNo"></td>
            </tr>
            <tr>
                <td><label for="date">Date:</label></td>
                <td><input type="date" id="date" name="date"></td>
            </tr>
            <tr>
                <td><label for="statu">Absent/Present:</label></td>
                <td><input type="text" id="statu" name="statu"></td>
            </tr>
        </table>

        <div id="sub">
            <button type="submit" id="status" >Add-Status</button>
        </div>
    </form>

</body>
</html>
```

CSS CODE FOR THE ATTENDANCE TAKING PAGE:

```
@charset "ISO-8859-1";
body {
    background-image: url("https://images.unsplash.com/photo-1481627834876-
b7833e8f5570?ixlib=rb-
4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=c
rop&w=1856&q=80");
    text-align:center;
}

img {
    height: 150px;
    width: 150px;
}

#name{
    width: auto;
    padding: 12px 20px;
    margin: 8px 0;
    display: inline-block;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
}
#UniversityRollNo{
    width: auto;
    padding: 12px 20px;
    margin: 8px 0;
    display: inline-block;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
}
#statu{
    width: auto;
    padding: 12px 20px;
    margin: 8px 0;
    display: inline-block;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
}
button{
    background-color: #34495e;
    color: white;
    padding: 10px 20px;
```

```
border: none;
cursor: pointer;
}
#status:hover{
    background-color: #45a049;
}
#formmain{
    background-color:#C4A484;
    position: absolute;
    width:600px;
    margin-top: 10px;
    margin-left: 500px;
    box-shadow: 8px 8px 10px gray;
    border-radius:20px;
}
#heading{
    color:white;
    font-family:'Franklin Gothic Medium', 'Arial Narrow', Arial, sans-serif;
}
}
```

BACKEND CODE FOR DB CONNECTION

JAVA SERVLET CODE:

```
package com.SITIT24.controller;

import java.io.IOException;
//import java.sql.Connection;
//import java.sql.DriverManager;

import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

import com.SITIT24.daoimpl.UserDaoImpl;
import com.SITIT24.vo.ResultVo;
import com.SITIT24.vo.UserVo;

/**
 * Servlet implementation class UserServlet
 */
@WebServlet("/UserServlet")
public class UserServlet extends HttpServlet {
    private static final long serialVersionUID = 1L;

    UserDaoImpl daoImpl = new UserDaoImpl();
    ResultVo rvo = new ResultVo();
    /**
     * @see HttpServlet#HttpServlet()
     */
    public UserServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse
    response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
        // TODO Auto-generated method stub
        response.getWriter().append("Served at:
    ").append(request.getContextPath());
    }
}
```

```

/**
 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse
response)
 */
protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
    // TODO Auto-generated method stub
    try {
        String UniversityRollNo=request.getParameter("UniversityRollNo");//

        String name=request.getParameter("name");
        String Date = request.getParameter("date");
        String PresentorAbsent=request.getParameter("statu");

        UserVo uvo =new UserVo();
        uvo.setUniversityRollNumber(UniversityRollNo);
        uvo.setFullname(name);
        uvo.setDate(Date);
        uvo.setPresentOrAbsent(PresentorAbsent);

        rvo = daoImpl.dataInsert(uvo);
        RequestDispatcher rd=
getServletContext().getRequestDispatcher("/indexa.jsp");
        rd.include(request, response);

    }catch(Exception e) {
        e.printStackTrace();
    }
}
}

```

DAOIMPL CODE:

```
package com.SITIT24.daoimpl;
```

```
import java.sql.*;
```

```
import com.SITIT24.dbconnection.DBconnection;
```

```
import com.SITIT24.vo.ResultVo;
```

```
import com.SITIT24.vo.UserVo;
```

```
public class UserDaoImpl {
```

```
    ResultVo rvo = new ResultVo();
```

```
    public Connection con = null;
```

```
    public PreparedStatement ps = null;
```

```
    DBconnection dc= new DBconnection();
```

```
    public ResultVo dataInsert(UserVo uvo) {
```

```
        try {
```

```
            //Take that data from servlet
```

```
            String UniversityRollNumber=uvo.getUniversityRollNumber();
```

```
            String Name=uvo.getFullname();
```

```
            String Date=uvo.getDate();
```

```
            String PresentOrAbsent=uvo.getPresentOrAbsent();
```

```
            //Check DB Connection
```

```
            con=dc.dbConnection();
```

```
            //Execute SQL Query
```

```
            String insertQuery = "INSERT INTO students VALUES(Default, ?, ?, ?, ?)";
```

```
            ps= con.prepareStatement(insertQuery);
```

```
            ps.setString(1, UniversityRollNumber);
```

```
            ps.setString(2, Name);
```

```
            ps.setString(3, Date);
```

```
            ps.setString(4, PresentOrAbsent);
```

```
            //check the transaction status
```

```
            int i= ps.executeUpdate();
```

```
            if(i>0) {
```

```
                System.out.println("Success");
```

```
            }else {
```

```
                System.out.println("Failed");
```

```
            }
```

```
        }catch(Exception e) {
```

```
        e.printStackTrace();
    }
    return rvo;
}

}
```


DB CONNECTION:

```
package com.SITIT24.dbconnection;
```

```
import java.sql.Connection;  
import java.sql.DriverManager;
```

```
public class DBconnection {  
    public Connection con=null;
```

```
        public Connection dbConnection() {  
            try {
```

```
                System.out.println("Connecting...");  
                Class.forName("com.mysql.jdbc.Driver");
```

```
                con=DriverManager.getConnection("jdbc:mysql://localhost:3306/sitit24", "root",  
                "");
```

```
                System.out.println("Connected...");
```

```
            }catch(Exception e) {  
                System.out.println(e);  
                e.printStackTrace();
```

```
            }  
            return con;
```

```
        }
```

```
        public static void main(String[] args) {  
            // TODO Auto-generated method stub  
            DBconnection dc = new DBconnection();  
            dc.dbConnection();
```

```
        }
```

```
    }
```

USER VO CODE:

```
package com.SITIT24.vo;
```

```
public class UserVo {  
    private String UniversityRollNumber;  
    private String fullname;  
    private String Date;  
    private String PresentOrAbsent;  
  
    public String getPresentOrAbsent() {  
        return PresentOrAbsent;  
    }  
    public void setPresentOrAbsent(String presentOrAbsent) {  
        PresentOrAbsent = presentOrAbsent;  
    }  
    public String getFullname() {  
        return fullname;  
    }  
    public void setFullname(String fullname) {  
        this.fullname = fullname;  
    }  
  
    public String getDate() {  
        return Date;  
    }  
    public void setDate(String date) {  
        Date = date;  
    }  
    public String getUniversityRollNumber() {  
        return UniversityRollNumber;  
    }  
    public void setUniversityRollNumber(String UniversityRollNumber) {  
        this.UniversityRollNumber = UniversityRollNumber;  
    }  
  
    // TODO Auto-generated method stub  
  
}
```

RESULT VO CODE:

```
package com.SITIT24.vo;
```

```
public class ResultVo {  
    private boolean flag;  
  
    public boolean isFlag() {  
        return flag;  
    }  
  
    public void setFlag(boolean flag) {  
        this.flag = flag;  
    }  
  
}
```

CONCLUSION

We have fully completed this project based on Cloud computing to take attendance of employees of an organisation using Web application. We know by now that Machine Learning has a huge and vast scope in such genuine problem. It is like that we can improve the productivity by getting the knowledge on the basis of the experience a certain employee has over time.

REFERENCE

- **TomCat documentation**
- **Apache documentation**
- **W3School.com**
- **Stackoverflow**
- **Java Servlet documentation**