

Listing Program

connectDB.php

```
<?php
/* Database connection settings */
$servername = "localhost";
$username = "root";
//put your phpmyadmin
username.(default is "root")
$password = "";
//if your phpmyadmin has a
password put it here.(default is
"root")
$dbname = "biometricattendace";

$conn =
mysqli_connect($servername,
$username, $password, $dbname);
if ($conn-
>connect_error) {
    die("Database
    Connection failed: " . $conn-
    >connect_error);
}
?>
```

Export_Excel.php

```
<?php
//Connect to database
require'connectDB.php';

$output = "";

if(isset($_POST["To_Excel"])){

    if ( empty($_POST['date_sel'])) {

        $Log_date = date("Y-m-d");
    }
    else if (
!empty($_POST['date_sel'])) {
```

```
        $Log_date =
        $_POST['date_sel'];
    }
    $sql = "SELECT * FROM
users_logs WHERE
checkindate='$Log_date' ORDER BY
id DESC";
    $result = mysqli_query($conn,
    $sql);
    if($result->num_rows > 0){
        $output .= '
        <table class="table"
        bordered="1">
            <TR>
                <TH>ID</TH>
                <TH>Name</TH>
                <TH>Serial
                Number</TH>
                <TH>Fingerprint
                ID</TH>
                <TH>Date
                log</TH>
                <TH>Time
                In</TH>
                <TH>Time
                Out</TH>
            </TR>;
            while($row=$result-
            >fetch_assoc()) {
                $output .= '
                <TR>
                    <TD>
                    '.$row['id'].'</TD>
                    <TD>
                    '.$row['username'].'</TD>
                    <TD>
                    '.$row['serialnumber'].'</TD>
                    <TD>
                    '.$row['fingerprint_id'].'</TD>
                    <TD>
                    '.$row['checkindate'].'</TD>
                    <TD>
                    '.$row['timein'].'</TD>
                    <TD>
                    '.$row['timeout'].'</TD>
                </TR>;
            }
        $output .= '</table>;'
```



```

        if
(!mysqli_stmt_prepare($result, $sql))
{
        echo
"SQL_Error_Select_login1";
        exit();
    }
    else{
        $timeout = "";

mysqli_stmt_bind_param($result,
"sdis", $Uname, $Number,
$fingerID, $timeout);

mysqli_stmt_execute($result);

        echo
"login".$Uname;
        exit();
    }
}

//*****
*****

        //Logout
        else{
            $sql="UPDATE
users_logs SET
timeout=CURTIME() WHERE
fingerprint_id=? AND
checkindate=CURDATE()";
            $result =
mysqli_stmt_init($conn);
            if
(!mysqli_stmt_prepare($result, $sql))
            {
                echo
"SQL_Error_insert_logout1";
                exit();
            }
            else{

mysqli_stmt_bind_param($result,
"i", $fingerID);

mysqli_stmt_execute($result);

                echo
"logout".$Uname;
                exit();
            }
        }

//*****
*****

        //An available Fingerprint has
        been detected
        else{
            $sql = "SELECT
fingerprint_select FROM users
WHERE fingerprint_select=1";
            $result =
mysqli_stmt_init($conn);
            if
(!mysqli_stmt_prepare($result, $sql))
            {
                echo
"SQL_Error_Select";
                exit();
            }
            else{

mysqli_stmt_execute($result);
            $resultl =
mysqli_stmt_get_result($result);

            if ($row =
mysqli_fetch_assoc($resultl)) {
                $sql="UPDATE users
SET fingerprint_select=0";
                $result =
mysqli_stmt_init($conn);
                if
(!mysqli_stmt_prepare($result, $sql))
                {
                    echo
"SQL_Error_insert";
                    exit();
                }
                else{

mysqli_stmt_execute($result);

```

```

        $sql="UPDATE
users SET fingerprint_select=1
WHERE fingerprint_id=?";
        $result =
mysqli_stmt_init($conn);
        if
(!mysqli_stmt_prepare($result, $sql))
{
            echo
"SQL_Error_insert_An_available_ca
rd";
            exit();
        }
        else{

mysqli_stmt_bind_param($result,
"i", $fingerID);

mysqli_stmt_execute($result);

            echo "available";
            exit();
        }
    }
}
else{
    $sql="UPDATE users
SET fingerprint_select=1 WHERE
fingerprint_id=?";
    $result =
mysqli_stmt_init($conn);
    if
(!mysqli_stmt_prepare($result, $sql))
    {
        echo
"SQL_Error_insert_An_available_ca
rd";
        exit();
    }
    else{

mysqli_stmt_bind_param($result,
"i", $finger_sel, $fingerID);

mysqli_stmt_execute($result);

            echo "available";
            exit();

```

```

        }
    }
}
}

//*****
*****

//New Fingerprint has been
added
else{
    $Uname = "";
    $Number = "";
    $gender= "";

    $sql = "SELECT
fingerprint_select FROM users
WHERE fingerprint_select=1";
    $result =
mysqli_stmt_init($conn);
    if
(!mysqli_stmt_prepare($result, $sql))
    {
        echo "SQL_Error_Select";
        exit();
    }
    else{

mysqli_stmt_execute($result);
    $resultl =
mysqli_stmt_get_result($result);
    if ($row =
mysqli_fetch_assoc($resultl)) {
        $sql="UPDATE users
SET fingerprint_select =0";
        $result =
mysqli_stmt_init($conn);
        if
(!mysqli_stmt_prepare($result, $sql))
        {
            echo
"SQL_Error_insert";
            exit();
        }
        else{

mysqli_stmt_execute($result);

```



```

    $fingerprintid = $_POST['confirm_id'];

    $sql="UPDATE users SET
fingerprint_select=0 WHERE
fingerprint_select=1";
    $result = mysqli_stmt_init($conn);
    if (!mysqli_stmt_prepare($result,
$sql)) {
        echo "SQL_Error_Select";
        exit();
    }
    else{
        mysqli_stmt_execute($result);

        $sql="UPDATE users SET
add_fingerprintid=0, fingerprint_select=1
WHERE fingerprint_id=?";
        $result =
mysqli_stmt_init($conn);
        if
(!mysqli_stmt_prepare($result, $sql))
        {
            echo "SQL_Error_Select";
            exit();
        }
        else{

mysqli_stmt_bind_param($result,
"s", $fingerprintid);

mysqli_stmt_execute($result);
        echo "Fingerprint has been
added!";
        exit();
        }
    }
}
if (isset($_POST['DeleteID'])) {

    if ($_POST['DeleteID'] ==
"check") {
        $sql = "SELECT fingerprint_id
FROM users WHERE
del_fingerprintid=1";
        $result =
mysqli_stmt_init($conn);

        if
(!mysqli_stmt_prepare($result, $sql))
        {
            echo "SQL_Error_Select";
            exit();
        }
        else{

mysqli_stmt_execute($result);
        $resultl =
mysqli_stmt_get_result($result);
        if ($row =
mysqli_fetch_assoc($resultl)) {

            echo "del-
id". $row['fingerprint_id'];

            $sql = "DELETE FROM
users WHERE del_fingerprintid=1";
            $result =
mysqli_stmt_init($conn);
            if
(!mysqli_stmt_prepare($result, $sql))
            {
                echo
"SQL_Error_delete";
                exit();
            }
            else{

mysqli_stmt_execute($result);
                exit();
            }
        }
        else{
            echo "nothing";
            exit();
        }
    }
    else{
        exit();
    }
}
?>

```

Header.php

```

<?php
session_start();
?>
<head>
<meta name="viewport"
content="width=device-width,
initial-scale=1">
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/aj
ax/libs/font-awesome/4.7.0/css/font-
awesome.min.css">
<link rel="stylesheet"
type="text/css"
href="css/header.css">
</head>
<header>
<div class="header">
    <div class="logo">
        <a
href="index.php">Absensi Sidik Jari
Guru SDN 10 Rantau Selatan</a>
    </div>
</div>

<div class="topnav"
id="myTopnav">
    <a href="index.php">Data
Guru & Tendik</a>
    <a href="UsersLog.php">Absensi
Guru & Tendik</a>
    <a
href="ManageUsers.php">Registrasi
Data Guru & Tendik</a>
    <a href="javascript:void(0);"
class="icon"
onclick="navFunction()">
        <i class="fa fa-
bars"></i></a>
</div>
</header>
<script>
    function navFunction() {
        var x =
document.getElementById("myTopn
av");
        if (x.className ===
"topnav") {

```

```

            x.className += "
responsive";
        } else {
            x.className =
"topnav";
        }
    }
</script>

```

Index.php

```

<!DOCTYPE html>
<html>
<head>
    <title>Users</title>
<link rel="stylesheet"
type="text/css"
href="css/Users.css">
<script>
    $(window).on("load resize ",
function() {
        var scrollWidth = $('tbl-
content').width() - $('tbl-content
table').width();
        $('tbl-header').css({'padding-
right':scrollWidth});
    }).resize();
</script>
</head>
<body>
<?php include'header.php'; ?>
<main>
    <section>
    <!--User table-->
    <h1 class="slideInDown
animated">Data Absensi Guru &
Tenaga Pendidik</h1>
    <div class="tbl-header slideInRight
animated">
        <table cellpadding="0"
cellspacing="0" border="0">
            <thead>
                <tr>
                    <th>No | Nama</th>
                    <th>No Telp</th>
                    <th>Jenis Kelamin</th>
                    <th>Finger ID</th>
                    <th>Tanggal</th>

```

```

        <th>Waktu Masuk</th>
    </tr>
</thead>
</table>
</div>
<div class="tbl-content
slideInRight animated">
    <table cellpadding="0"
cellspacing="0" border="0">
        <tbody>
            <?php
                //Connect to database
                require'connectDB.php';

                $sql = "SELECT * FROM
users WHERE NOT username="
ORDER BY id DESC";
                $result =
mysqli_stmt_init($conn);
                if
(!mysqli_stmt_prepare($result, $sql))
                {
                    echo '<p
class="error">SQL Error</p>';
                }
                else{

mysqli_stmt_execute($result);
                $resultl =
mysqli_stmt_get_result($result);
                if
(mysqli_num_rows($resultl) > 0){
                    while ($row =
mysqli_fetch_assoc($resultl)){
                        ?>
                            <TR>
                                <TD><?php echo
$row['id']; echo" | "; echo
$row['username'];?></TD>
                                    <TD><?php echo
$row['serialnumber'];?></TD>
                                        <TD><?php echo
$row['gender'];?></TD>
                                            <TD><?php echo
$row['fingerprint_id'];?></TD>
                                                <TD><?php echo
$row['user_date'];?></TD>

```

```

                                <TD><?php echo
$row['time_in'];?></TD>
                            </TR>
                        <?php
                            }
                        }
                    ?>
                </tbody>
            </table>
        </div>
    </section>
</main>
</body>
</html>

```

Instal.php

```

<?php
    //Connect to database
    $servername = "localhost";
    $username = "root";
    //put your phpmyadmin
    username.(default is "root")
    $password = "";
    //if your phpmyadmin has a
    password put it here.(default is
    "root")
    $dbname = "";

    $conn = new
    mysqli($servername, $username,
    $password, $dbname);

    // Create database
    $sql = "CREATE
DATABASE biometricattendace";
    if ($conn->query($sql) ===
TRUE) {
        echo "Database created
successfully";
    } else {
        echo "Error creating
database: " . $conn->error;
    }

    echo "<br>";

```

```

$dbname =
"biometricattendace";

$conn = new
mysqli($servername, $username,
$password, $dbname);

// sql to create table
$sql = "CREATE TABLE IF
NOT EXISTS `users` (
        `id` int(11)
NOT NULL AUTO_INCREMENT
PRIMARY KEY,
        `username`
varchar(100) NOT NULL,
        `serialnumber`
double NOT NULL,
        `gender`
varchar(10) NOT NULL,
        `email`
varchar(50) NOT NULL,

        `fingerprint_id` int(11) NOT
NULL,

        `fingerprint_select` tinyint(1)
NOT NULL DEFAULT '0',
        `user_date`
date NOT NULL,
        `time_in` time
NOT NULL,
        `del_fingerid`
tinyint(1) NOT NULL DEFAULT
'0',
        `add_fingerid`
tinyint(1) NOT NULL DEFAULT '0'
) ENGINE=InnoDB
DEFAULT CHARSET=latin1";

if ($conn->query($sql) ===
TRUE) {
    echo "Table users created
successfully";
} else {
    echo "Error creating table:
". $conn->error;
}

```

```

$sql = "CREATE TABLE IF
NOT EXISTS `users_logs` (
        `id` int(11)
NOT NULL AUTO_INCREMENT
PRIMARY KEY,
        `username`
varchar(100) NOT NULL,
        `serialnumber`
double NOT NULL,

        `fingerprint_id` int(5) NOT
NULL,
        `checkindate`
date NOT NULL,
        `timein` time
NOT NULL,
        `timeout` time
NOT NULL
) ENGINE=InnoDB
DEFAULT CHARSET=latin1";

if ($conn->query($sql) ===
TRUE) {
    echo "Table users_logs
created successfully";
} else {
    echo "Error creating table:
". $conn->error;
}

$conn->close();
?>

```

Manager_user_conf.php

```

<?php
//Connect to database
require'connectDB.php';

// select passenger
if (isset($_GET['select'])) {

    $Finger_id = $_GET['Finger_id'];

    $sql = "SELECT
fingerprint_select FROM users
WHERE fingerprint_select=1";
    $result = mysqli_stmt_init($conn);

```

```

        if (!mysqli_stmt_prepare($result,
$sql)) {
            echo "SQL_Error_Select";
            exit();
        }
        else{
            mysqli_stmt_execute($result);
            $resultl =
mysqli_stmt_get_result($result);
            if ($row =
mysqli_fetch_assoc($resultl)) {

                $sql="UPDATE users SET
fingerprint_select=0";
                $result =
mysqli_stmt_init($conn);
                if
(!mysqli_stmt_prepare($result, $sql))
                {
                    echo "SQL_Error_Select";
                    exit();
                }
                else{

mysqli_stmt_execute($result);

                $sql="UPDATE users SET
fingerprint_select=1 WHERE
fingerprint_id=?";
                $result =
mysqli_stmt_init($conn);
                if
(!mysqli_stmt_prepare($result, $sql))
                {
                    echo
"SQL_Error_select_Fingerprint";
                    exit();
                }
                else{

mysqli_stmt_bind_param($result,
"s", $Finger_id);

mysqli_stmt_execute($result);

                    echo "Sidik Jari Pengguna
dipilih";
                    exit();
                }
            }
        }
    }
    if (isset($_POST['Add'])) {

        $Uname = $_POST['name'];
        $Number = $_POST['number'];
        $Email= $_POST['email'];

        //optional
        $Timein = $_POST['timein'];
        $Gender= $_POST['gender'];

        //check if there any selected user
        $sql = "SELECT username FROM
users WHERE fingerprint_select=1";
        $result = mysqli_stmt_init($conn);
        if (!mysqli_stmt_prepare($result,
$sql)) {
            echo "SQL_Error";
            exit();
        }
    }

```

```

    }
    else{
        mysqli_stmt_execute($result);
        $resultl =
mysqli_stmt_get_result($result);
        if ($row =
mysqli_fetch_assoc($resultl)) {

            if (empty($row['username']))
{

                if (!empty($Uname) &&
!empty($Number) &&
!empty($Email)) {
                    //check if there any user
had already the Serial Number
                    $sql = "SELECT
serialnumber FROM users WHERE
serialnumber=?";
                    $result =
mysqli_stmt_init($conn);
                    if
(!mysqli_stmt_prepare($result, $sql))
{
                        echo "SQL_Error";
                        exit();
                    }
                    else{

mysqli_stmt_bind_param($result,
"d", $Number);

mysqli_stmt_execute($result);
                    $resultl =
mysqli_stmt_get_result($result);
                    if (!$row =
mysqli_fetch_assoc($resultl)) {
                        $sql="UPDATE
users SET username=?,
serialnumber=?, gender=?, email=?,
user_date=CURDATE(), time_in=?
WHERE fingerprint_select=1";
                        $result =
mysqli_stmt_init($conn);
                        if
(!mysqli_stmt_prepare($result, $sql))
{

```

```

                        echo
"SQL_Error_select_Fingerprint";
                        exit();
                    }
                    else{

mysqli_stmt_bind_param($result,
"sdsss", $Uname, $Number,
$Gender, $Email, $Timein );

mysqli_stmt_execute($result);

                        echo "Pengguna
baru telah ditambahkan!";
                        exit();
                    }
                }
            }
            else {
                echo "Nomor seri
sudah diambil!";
                exit();
            }
        }
    }
    else{
        echo "Bidang Kosong";
        exit();
    }
}
else{
    echo "Sidik Jari ini sudah
ditambahkan";
    exit();
}
}
else {
    echo "Tidak ada Sidik Jari
yang dipilih!";
    exit();
}
}
}
//Add user Fingerprint
if (isset($_POST['Add_fingerID'])) {

    $fingerprintid = $_POST['fingerprintid'];

    if ($fingerprintid == 0) {

```

```

        echo "Masukkan ID Sidik
        Jari!";
        exit();
    }
    else{
        if ($fingerprintid > 0 && $fingerprintid <
        128) {
            $sql = "SELECT
            fingerprint_id FROM users WHERE
            fingerprint_id=?";
            $result =
            mysqli_stmt_init($conn);
            if
            (!mysqli_stmt_prepare($result, $sql))
            {
                echo "SQL_Error";
                exit();
            }
            else{
                mysqli_stmt_bind_param($result,
                "i", $fingerprintid );

                mysqli_stmt_execute($result);
                $resultl =
                mysqli_stmt_get_result($result);
                if (!$row =
                mysqli_fetch_assoc($resultl)) {

                    $sql = "SELECT
                    add_fingerprintid FROM users WHERE
                    add_fingerprintid=1";
                    $result =
                    mysqli_stmt_init($conn);
                    if
                    (!mysqli_stmt_prepare($result, $sql))
                    {
                        echo "SQL_Error";
                        exit();
                    }
                    else{
                        mysqli_stmt_execute($result);
                        $resultl =
                        mysqli_stmt_get_result($result);
                        if (!$row =
                        mysqli_fetch_assoc($resultl)) {

```

```

                        $sql = "INSERT
                        INTO users (fingerprint_id,
                        add_fingerprintid) VALUES (?, 1)";
                        $result =
                        mysqli_stmt_init($conn);
                        if
                        (!mysqli_stmt_prepare($result, $sql))
                        {
                            echo
                            "SQL_Error";
                            exit();
                        }
                        else{
                            mysqli_stmt_bind_param($result,
                            "i", $fingerprintid );

                            mysqli_stmt_execute($result);
                            echo "ID siap
                            mendapatkan Sidik Jari baru";
                            exit();
                        }
                        }
                        else{
                            echo "Anda tidak
                            dapat menambahkan lebih dari satu
                            ID setiap kali";
                        }
                    }
                }
                else{
                    echo "ID ini sudah
                    ada!";
                    exit();
                }
            }
        }
        else{
            echo "ID Sidik Jari harus
            antara 1 & 127";
            exit();
        }
    }
}
// Update an existence user
if (isset($_POST['Update'])) {

    $Uname = $_POST['name'];

```

```

$Number = $_POST['number'];
$Email= $_POST['email'];

//optional
$Timein = $_POST['timein'];
$Gender= $_POST['gender'];

if ($Number == 0) {
    $Number = -1;
}
//check if there any selected user
$sql = "SELECT * FROM users
WHERE fingerprint_select=1";
$result = mysqli_stmt_init($conn);
if (!mysqli_stmt_prepare($result,
$sql)) {
    echo "SQL_Error";
    exit();
}
else{
    mysqli_stmt_execute($result);
    $resultl =
mysqli_stmt_get_result($result);
    if ($row =
mysqli_fetch_assoc($resultl)) {

        if (empty($row['username']))
        {
            echo "Pertama, Anda perlu
menambahkan Pengguna!";
            exit();
        }
        else{
            if (empty($Uname) &&
empty($Number) &&
empty($Email) && empty($Timein))
            {
                echo "Bidang Kosong";
                exit();
            }
            else{
                //check if there any user
had already the Serial Number
                $sql = "SELECT
serialnumber FROM users WHERE
serialnumber=?";
                $result =
mysqli_stmt_init($conn);

                if
                (!mysqli_stmt_prepare($result, $sql))
                {
                    echo "SQL_Error";
                    exit();
                }
                else{
                    mysqli_stmt_bind_param($result,
"d", $Number);

                    mysqli_stmt_execute($result);
                    $resultl =
                    mysqli_stmt_get_result($result);
                    if (!$row =
                    mysqli_fetch_assoc($resultl)) {

                        if
                        (!empty($Uname) &&
                        !empty($Email) &&
                        !empty($Timein)) {

                            $sql="UPDATE
users SET username=?,
serialnumber=?, gender=?, email=?,
time_in=? WHERE
fingerprint_select=1";
                            $result =
                            mysqli_stmt_init($conn);
                            if
                            (!mysqli_stmt_prepare($result, $sql))
                            {
                                echo
                                "SQL_Error_select_Fingerprint";
                                exit();
                            }
                            else{
                                mysqli_stmt_bind_param($result,
"sdsss", $Uname, $Number,
$Gender, $Email, $Timein );

                                mysqli_stmt_execute($result);

                                echo
                                "Pengguna yang dipilih telah
diperbarui!";
                                exit();

```

```

        }
    }
    else{
        if
(!empty($Timein)) {

$sql="UPDATE users SET
gender=?, time_in=? WHERE
fingerprint_select=1";
$result =
mysqli_stmt_init($conn);
    if
(!mysqli_stmt_prepare($result, $sql))
{
        echo
"SQL_Error_select_Fingerprint";
        exit();
    }
    else{

mysqli_stmt_bind_param($result,
"ss", $Gender, $Timein );

mysqli_stmt_execute($result);

        echo
"Pengguna yang dipilih telah
diperbarui!";
        exit();
    }
}
else{
    echo "Waktu
Masuk Pengguna kosong!";
    exit();
}
}
else {
    echo "Nomor seri
sudah diambil!";
    exit();
}
}
}
}
else {

```

```

        echo "Tidak ada Pengguna
yang dipilih untuk diperbarui!";
        exit();
    }
}
// delete user
if (isset($_POST['delete'])) {

    $sql = "SELECT
fingerprint_select FROM users
WHERE fingerprint_select=1";
    $result = mysqli_stmt_init($conn);
    if (!mysqli_stmt_prepare($result,
$sql)) {
        echo "SQL_Error_Select";
        exit();
    }
    else{
        mysqli_stmt_execute($result);
        $resultl =
mysqli_stmt_get_result($result);
        if ($row =
mysqli_fetch_assoc($resultl)) {
            $sql="UPDATE users SET
username=", serialnumber=",
gender=", email=", time_in=",
del_fingerid=1 WHERE
fingerprint_select=1";
            $result =
mysqli_stmt_init($conn);
            if
(!mysqli_stmt_prepare($result, $sql))
{
                echo "SQL_Error_delete";
                exit();
            }
            else{

mysqli_stmt_execute($result);
                echo "Sidik Jari Pengguna
telah dihapus";
                exit();
            }
        }
    }
    else{
        echo "Pilih Pengguna yang
akan dihapus";
    }
}

```

```

        exit();
    }
}
?>

```

Manager_user_up.php

```

<table cellpadding="0"
cellspacing="0" border="0">
<tbody>
<?php
//Connect to database
require'connectDB.php';

$sql = "SELECT * FROM users
WHERE del_fingerid=0 ORDER
BY id DESC";
$result = mysqli_stmt_init($conn);
if (!mysqli_stmt_prepare($result,
$sql)) {
    echo '<p class="error">SQL
Error</p>';
}
else{
    mysqli_stmt_execute($result);
    $resultl =
mysqli_stmt_get_result($result);
    if (mysqli_num_rows($resultl) >
0){
        while ($row =
mysqli_fetch_assoc($resultl)){
            ?>
                <TR>
                    <TD><?php
                        if
($row['fingerprint_select'] == 1) {
                            echo
"<img src='icons/ok_check.png'
title='The selected UID'>";
                        }
                        $fingerprintid =
$row['fingerprint_id'];
                        ?>
                    <form>
                        <button
type="button" class="select_btn"
id="<?php echo $fingerprintid;?>"

```

```

title="select this UID"><?php echo
$fingerprintid;?></button>
                    </form>
                </TD>
            <TD><?php echo
$row['username'];?></TD>
            <TD><?php echo
$row['gender'];?></TD>
            <TD><?php echo
$row['serialnumber'];?></TD>
            <TD><?php echo
$row['user_date'];?></TD>
            <TD><?php echo
$row['time_in'];?></TD>
        </TR>
    <?php
    }
}
?>
</tbody>
</table>

```

Manageruser.php

```

<!DOCTYPE html>
<html>
<head>
    <title>Kelola
Pengguna</title>
<link rel="stylesheet"
type="text/css"
href="css/manageusers.css">
<script>
    $(window).on("load resize ",
function() {
        var scrollWidth = $('tbl-
content').width() - $('tbl-content
table').width();
        $('tbl-header').css({'padding-
right':scrollWidth});
    }).resize();
</script>
<script
src="https://code.jquery.com/jquery-
3.3.1.js"

```

```

        integrity="sha1256-
2Kok7MbOyxpgUVvAk/HJ2jigOSY
S2auK4Pfbzm7uH60="
        crossorigin="anonymous">
</script>
<script src="js/jquery-
2.2.3.min.js"></script>
<script
src="js/manage_users.js"></script>
<script>
    $(document).ready(function(){
        $.ajax({
            url: "manage_users_up.php"
        }).done(function(data) {
            $('#manage_users').html(data);
        });
        setInterval(function(){
            $.ajax({
                url: "manage_users_up.php"
            }).done(function(data) {
                $('#manage_users').html(data);
            });
        },5000);
    });
</script>
</head>
<body>
<?php include'header.php';?>
<main>
    <h1 class="slideDown
animated">Tambah Data Guru &
Tenaga Pendidik </h1>
    <div class="form-style-5
slideDown animated">
        <div class="alert">
            <label
id="alert"></label>
        </div>
        <form>
            <fieldset>

                <legend><span
class="number">1</span> ID Sidik
Jari Pengguna:</legend>

                <label>Masukkan ID Sidik
Jari antara 1 & 127:</label>

                <input
type="number" name="fingerprint"
id="fingerprint" placeholder="User
Fingerprint ID...">

                <button type="button"
name="fingerprint_add"
class="fingerprint_add">Tambahkan ID
Sidik Jari</button>
            </fieldset>
        </fieldset>

        <legend><span
class="number">2</span> Info
Pengguna</legend>

        <input
type="text" name="name"
id="name" placeholder="User
Name...">

        <input
type="text" name="number"
id="number" placeholder="Serial
Number...">

        <input
type="email" name="email"
id="email" placeholder="User
Email...">
    </fieldset>
</fieldset>

    <legend><span
class="number">3</span> Info
Tambahan</legend>

    <label>
        Waktu
        Masuk:
    <input
type="time" name="timein"
id="timein">

    <input
type="radio" name="gender"
class="gender"
value="Female">Perempuan
    <input type="radio"
name="gender" class="gender"
value="Male"
checked="checked">Pria
    </label>

```

```

        </fieldset>
        <button
type="button" name="user_add"
class="user_add">Tambahkan
Pengguna</button>
        <button
type="button" name="user_upd"
class="user_upd">Perbarui
Pengguna</button>
        <button
type="button" name="user_rmo"
class="user_rmo">Hapus
Pengguna</button>
    </form>
</div>

<div class="section">
<!--User table-->
    <div class="tbl-
header slideInRight animated">
        <table
cellpadding="0" cellspacing="0"
border="0">
            <thead>
                <tr>
                    <th>Sidik Jari.
ID</th>
                    <th>Nama</th>
                    <th>Jenis
Kelamin</th>
                    <th>S.No</th>
                    <th>Tanggal</th>
                    <th>Waktu
Masuk</th>
                </tr>
            </thead>
        </table>
    </div>
    <div class="tbl-
content slideInRight animated">
        <table
cellpadding="0" cellspacing="0"
border="0">
            <div
id="manage_users"></div>
        </div>
    </div>

```

```

</main>
</body>
</html>

```

User.log.up.php

```

<table cellpadding="0"
cellspacing="0" border="0">
    <tbody>
        <?php

            session_start();
            //Connect to database
            require'connectDB.php';

            if (isset($_POST['log_date'])) {
                if ($_POST['date_sel'] != 0) {
                    $_SESSION['seldate'] =
$_POST['date_sel'];
                }
                else{
                    $_SESSION['seldate'] =
date("Y-m-d");
                }
            }

            if ($_POST['select_date'] == 1) {
                $_SESSION['seldate'] =
date("Y-m-d");
            }
            else if ($_POST['select_date'] ==
0) {
                $seldate =
$_SESSION['seldate'];
            }

            $sql = "SELECT * FROM
users_logs WHERE
checkindate='$seldate' ORDER BY
id DESC";
            $result =
mysqli_stmt_init($conn);
            if (!mysqli_stmt_prepare($result,
$sql)) {
                echo '<p class="error">SQL
Error</p>';
            }

```

```

        else{
            mysqli_stmt_execute($result);
            $resultl =
mysqli_stmt_get_result($result);
            if (mysqli_num_rows($resultl)
> 0){
                while ($row =
mysqli_fetch_assoc($resultl)){
                    ?>
                        <TR>
                            <TD><?php echo
$row['id'];?></TD>
                            <TD><?php echo
$row['username'];?></TD>
                            <TD><?php echo
$row['serialnumber'];?></TD>
                            <TD><?php echo
$row['fingerprint_id'];?></TD>
                            <TD><?php echo
$row['checkindate'];?></TD>
                            <TD><?php echo
$row['timein'];?></TD>
                            <TD><?php echo
$row['timeout'];?></TD>
                        </TR>
                    <?php
                        }
                    }
                ?>
            </tbody>
        </table>

```

Userlog.php

```

<!DOCTYPE html>
<html>
<head>
    <title>Users Logs</title>
    <link rel="stylesheet"
type="text/css"
href="css/userslog.css">
    <script>
        $(window).on("load resize ",
function() {
            var scrollWidth = $('tbl-
content').width() - $('tbl-content
table').width();

```

```

        $('tbl-header').css({'padding-
right':scrollWidth});
    }).resize();
</script>
    <script
src="https://code.jquery.com/jquery-
3.3.1.js"
        integrity="sha1256-
2Kok7MbOyxpgUVvAk/HJ2jigOSY
S2auK4Pfbzm7uH60="
        crossorigin="anonymous">
    </script>
    <script src="js/jquery-
2.2.3.min.js"></script>
    <script
src="js/user_log.js"></script>
    <script>
        $(document).ready(function(){
            $.ajax({
                url: "user_log_up.php",
                type: 'POST',
                data: {
                    'select_date': 1,
                }
            });
            setInterval(function(){
                $.ajax({
                    url: "user_log_up.php",
                    type: 'POST',
                    data: {
                        'select_date': 0,
                    }
                }).done(function(data) {
                    $('#userslog').html(data);
                });
            },5000);
        });
    </script>
</head>
<body>
    <?php include'header.php'; ?>
    <main>
        <section>
            <!--User table-->
            <h1 class="slideDown
animated">Catatan Harian Guru &
Tenaga Pendidik</h1>

```

```

        <div class="form-style-5
slideInDown animated">
            <form
method="POST"
action="Export_Excel.php">
                <input
type="date" name="date_sel"
id="date_sel">
                <button type="button"
name="user_log"
id="user_log">Pilih
Tanggal</button>
                <input
type="submit" name="To_Excel"
value="Export">
            </form>
        </div>
        <div class="tbl-header slideInRight
animated">
            <table cellpadding="0"
cellspacing="0" border="0">
                <thead>
                    <tr>
                        <th>No</th>
                        <th>Nama</th>
                        <th>Nomor Seri</th>
                        <th>Fingerprint ID</th>
                        <th>Tanggal</th>
                        <th>Masuk</th>
                        <th>Keluar</th>
                    </tr>
                </thead>
            </table>
        </div>
        <div class="tbl-content
slideInRight animated">
            <div id="userslog"></div>
        </div>
    </section>
</main>
</body>
</html>

```

Fingerprint_Nodemcu.ino

```

//This code created by Electronics
Tech channel
//*****
***libraries*****
*****
#include <SPI.h>
#include <Wire.h>
#include <WiFiClient.h>
#include <ESP8266WiFi.h>
#include <SoftwareSerial.h>
#include <ESP8266WebServer.h>
#include <ESP8266HTTPClient.h>
#include
<Adafruit_GFX.h> //https://git
hub.com/adafruit/Adafruit-GFX-
Library
#include
<Adafruit_SSD1306.h> //https://g
ithub.com/adafruit/Adafruit_SSD130
6
#include
<Adafruit_Fingerprint.h> //https://gi
thub.com/adafruit/Adafruit-
Fingerprint-Sensor-Library
//*****
*****
*****
//Fingerprint scanner Pins
#define Finger_Rx 14 //D6
#define Finger_Tx 12 //D5
#define relayPin 16 //D0
// Declaration for SSD1306 display
connected using software I2C
#define SCREEN_WIDTH 128 //
OLED display width, in pixels
#define SCREEN_HEIGHT 64 //
OLED display height, in pixels
#define OLED_RESET 0 // Reset
pin # (or -1 if sharing Arduino reset
pin)
Adafruit_SSD1306
display(SCREEN_WIDTH,
SCREEN_HEIGHT, &Wire,
OLED_RESET);

```

[illegible]


```
,0x00,0x00,0x3f,0x80,0x03,0xf8,0x0
0,0x00
,0x00,0x00,0x3f,0x00,0x01,0xf8,0x0
0,0x00
,0x00,0x00,0x1c,0x00,0x00,0x70,0x
00,0x00
,0x00,0x00,0x00,0x01,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x0f,0xe0,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x1f,0xf0,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x3f,0xf8,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x3f,0xf8,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x3f,0xf8,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x3f,0xf8,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x1f,0xf0,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x0f,0xe0,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
};
#define FinPr_start_width 64
#define FinPr_start_height 64
const uint8_t PROGMEM
FinPr_start_bits[] = {
    0x00,0x00,0x00,0x1f,0xe0,0x00,0x
00,0x00
,0x00,0x00,0x01,0xff,0xfe,0x00,0x0
0,0x00
```

```
,0x00,0x00,0x03,0xff,0xff,0x80,0x0
0,0x00
,0x00,0x00,0x0f,0xc0,0x0f,0xe0,0x0
0,0x00
,0x00,0x00,0x1f,0x00,0x01,0xf8,0x0
0,0x00
,0x00,0x00,0x3c,0x00,0x00,0x7c,0x
00,0x00
,0x00,0x00,0x78,0x00,0x00,0x3e,0x
00,0x00
,0x00,0x00,0xf0,0x3f,0xf8,0x0f,0x0
0,0x00
,0x00,0x01,0xe0,0xff,0xfe,0x07,0x8
0,0x00
,0x00,0x03,0xc3,0xff,0xff,0x03,0x80
,0x00
,0x00,0x03,0x87,0xc0,0x07,0xc3,0x
c0,0x00
,0x00,0x07,0x0f,0x00,0x03,0xe1,0xc
0,0x00
,0x00,0x0f,0x0e,0x00,0x00,0xe0,0xe
0,0x00
,0x00,0x0e,0x1c,0x00,0x00,0xf0,0xe
0,0x00
,0x00,0x0c,0x3c,0x1f,0xe0,0x70,0xe
0,0x00
,0x00,0x00,0x38,0x3f,0xf0,0x38,0x7
0,0x00
,0x00,0x00,0x78,0x78,0xf8,0x38,0x
70,0x00
,0x00,0x00,0x70,0x70,0x3c,0x18,0x
70,0x00
,0x00,0x00,0xe0,0xe0,0x1e,0x1c,0x7
0,0x00
,0x00,0x03,0xe1,0xe0,0x0e,0x1c,0x7
0,0x00
,0x00,0x0f,0xc1,0xc3,0x0e,0x1c,0x7
0,0x00
,0x00,0x3f,0x03,0xc3,0x8e,0x1c,0x7
0,0x00
,0x00,0x3e,0x03,0x87,0x0e,0x1c,0x
70,0x00
,0x00,0x30,0x07,0x07,0x0e,0x18,0x
e0,0x00
,0x00,0x00,0x0e,0x0e,0x0e,0x38,0xe
0,0x00
,0x00,0x00,0x3e,0x1e,0x1e,0x38,0xe
0,0x00
```

```

,0x00,0x00,0xf8,0x1c,0x1c,0x38,0xe
0,0x00
,0x00,0x03,0xf0,0x38,0x3c,0x38,0xe
0,0x00
,0x00,0x3f,0xc0,0xf8,0x78,0x38,0xe
0,0x00
,0x00,0x7f,0x01,0xf0,0x70,0x38,0xf
0,0x00
,0x00,0x78,0x03,0xe0,0xe0,0x38,0x
70,0x00
,0x00,0x00,0x0f,0x81,0xe0,0x38,0x7
c,0x00
,0x00,0x00,0x3f,0x03,0xc0,0x38,0x3
e,0x00
,0x00,0x00,0xfc,0x0f,0x80,0x38,0x1
e,0x00
,0x00,0x07,0xf0,0x1f,0x1c,0x1c,0x0
4,0x00
,0x00,0x3f,0xc0,0x3e,0x3f,0x1e,0x0
0,0x00
,0x00,0x7f,0x00,0xf8,0x7f,0x0f,0x0
0,0x00
,0x00,0x38,0x01,0xf0,0xf7,0x07,0xc
0,0x00
,0x00,0x00,0x07,0xe1,0xe3,0x83,0xf
8,0x00
,0x00,0x00,0x3f,0x87,0xc3,0xc0,0xf
c,0x00
,0x00,0x01,0xfe,0x0f,0x81,0xe0,0x3
c,0x00
,0x00,0x0f,0xf8,0x1f,0x00,0xf0,0x0
0,0x00
,0x00,0x1f,0xc0,0x7c,0x00,0x7c,0x0
0,0x00
,0x00,0x1e,0x01,0xf8,0x00,0x3f,0x0
0,0x00
,0x00,0x00,0x07,0xe0,0x78,0x0f,0xc
0,0x00
,0x00,0x00,0x3f,0x81,0xfe,0x07,0xf
0,0x00
,0x00,0x01,0xfe,0x07,0xff,0x01,0xf0
,0x00
,0x00,0x07,0xf8,0x0f,0x87,0x80,0x3
0,0x00
,0x00,0x07,0xc0,0x3f,0x03,0xe0,0x0
0,0x00
,0x00,0x06,0x00,0xfc,0x01,0xf8,0x0
0,0x00
,0x00,0x00,0x03,0xf0,0x00,0x7e,0x0
0,0x00
,0x00,0x00,0x0f,0xc0,0x00,0x3f,0x8
0,0x00
,0x00,0x00,0x7f,0x00,0xf8,0x0f,0x8
0,0x00
,0x00,0x00,0xfc,0x03,0xfe,0x01,0x8
0,0x00
,0x00,0x00,0xf0,0x1f,0xff,0x80,0x0
0,0x00
,0x00,0x00,0x00,0x7f,0x07,0xe0,0x0
0,0x00
,0x00,0x00,0x00,0xfc,0x03,0xf8,0x0
0,0x00
,0x00,0x00,0x03,0xf0,0x00,0x78,0x
00,0x00
,0x00,0x00,0x0f,0xc0,0x00,0x18,0x0
0,0x00
,0x00,0x00,0x0f,0x01,0xf8,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x07,0xfe,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x1f,0xfe,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x1e,0x0e,0x00,0x
00,0x00
,0x00,0x00,0x00,0x18,0x00,0x00,0x
00,0x00
};
//-----
-----
#define FinPr_valid_width 64
#define FinPr_valid_height 64
const uint8_t PROGMEM
FinPr_valid_bits[] = {
    0x00,0x00,0x03,0xfe,0x00,0x00,0x
00,0x00
,0x00,0x00,0x1f,0xff,0xe0,0x00,0x0
0,0x00
,0x00,0x00,0x7f,0xff,0xf8,0x00,0x0
0,0x00
,0x00,0x00,0xfc,0x00,0xfe,0x00,0x0
0,0x00
,0x00,0x03,0xe0,0x00,0x1f,0x00,0x0
0,0x00
,0x00,0x07,0xc0,0x00,0x07,0x80,0x
00,0x00

```

```
,0x00,0x0f,0x80,0x00,0x03,0xe0,0x0
0,0x00
,0x00,0x0e,0x03,0xff,0x01,0xe0,0x0
0,0x00
,0x00,0x1c,0x1f,0xff,0xe0,0xf0,0x00
,0x00
,0x00,0x3c,0x3f,0xff,0xf0,0x78,0x00
,0x00
,0x00,0x78,0x7c,0x00,0xf8,0x3c,0x0
0,0x00
,0x00,0x70,0xf0,0x00,0x3c,0x1c,0x0
0,0x00
,0x00,0xe1,0xe0,0x00,0x1e,0x1c,0x0
0,0x00
,0x00,0xe1,0xc0,0x00,0x0f,0x0e,0x0
0,0x00
,0x00,0xc3,0x81,0xfc,0x07,0x0e,0x0
0,0x00
,0x00,0x03,0x83,0xff,0x07,0x8e,0x0
0,0x00
,0x00,0x07,0x07,0x8f,0x83,0x87,0x
00,0x00
,0x00,0x0f,0x0f,0x03,0xc3,0x87,0x0
0,0x00
,0x00,0x1e,0x0e,0x01,0xc3,0x87,0x
00,0x00
,0x00,0x3c,0x1c,0x00,0xe1,0x87,0x
00,0x00
,0x00,0xf8,0x1c,0x30,0xe1,0x87,0x0
0,0x00
,0x07,0xf0,0x38,0x70,0xe1,0x86,0x0
0,0x00
,0x07,0xc0,0x78,0x70,0xe3,0x8e,0x
00,0x00
,0x02,0x00,0xf0,0xf0,0xe3,0x8e,0x0
0,0x00
,0x00,0x01,0xe0,0xe0,0xe3,0x8e,0x0
0,0x00
,0x00,0x03,0xc1,0xe1,0xc3,0x8e,0x0
0,0x00
,0x00,0x0f,0x83,0xc3,0xc3,0x8e,0x0
0,0x00
,0x00,0x7f,0x07,0x83,0x83,0x0e,0x0
0,0x00
,0x07,0xfc,0x0f,0x07,0x83,0x0e,0x0
0,0x00
,0x07,0xf0,0x1e,0x0f,0x03,0x0e,0x0
0,0x00
,0x07,0x80,0x7c,0x1e,0x03,0x07,0x
00,0x00
,0x00,0x00,0xf8,0x3c,0x03,0x87,0x8
0,0x00
,0x00,0x03,0xf0,0x78,0x03,0x83,0xc
0,0x00
,0x00,0x1f,0xc0,0xf0,0x02,0x00,0x0
0,0x00
,0x00,0xff,0x01,0xe1,0xc0,0x0c,0x0
0,0x00
,0x07,0xfc,0x03,0xc3,0xe1,0xff,0xc0
,0x00
,0x07,0xe0,0x0f,0x87,0xc7,0xff,0xf0
,0x00
,0x07,0x00,0x3f,0x0f,0x0f,0xff,0xfc,
0x00
,0x00,0x00,0x7c,0x3e,0x3f,0xff,0xfe
,0x00
,0x00,0x03,0xf8,0x7c,0x3f,0xff,0xff,
0x00
,0x00,0x1f,0xe0,0xf0,0x7f,0xff,0xff,
0x80
,0x00,0xff,0x83,0xe0,0xff,0xff,0xff,
0x80
,0x01,0xfc,0x07,0xc1,0xff,0xff,0xe3,
0xc0
,0x01,0xe0,0x1f,0x01,0xff,0xff,0xc3
,0xc0
,0x00,0x00,0xfe,0x01,0xff,0xff,0x87
,0xe0
,0x00,0x03,0xf8,0x13,0xff,0xff,0x0f,
0xe0
,0x00,0x1f,0xe0,0x73,0xff,0xfe,0x1f
,0xe0
,0x00,0x7f,0x81,0xf3,0xff,0xfc,0x1f,
0xe0
,0x00,0xfc,0x03,0xe3,0xef,0xf8,0x3f
,0xe0
,0x00,0x60,0x0f,0xc3,0xc7,0xf0,0x7
f,0xe0
,0x00,0x00,0x3f,0x03,0xc3,0xe0,0xf
f,0xe0
,0x00,0x00,0xfc,0x03,0xc1,0xc1,0xf
f,0xe0
,0x00,0x07,0xf0,0x13,0xe0,0x83,0xf
f,0xe0
,0x00,0x0f,0xc0,0x7b,0xf8,0x07,0xff
,0xe0
```

```
,0x00,0x0f,0x01,0xf9,0xfc,0x0f,0xff,
0xc0
,0x00,0x00,0x07,0xf1,0xfe,0x1f,0xff
,0xc0
,0x00,0x00,0x1f,0xc0,0xff,0x3f,0xff,
0x80
,0x00,0x00,0x7e,0x00,0xff,0xff,0xff,
0x80
,0x00,0x00,0xfc,0x00,0x7f,0xff,0xff,
0x00
,0x00,0x00,0xf0,0x1f,0x3f,0xff,0xfe,
0x00
,0x00,0x00,0x00,0x7f,0x1f,0xff,0xfc
,0x00
,0x00,0x00,0x01,0xff,0x8f,0xff,0xf8,
0x00
,0x00,0x00,0x03,0xe0,0xe3,0xff,0xe
0,0x00
,0x00,0x00,0x01,0x80,0x00,0x7f,0x
00,0x00
};
//-----
-----
#define FinPr_invalid_width 64
#define FinPr_invalid_height 64
const uint8_t PROGMEM
FinPr_invalid_bits[] = {
    0x00,0x00,0x03,0xfe,0x00,0x00,0x
00,0x00
,0x00,0x00,0x1f,0xff,0xe0,0x00,0x0
0,0x00
,0x00,0x00,0x7f,0xff,0xf8,0x00,0x0
0,0x00
,0x00,0x00,0xfc,0x00,0xfe,0x00,0x0
0,0x00
,0x00,0x03,0xe0,0x00,0x1f,0x00,0x0
0,0x00
,0x00,0x07,0xc0,0x00,0x07,0x80,0x
00,0x00
,0x00,0x0f,0x80,0x00,0x03,0xe0,0x0
0,0x00
,0x00,0x0e,0x03,0xff,0x01,0xe0,0x0
0,0x00
,0x00,0x1c,0x1f,0xff,0xe0,0xf0,0x00
,0x00
,0x00,0x3c,0x3f,0xff,0xf0,0x78,0x00
,0x00
```

```
,0x00,0x78,0x7c,0x00,0xf8,0x3c,0x0
0,0x00
,0x00,0x70,0xf0,0x00,0x3c,0x1c,0x0
0,0x00
,0x00,0xe1,0xe0,0x00,0x1e,0x1c,0x0
0,0x00
,0x00,0xe1,0xc0,0x00,0x0f,0x0e,0x0
0,0x00
,0x00,0xc3,0x81,0xfc,0x07,0x0e,0x0
0,0x00
,0x00,0x03,0x83,0xff,0x07,0x8e,0x0
0,0x00
,0x00,0x07,0x07,0x8f,0x83,0x87,0x
00,0x00
,0x00,0x0f,0x0f,0x03,0xc3,0x87,0x0
0,0x00
,0x00,0x1e,0x0e,0x01,0xc3,0x87,0x
00,0x00
,0x00,0x3c,0x1c,0x00,0xe1,0x87,0x
00,0x00
,0x00,0xf8,0x1c,0x30,0xe1,0x87,0x0
0,0x00
,0x07,0xf0,0x38,0x70,0xe1,0x86,0x0
0,0x00
,0x07,0xc0,0x78,0x70,0xe3,0x8e,0x
00,0x00
,0x02,0x00,0xf0,0xf0,0xe3,0x8e,0x0
0,0x00
,0x00,0x01,0xe0,0xe0,0xe3,0x8e,0x0
0,0x00
,0x00,0x03,0xc1,0xe1,0xc3,0x8e,0x0
0,0x00
,0x00,0x0f,0x83,0xc3,0xc3,0x8e,0x0
0,0x00
,0x00,0x7f,0x07,0x83,0x83,0x0e,0x0
0,0x00
,0x07,0xfc,0x0f,0x07,0x83,0x0e,0x0
0,0x00
,0x07,0xf0,0x1e,0x0f,0x03,0x0e,0x0
0,0x00
,0x07,0x80,0x7c,0x1e,0x03,0x07,0x
00,0x00
,0x00,0x00,0xf8,0x3c,0x03,0x87,0x8
0,0x00
,0x00,0x03,0xf0,0x78,0x03,0x83,0xc
0,0x00
,0x00,0x1f,0xc0,0xf0,0x02,0x00,0x0
0,0x00
```

```
,0x00,0xff,0x01,0xe1,0xc0,0x00,0x0
0,0x00
,0x07,0xfc,0x03,0xc3,0xe1,0xff,0xc0
,0x00
,0x07,0xe0,0x0f,0x87,0xc7,0xff,0xf0
,0x00
,0x07,0x00,0x3f,0x0f,0x0f,0xff,0xf8,
0x00
,0x00,0x00,0x7c,0x3e,0x1f,0xff,0xfe
,0x00
,0x00,0x03,0xf8,0x7c,0x3f,0xff,0xff,
0x00
,0x00,0x1f,0xe0,0xf0,0x7f,0xff,0xff,
0x00
,0x00,0xff,0x83,0xe0,0xfe,0xff,0xbf,
0x80
,0x01,0xfc,0x07,0xc0,0xfc,0x7f,0x1f
,0xc0
,0x01,0xe0,0x1f,0x01,0xf8,0x3e,0x0
f,0xc0
,0x00,0x00,0xfe,0x01,0xf8,0x1c,0x0
7,0xe0
,0x00,0x03,0xf8,0x13,0xf8,0x00,0x0
f,0xe0
,0x00,0x1f,0xe0,0x73,0xfc,0x00,0x1
f,0xe0
,0x00,0x7f,0x81,0xf3,0xfe,0x00,0x3f
,0xe0
,0x00,0xfc,0x03,0xe3,0xff,0x00,0x7f
,0xe0
,0x00,0x60,0x0f,0xc3,0xff,0x80,0xff
,0xe0
,0x00,0x00,0x3f,0x03,0xff,0x00,0x7
f,0xe0
,0x00,0x00,0xfc,0x03,0xfe,0x00,0x3
f,0xe0
,0x00,0x07,0xf0,0x13,0xfc,0x00,0x1
f,0xe0
,0x00,0x0f,0xc0,0x79,0xf8,0x08,0x0
f,0xe0
,0x00,0x0f,0x01,0xf9,0xf8,0x1c,0x0f
,0xc0
,0x00,0x00,0x07,0xf1,0xfc,0x3e,0x1
f,0xc0
,0x00,0x00,0x1f,0xc0,0xfe,0x7f,0x3f
,0x80
,0x00,0x00,0x7e,0x00,0xff,0xff,0xff,
0x80
,0x00,0x00,0xfc,0x00,0x7f,0xff,0xff,
0x00
,0x00,0x00,0xf0,0x1f,0x3f,0xff,0xfe,
0x00
,0x00,0x00,0x00,0x7f,0x1f,0xff,0xfc
,0x00
,0x00,0x00,0x01,0xff,0x8f,0xff,0xf8,
0x00
,0x00,0x00,0x03,0xe0,0xe3,0xff,0xe
0,0x00
,0x00,0x00,0x01,0x80,0x00,0x7f,0x
00,0x00
};
//-----
-----
#define FinPr_failed_width 64
#define FinPr_failed_height 64
const uint8_t PROGMEM
FinPr_failed_bits[] = {
0x00,0x00,0x3f,0xe0,0x00,0x00,0x0
0,0x00
,0x00,0x01,0xff,0xfe,0x00,0x00,0x0
0,0x00
,0x00,0x0f,0xc0,0x1f,0x80,0x00,0x0
0,0x00
,0x00,0x1e,0x00,0x03,0xc0,0x00,0x
00,0x00
,0x00,0x78,0x00,0x00,0xf0,0x00,0x
00,0x00
,0x00,0xe0,0x00,0x00,0x38,0x00,0x
00,0x00
,0x01,0xc0,0x00,0x00,0x1c,0x00,0x
00,0x00
,0x03,0x80,0x00,0x00,0x0e,0x00,0x
00,0x00
,0x07,0x00,0x7f,0xe0,0x07,0x00,0x0
0,0x00
,0x06,0x01,0xff,0xf8,0x03,0x00,0x0
0,0x00
,0x0c,0x03,0xc0,0x3c,0x03,0x80,0x
00,0x00
,0x1c,0x0f,0x00,0x0e,0x01,0x80,0x0
0,0x00
,0x18,0x0c,0x00,0x03,0x00,0xc0,0x
00,0x00
,0x18,0x18,0x00,0x01,0x80,0xc0,0x
00,0x00
```

```
,0x30,0x38,0x00,0x01,0xc0,0xe0,0x
00,0x00
,0x30,0x30,0x0f,0x00,0xc0,0x60,0x0
0,0x00
,0x30,0x30,0x3f,0xc0,0xe0,0x60,0x0
0,0x00
,0x70,0x60,0x78,0xe0,0x60,0x60,0x
00,0x00
,0x60,0x60,0x60,0x60,0x60,0x70,0x
00,0x00
,0x60,0x60,0x60,0x60,0x60,0x30,0x
00,0x00
,0x60,0x60,0x60,0x60,0x30,0x30,0x
00,0x00
,0x60,0x60,0x60,0x30,0x30,0x20,0x
00,0x00
,0x60,0x60,0x60,0x30,0x30,0x01,0x
e0,0x00
,0x60,0x60,0x60,0x30,0x30,0x0f,0xf
c,0x00
,0x60,0x60,0x60,0x30,0x30,0x3f,0xf
f,0x00
,0x60,0x60,0x60,0x30,0x18,0x78,0x
03,0x80
,0x60,0x60,0x60,0x30,0x1c,0x60,0x
01,0x80
,0x60,0x60,0x30,0x38,0x0c,0xc0,0x
00,0xc0
,0x00,0x60,0x30,0x18,0x00,0xc0,0x
00,0xc0
,0x00,0x60,0x30,0x18,0x00,0xc0,0x
00,0xc0
,0x00,0xe0,0x30,0x0c,0x01,0xc0,0x
00,0xe0
,0x00,0xc0,0x18,0x0e,0x01,0xc0,0x
00,0xe0
,0x60,0xc0,0x18,0x07,0x01,0xc0,0x
00,0xe0
,0x01,0xc0,0x1c,0x03,0x81,0xc0,0x
00,0xe0
,0x01,0x80,0x0c,0x01,0xc1,0xc0,0x
00,0xe0
,0x03,0x80,0x0e,0x00,0xf1,0xc0,0x0
0,0xe0
,0x0f,0x00,0x06,0x00,0x01,0xc0,0x0
0,0xe0
,0x3e,0x01,0x03,0x00,0x01,0xc0,0x
00,0xe0
,0x30,0x03,0x83,0x80,0x1f,0xff,0xff
,0xfe
,0x00,0x03,0x81,0xc0,0x3f,0xff,0xff
,0xff
,0x00,0x07,0xc0,0xe0,0x30,0x00,0x
00,0x03
,0x00,0x0e,0xc0,0x78,0x30,0x00,0x
00,0x03
,0x00,0x3c,0x60,0x1e,0x30,0x00,0x
00,0x03
,0x00,0x78,0x70,0x0f,0x30,0x00,0x
00,0x03
,0x03,0xe0,0x38,0x03,0x30,0x00,0x
00,0x03
,0x07,0x80,0x1c,0x00,0x30,0x00,0x
00,0x03
,0xc0,0x00,0x0f,0x00,0x30,0x00,0x0
0,0x03
,0xc0,0x00,0x03,0x80,0x30,0x01,0x
e0,0x03
,0x00,0x18,0x01,0xe0,0x30,0x03,0xf
0,0x03
,0x00,0x18,0x00,0x7c,0x30,0x07,0x
38,0x03
,0x00,0x0c,0x00,0x1f,0x30,0x06,0x1
8,0x03
,0x18,0x0e,0x00,0x07,0x30,0x06,0x
18,0x03
,0x0c,0x07,0x80,0x00,0x30,0x07,0x
38,0x03
,0x0e,0x03,0xc0,0x00,0x30,0x03,0x
30,0x03
,0x07,0x00,0xf0,0x00,0x30,0x03,0x
30,0x03
,0x03,0x00,0x7e,0x00,0x30,0x03,0x
30,0x03
,0x01,0x80,0x1f,0xc0,0x30,0x03,0x3
0,0x03
,0x01,0xc0,0x03,0xe1,0x30,0x07,0xf
8,0x03
,0x00,0xf0,0x00,0x01,0x30,0x03,0xf
0,0x03
,0x00,0x38,0x00,0x00,0x30,0x00,0x
00,0x03
,0x00,0x1e,0x00,0x00,0x30,0x00,0x
00,0x03
,0x00,0x07,0xc0,0x00,0x30,0x00,0x
00,0x03
```

```
,0x00,0x01,0xff,0x80,0x3f,0xff,0xff,
0xff
,0x00,0x00,0x3f,0x80,0x1f,0xff,0xff,
0xfe
};
//-----
-----
#define FinPr_scan_width 64
#define FinPr_scan_height 64
const uint8_t PROGMEM
FinPr_scan_bits[] = {
    0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x1f,0xf8,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x7f,0xff,0x00,0x0
0,0x00
,0x00,0x00,0x01,0xfc,0x7f,0xc0,0x0
0,0x00
,0x00,0x00,0x03,0xc0,0x03,0xe0,0x
00,0x00
,0x00,0x00,0x07,0x80,0x00,0xf0,0x
00,0x00
,0x00,0x00,0x0e,0x00,0x00,0x3c,0x
00,0x00
,0x00,0x00,0x1c,0x1f,0xfc,0x1c,0x0
0,0x00
,0x00,0x00,0x38,0x7f,0xfe,0x0e,0x0
0,0x00
,0x00,0x00,0x78,0xf8,0x0f,0x87,0x0
0,0x00
,0x00,0x00,0x71,0xe0,0x03,0xc7,0x
00,0x00
,0x00,0x00,0xe3,0x80,0x01,0xc3,0x
80,0x00
,0x00,0x00,0xc3,0x83,0xc0,0xe3,0x
80,0x00
,0x00,0x00,0xc7,0x0f,0xf0,0x71,0x8
0,0x00
,0x00,0x00,0x06,0x1f,0xf8,0x71,0xc
0,0x00
,0x00,0x00,0x0e,0x1c,0x3c,0x31,0xc
0,0x00
,0x00,0x00,0x1c,0x38,0x1c,0x31,0x
c0,0x00
,0x00,0x00,0x38,0x70,0x0e,0x39,0x
c0,0x00
,0x00,0x01,0xf0,0x71,0x8e,0x39,0xc
0,0x00
,0x00,0x03,0xe0,0xe1,0x86,0x31,0x
c0,0x00
,0x00,0x03,0x81,0xe3,0x8e,0x31,0x
80,0x00
,0x00,0x00,0x03,0xc3,0x8e,0x33,0x
80,0x00
,0x00,0x00,0x07,0x87,0x0c,0x73,0x
80,0x00
,0x00,0x00,0x1f,0x0e,0x1c,0x73,0x8
0,0x00
,0x7f,0xff,0xff,0xff,0xff,0xff,0x
fe
,0xff,0xff,0xff,0xff,0xff,0xff,0xf
f
,0xff,0xff,0xff,0xff,0xff,0xff,0xf
f
,0x7f,0xff,0xff,0xff,0xff,0xff,0x
fe
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x
00,0x00
,0x00,0x03,0xf0,0x1e,0x3e,0x1c,0x0
0,0x00
,0x00,0x03,0x80,0x7c,0x77,0x0f,0x0
0,0x00
,0x00,0x00,0x01,0xf0,0xe3,0x07,0xc
0,0x00
,0x00,0x00,0x07,0xe3,0xc3,0x81,0xf
0,0x00
,0x00,0x00,0x3f,0x87,0x81,0xc0,0x6
0,0x00
,0x00,0x01,0xfc,0x1f,0x00,0xf0,0x0
0,0x00
,0x00,0x01,0xe0,0x3c,0x00,0x7c,0x
00,0x00
```

```
,0x00,0x00,0x00,0xf8,0x78,0x1f,0x0
0,0x00
,0x00,0x00,0x07,0xe0,0xfc,0x0f,0xc
0,0x00
,0x00,0x00,0x3f,0x83,0xef,0x03,0xc
0,0x00
,0x00,0x00,0xfc,0x0f,0x87,0x80,0x0
0,0x00
,0x00,0x00,0x70,0x1f,0x03,0xe0,0x0
0,0x00
,0x00,0x00,0x00,0x7c,0x00,0xf8,0x0
0,0x00
,0x00,0x00,0x01,0xf0,0x00,0x3e,0x0
0,0x00
,0x00,0x00,0x0f,0xc0,0xf8,0x0f,0x0
0,0x00
,0x00,0x00,0x1f,0x03,0xfe,0x02,0x0
0,0x00
,0x00,0x00,0x0c,0x0f,0x8f,0x80,0x0
0,0x00
,0x00,0x00,0x00,0x3f,0x03,0xe0,0x0
0,0x00
,0x00,0x00,0x00,0xf8,0x00,0xf0,0x0
0,0x00
,0x00,0x00,0x01,0xe0,0x00,0x30,0x0
0,0x00
,0x00,0x00,0x01,0xc0,0xf8,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x07,0xfe,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x0f,0x8e,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x06,0x00,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x0
0,0x00
,0x00,0x00,0x00,0x00,0x00,0x00,0x0
0,0x00
};
//*****
*****
*****
```

```
void setup() {

  Serial.begin(115200);

  //-----initiate OLED display----
  -----

  // SSD1306_SWITCHCAPVCC =
  generate display voltage from 3.3V
  internally
  if(!display.begin(SSD1306_SWITC
  HCAPVCC, 0x3C)) { // Address
  0x3D for 128x64
    Serial.println(F("SSD1306
  allocation failed"));
    for(;;); // Don't proceed, loop
  forever
  }
  // Show initial display buffer
  contents on the screen --
  // the library initializes this with an
  Adafruit splash screen.
  // you can delet these three lines if
  you don't want to get the Adfruit
  logo appear
  display.display();
  delay(2000); // Pause for 2 seconds
  display.clearDisplay();

  //-----
  ----

  connectToWiFi();

  //-----
  ----

  // set the data rate for the sensor
  serial port
  finger.begin(57600);
  Serial.println("\n\nAdafruit finger
  detect test");

  if (finger.verifyPassword()) {
    Serial.println("Found fingerprint
  sensor!");
    display.clearDisplay();
```

```

    display.drawBitmap( 34, 0,
    FinPr_valid_bits, FinPr_valid_width,
    FinPr_valid_height, WHITE);
    display.display();
  } else {
    Serial.println("Did not find
fingerprint sensor :(");
    display.clearDisplay();
    display.drawBitmap( 32, 0,
    FinPr_failed_bits,
    FinPr_failed_width,
    FinPr_failed_height, WHITE);
    display.display();
    while (1) { delay(1); }
  }
  //-----
  ----

  finger.getTemplateCount();
  Serial.print("Sensor contains ");
  Serial.print(finger.templateCount);
  Serial.println(" templates");
  Serial.println("Waiting for valid
finger...");

  //-----*test the connection*-----
  -----

  //SendFingerprintID( FingerID );
  pinMode(relayPin, OUTPUT);
  // digitalWrite(relayPin, HIGH);

}
//*****
*****
*****

void loop() {

  //check if there's a connection to
WiFi or not
  if(WiFi.status() !=
WL_CONNECTED){
    connectToWiFi();
  }
  //-----
  ----

  //If there no fingerprint has been
scanned return -1 or -2 if there an

```

```

error or 0 if there nothing, The ID
start form 1 to 127
  FingerID = getFingerprintID(); //
Get the Fingerprint ID from the
Scanner
  // relay();
  delay(50);          //don't need to run
this at full speed.
  //digitalWrite(relayPin, HIGH);
  //-----
  ----

  DisplayFingerprintID();

  //-----
  ----

  ChecktoAddID();

  //-----
  ----

  ChecktoDeleteID();

  //-----
  ----
}

//*****Display the
fingerprint ID state on the
OLED*****
void DisplayFingerprintID(){
  //Fingerprint has been detected
  if (FingerID > 0){
    display.clearDisplay();
    display.drawBitmap( 34, 0,
    FinPr_valid_bits, FinPr_valid_width,
    FinPr_valid_height, WHITE);
    display.display();

    SendFingerprintID( FingerID ); //
Send the Fingerprint ID to the
website.

  }
  //-----
  ----

  //No finger detected

```

```

else if (FingerID == 0){
    display.clearDisplay();
    display.drawBitmap( 32, 0,
FinPr_start_bits, FinPr_start_width,
FinPr_start_height, WHITE);
    display.display();
}
//-----
//Didn't find a match
else if (FingerID == -1){
    display.clearDisplay();
    display.drawBitmap( 34, 0,
FinPr_invalid_bits,
FinPr_invalid_width,
FinPr_invalid_height, WHITE);
    display.display();
}
//-----
//Didn't find the scanner or there an
error
else if (FingerID == -2){
    display.clearDisplay();
    display.drawBitmap( 32, 0,
FinPr_failed_bits,
FinPr_failed_width,
FinPr_failed_height, WHITE);
    display.display();
}
}
//*****send the fingerprint
ID to the website*****
void SendFingerprintID( int finger ){

    HTTPClient http; //Declare object
of class HTTPClient
    //Post Data
    postData = "FingerID=" +
String(finger); // Add the Fingerprint
ID to the Post array in order to send
it
    // Post methode

    http.begin(link); //initiate HTTP
request, put your Website URL or
Your Computer IP

    http.addHeader("Content-Type",
"application/x-www-form-
urlencoded"); //Specify content-
type header

    int httpCode =
http.POST(postData); //Send the
request
    String payload =
http.getString(); //Get the response
payload

    Serial.println(httpCode); //Print
HTTP return code
    Serial.println(payload); //Print
request response payload
    Serial.println(postData); //Post
Data
    Serial.println(finger); //Print
fingerprint ID

    if (payload.substring(0, 5) ==
"login") {
        String user_name =
payload.substring(5);
        // Serial.println(user_name);

        display.clearDisplay();
        display.setTextSize(2); //
Normal 2:2 pixel scale
        display.setTextColor(WHITE);
        // Draw white text
        display.setCursor(15,0); //
Start at top-left corner
        display.print(F("Welcome"));
        display.setCursor(0,20);
        display.print(user_name);
        display.display();
    }
    else if (payload.substring(0, 6) ==
"logout") {
        String user_name =
payload.substring(6);
        // Serial.println(user_name);

        display.clearDisplay();

```

```

    display.setTextSize(2);          //
    Normal 2:2 pixel scale
    display.setTextColor(WHITE);
    // Draw white text
    display.setCursor(10,0);          //
    Start at top-left corner
    display.print(F("Good Bye"));
    display.setCursor(0,20);
    display.print(user_name);
    display.display();
}
delay(1000);

postData = "";
http.end(); //Close connection
digitalWrite(relayPin, LOW);
delay(10000);
digitalWrite(relayPin, HIGH);
}
//*****Get the
Fingerprint ID*****
int getFingerprintID() {
    uint8_t p = finger.getImage();
    switch (p) {
        case FINGERPRINT_OK:
            //Serial.println("Image taken");
            break;
        case
FINGERPRINT_NOFINGER:
            //Serial.println("No finger
detected");
            return 0;
        case
FINGERPRINT_PACKETRECEIVED:
            //Serial.println("Communication
error");
            return -2;
        case
FINGERPRINT_IMAGEFAIL:
            //Serial.println("Imaging error");
            return -2;
        default:
            //Serial.println("Unknown
error");
            return -2;
    }
    // OK success!

    p = finger.image2Tz();
    switch (p) {
        case FINGERPRINT_OK:
            //Serial.println("Image
converted");
            break;
        case
FINGERPRINT_IMAGEMESS:
            //Serial.println("Image too
messy");
            return -1;
        case
FINGERPRINT_PACKETRECEIVED:
            //Serial.println("Communication
error");
            return -2;
        case
FINGERPRINT_FEATUREFAIL:
            //Serial.println("Could not find
fingerprint features");
            return -2;
        case
FINGERPRINT_INVALIDIMAGE:
            //Serial.println("Could not find
fingerprint features");
            return -2;
        default:
            //Serial.println("Unknown
error");
            return -2;
    }
    // OK converted!
    p = finger.fingerFastSearch();
    if (p == FINGERPRINT_OK) {
        //Serial.println("Found a print
match!");
    } else if (p ==
FINGERPRINT_PACKETRECEIVED:
            //Serial.println("Communication
error");
            return -2;
        } else if (p ==
FINGERPRINT_NOTFOUND) {
            //Serial.println("Did not find a
match");
            return -1;

```

```

    } else {
        //Serial.println("Unknown error");
        return -2;
    }
    // found a match!
    //Serial.print("Found ID #");
    Serial.print(finger.fingerID);
    //Serial.print(" with confidence of
    "); Serial.println(finger.confidence);

    return finger.fingerID;
}
//*****Check if
there a Fingerprint ID to
delete*****
void ChecktoDeleteID(){

    HTTPClient http; //Declare object
of class HTTPClient
    //Post Data
    postData = "DeleteID=check"; //
Add the Fingerprint ID to the Post
array in order to send it
    // Post methode

    http.begin(link); //initiate HTTP
request, put your Website URL or
Your Computer IP
    http.addHeader("Content-Type",
"application/x-www-form-
urlencoded"); //Specify content-
type header

    int httpCode =
http.POST(postData); //Send the
request
    String payload =
http.getString(); //Get the response
payload

    if (payload.substring(0, 6) == "del-
id") {
        String del_id =
payload.substring(6);
        Serial.println(del_id);
        deleteFingerprint( del_id.toInt() );
    }

    http.end(); //Close connection
}
//*****Delete
Fingerprint ID*****
uint8_t deleteFingerprint( int id) {
    uint8_t p = -1;

    p = finger.deleteModel(id);

    if (p == FINGERPRINT_OK) {
        //Serial.println("Deleted!");
        display.clearDisplay();
        display.setTextSize(2); //
Normal 2:2 pixel scale
        display.setTextColor(WHITE);
        // Draw white text
        display.setCursor(0,0); //
Start at top-left corner
        display.print(F("Deleted!\n"));
        display.display();
    } else if (p ==
FINGERPRINT_PACKETRECEIV
EERR) {
        //Serial.println("Communication
error");
        display.clearDisplay();
        display.setTextSize(1); //
Normal 1:1 pixel scale
        display.setTextColor(WHITE);
        // Draw white text
        display.setCursor(0,0); //
Start at top-left corner
        display.print(F("Communication
error!\n"));
        display.display();
        return p;
    } else if (p ==
FINGERPRINT_BADLOCATION)
    {
        //Serial.println("Could not delete
in that location");
        display.clearDisplay();
        display.setTextSize(1); //
Normal 1:1 pixel scale
        display.setTextColor(WHITE);
        // Draw white text

```

```

        display.setCursor(0,0);          //
Start at top-left corner
        display.print(F("Could not delete
in that location!\n"));
        display.display();
        return p;
    } else if (p ==
FINGERPRINT_FLASHERR) {
        //Serial.println("Error writing to
flash");
        display.clearDisplay();
        display.setTextSize(1);          //
Normal 1:1 pixel scale
        display.setTextColor(WHITE);
        // Draw white text
        display.setCursor(0,0);          //
Start at top-left corner
        display.print(F("Error writing to
flash!\n"));
        display.display();
        return p;
    } else {
        //Serial.print("Unknown error:
0x"); Serial.println(p, HEX);
        display.clearDisplay();
        display.setTextSize(2);          //
Normal 2:2 pixel scale
        display.setTextColor(WHITE);
        // Draw white text
        display.setCursor(0,0);          //
Start at top-left corner
        display.print(F("Unknown
error:\n"));
        display.display();
        return p;
    }
}
//*****Check if
there a Fingerprint ID to
add*****
void ChecktoAddID(){

    HTTPClient http; //Declare object
of class HTTPClient
    //Post Data
    postData = "Get_Fingerid=get_id";
    // Add the Fingerprint ID to the Post
array in order to send it

// Post methode

    http.begin(link); //initiate HTTP
request, put your Website URL or
Your Computer IP
    http.addHeader("Content-Type",
"application/x-www-form-
urlencoded"); //Specify content-
type header

    int httpCode =
http.POST(postData); //Send the
request
    String payload =
http.getString(); //Get the response
payload

    if (payload.substring(0, 6) == "add-
id") {
        String add_id =
payload.substring(6);
        Serial.println(add_id);
        id = add_id.toInt();
        getFingerprintEnroll();
    }
    http.end(); //Close connection
}
//*****Enroll a
Fingerprint ID*****
uint8_t getFingerprintEnroll() {

    int p = -1;
    display.clearDisplay();
    display.drawBitmap( 34, 0,
FinPr_scan_bits, FinPr_scan_width,
FinPr_scan_height, WHITE);
    display.display();
    while (p != FINGERPRINT_OK) {
        p = finger.getImage();
        switch (p) {
            case FINGERPRINT_OK:
                //Serial.println("Image taken");
                display.clearDisplay();
                display.drawBitmap( 34, 0,
FinPr_valid_bits, FinPr_valid_width,
FinPr_valid_height, WHITE);
                display.display();
                break;

```

```

        case
FINGERPRINT_NOFINGER:
    //Serial.println(".");
    display.setTextSize(1);          //
Normal 2:2 pixel scale
    display.setTextColor(WHITE);
    // Draw white text
    display.setCursor(0,0);          //
Start at top-left corner
    display.print(F("scanning"));
    display.display();
    break;
    case
FINGERPRINT_PACKETRECEIVED:
EERR:
    display.clearDisplay();
    display.drawBitmap( 34, 0,
FinPr_invalid_bits,
FinPr_invalid_width,
FinPr_invalid_height, WHITE);
    display.display();
    break;
    case
FINGERPRINT_IMAGEFAIL:
    Serial.println("Imaging error");
    break;
    default:
    Serial.println("Unknown error");
    break;
    }
}

// OK success!

p = finger.getImage(1);
switch (p) {
    case FINGERPRINT_OK:
        display.clearDisplay();
        display.drawBitmap( 34, 0,
FinPr_valid_bits, FinPr_valid_width,
FinPr_valid_height, WHITE);
        display.display();
        break;
    case
FINGERPRINT_IMAGEMESS:
        display.clearDisplay();
        display.drawBitmap( 34, 0,
FinPr_invalid_bits,
FinPr_invalid_width,
FinPr_invalid_height, WHITE);
        display.display();
        return p;
    case
FINGERPRINT_PACKETRECEIVED:
EERR:
        Serial.println("Communication
error");
        return p;
    case
FINGERPRINT_FEATUREFAIL:
        Serial.println("Could not find
fingerprint features");
        return p;
    case
FINGERPRINT_INVALIDIMAGE:
        Serial.println("Could not find
fingerprint features");
        return p;
    default:
        Serial.println("Unknown error");
        return p;
    }
    display.clearDisplay();
    display.setTextSize(2);          //
Normal 2:2 pixel scale
    display.setTextColor(WHITE);
    // Draw white text
    display.setCursor(0,0);          //
Start at top-left corner
    display.print(F("Remove"));
    display.setCursor(0,20);
    display.print(F("finger"));
    display.display();
    //Serial.println("Remove finger");
    delay(2000);
    p = 0;
    while (p !=
FINGERPRINT_NOFINGER) {
        p = finger.getImage();
    }
    Serial.print("ID ");
    Serial.println(id);
    p = -1;
    display.clearDisplay();

```

```

    display.drawBitmap( 34, 0,
    FinPr_scan_bits, FinPr_scan_width,
    FinPr_scan_height, WHITE);
    display.display();
    while (p != FINGERPRINT_OK) {
        p = finger.getImage();
        switch (p) {
            case FINGERPRINT_OK:
                //Serial.println("Image taken");
                display.clearDisplay();
                display.drawBitmap( 34, 0,
                FinPr_valid_bits, FinPr_valid_width,
                FinPr_valid_height, WHITE);
                display.display();
                break;
            case
FINGERPRINT_NOFINGER:
                //Serial.println(".");
                display.setTextSize(1);          //
Normal 2:2 pixel scale
                display.setTextColor(WHITE);
                // Draw white text
                display.setCursor(0,0);          //
Start at top-left corner
                display.print(F("scanning"));
                display.display();
                break;
            case
FINGERPRINT_PACKETRECEIVED:
                Serial.println("Communication
error");
                break;
            case
FINGERPRINT_IMAGEFAIL:
                Serial.println("Imaging error");
                break;
            default:
                Serial.println("Unknown error");
                break;
        }
    }

    // OK success!

    p = finger.image2Tz(2);
    switch (p) {
        case FINGERPRINT_OK:

                //Serial.println("Image
converted");
                display.clearDisplay();
                display.drawBitmap( 34, 0,
                FinPr_valid_bits, FinPr_valid_width,
                FinPr_valid_height, WHITE);
                display.display();
                break;
            case
FINGERPRINT_IMAGEMESS:
                Serial.println("Image too
messy");
                return p;
            case
FINGERPRINT_PACKETRECEIVED:
                Serial.println("Communication
error");
                return p;
            case
FINGERPRINT_FEATUREFAIL:
                Serial.println("Could not find
fingerprint features");
                return p;
            case
FINGERPRINT_INVALIDIMAGE:
                Serial.println("Could not find
fingerprint features");
                return p;
            default:
                Serial.println("Unknown error");
                return p;
        }

        // OK converted!
        Serial.print("Creating model for
#"); Serial.println(id);

        p = finger.createModel();
        if (p == FINGERPRINT_OK) {
            //Serial.println("Prints matched!");
            display.clearDisplay();
            display.drawBitmap( 34, 0,
            FinPr_valid_bits, FinPr_valid_width,
            FinPr_valid_height, WHITE);
            display.display();

```

```

    } else if (p ==
FINGERPRINT_PACKETRECEIVED) {
    Serial.println("Communication
error");
    return p;
    } else if (p ==
FINGERPRINT_ENROLLMISMATCH) {
    Serial.println("Fingerprints did not
match");
    return p;
    } else {
    Serial.println("Unknown error");
    return p;
    }

    Serial.print("ID ");
    Serial.println(id);
    p = finger.storeModel(id);
    if (p == FINGERPRINT_OK) {
    //Serial.println("Stored!");
    display.clearDisplay();
    display.drawBitmap( 34, 0,
FinPr_valid_bits, FinPr_valid_width,
FinPr_valid_height, WHITE);
    display.display();
    confirmAdding();
    } else if (p ==
FINGERPRINT_PACKETRECEIVED) {
    Serial.println("Communication
error");
    return p;
    } else if (p ==
FINGERPRINT_BADLOCATION)
    {
    Serial.println("Could not store in
that location");
    return p;
    } else if (p ==
FINGERPRINT_FLASHERR) {
    Serial.println("Error writing to
flash");
    return p;
    } else {
    Serial.println("Unknown error");
    return p;
    }
}

}
}
//*****Check if
there a Fingerprint ID to
add*****
void confirmAdding(){

    HTTPClient http; //Declare object
of class HTTPClient
    //Post Data
    postData = "confirm_id=" +
String(id); // Add the Fingerprint ID
to the Post array in order to send it
    // Post method

    http.begin(link); //initiate HTTP
request, put your Website URL or
Your Computer IP
    http.addHeader("Content-Type",
"application/x-www-form-
urlencoded"); //Specify content-
type header

    int httpCode =
http.POST(postData); //Send the
request
    String payload =
http.getString(); //Get the response
payload

    display.clearDisplay();
    display.setTextSize(1.5); //
Normal 1:1 pixel scale
    display.setTextColor(WHITE);
    // Draw white text
    display.setCursor(0,0); //
Start at top-left corner
    display.print(payload);
    display.display();
    delay(1000);
    Serial.println(payload);

    http.end(); //Close connection
}
//*****connect to
the WiFi*****
void connectToWiFi(){

```

```

    WiFi.mode(WIFI_OFF);    //Pre
vents reconnection issue (taking too
long to connect)
    delay(1000);
    WiFi.mode(WIFI_STA);
    Serial.print("Connecting to ");
    Serial.println(ssid);
    WiFi.begin(ssid, password);

    display.clearDisplay();
    display.setTextSize(1);    //
Normal 1:1 pixel scale
    display.setTextColor(WHITE);
    // Draw white text
    display.setCursor(0, 0);    //
Start at top-left corner
    display.print(F("Connecting to
\n"));
    display.setCursor(0, 50);
    display.setTextSize(2);
    display.print(ssid);
    display.drawBitmap( 73, 10,
Wifi_start_bits, Wifi_start_width,
Wifi_start_height, WHITE);
    display.display();

    while (WiFi.status() !=
WL_CONNECTED) {
        delay(500);
        Serial.print(".");
    }
    Serial.println("");
    Serial.println("Connected");

    display.clearDisplay();
    display.setTextSize(2);    //
Normal 1:1 pixel scale
    display.setTextColor(WHITE);
    // Draw white text
    display.setCursor(8, 0);    //
Start at top-left corner
    display.print(F("Connected \n"));
    display.drawBitmap( 33, 15,
Wifi_connected_bits,
Wifi_connected_width,
Wifi_connected_height, WHITE);
    display.display();

    Serial.print("IP address: ");
    Serial.println(WiFi.localIP()); //IP
address assigned to your ESP
}
void relay(){
    digitalWrite(relayPin, HIGH);
    delay(5000);
    digitalWrite(relayPin, LOW);
}

```