MAJOR PROJECT REPORT

FILE TRACKING SYSTEM

Submitted by

Pankaj Kumar - (22CS74)

Harshit Rajput - (21ME08)

Anushka Gupta - (21CS63)

Richa – (21CS48)

Under supervision of

Prof. Vinay Rishiwal

महात्मा ज्योतिबा फुले
रुहेलखण्ड विश्वविद्यालय, बरेली

DEPARTMENT OF COMPUTER SCIENCE INFORMATION TECHNOLOGY

Mahatma Jyotibha Phule Rohilkhand University

Acknowledgement

I would like to express my sincere gratitude to Prof. Vinay Rishiwal for his invaluable guidance and unwavering support throughout the duration of this minor project. His expertise, encouragement, and insightful feedback have played a pivotal role in the successful completion of this endeavor.

We are also immensely thankful to us & dedicated team members for their tireless efforts, collaboration, and shared commitment to the project. Their contributions were instrumental in overcoming challenges and achieving our common goals.

The implementation of this project involved the use of various technologies, including **Visual Studio Code**, HTML, CSS, PHP, SQL, XAMMP and others. Each of these tools played a crucial role in shaping the functionality and aesthetics of our project.

In conclusion, I would like to express my heartfelt thanks to everyone who played a role, no matter how big or small, in bringing this project to fruition.

Pankaj kumar

Harshit Rajput

Anushka Gupta

Richa

Index

Introduction

Overview

Welcome to the innovative File Tracking System developed by the Department of Computer Science and Information Technology (CSIT) at MJPRU. Our project aims to revolutionize the way files are managed within the department, ensuring a smooth and transparent workflow.

Using technologies like Visual Studio Code (VSCode), HTML, CSS, PHP, JavaScript, and SQL, our system provides a user-friendly interface coupled with robust backend functionalities. The main focus is on real-time tracking of files, their locations, permissions, and status updates.

The goal is simple yet impactful: to eliminate the hassles of traditional file management, reduce misplacements, and enhance overall administrative efficiency. This system not only addresses the current needs of the department but also sets the stage for future advancements and scalability.

Join us in embracing technology to simplify file tracking, improve communication, and foster a more efficient administrative environment at MJPRU's CSIT Department.

Background and motivation

In the realm of academic administration, the traditional processes of file management often encounter inefficiencies, leading to delays, misplacements, and a lack of transparency. Recognizing the need for a modernized approach, the Department of Computer Science and Information Technology (CSIT) at MJPRU embarked on a transformative journey to develop a File Tracking System.

The existing challenges in file management prompted us to explore innovative solutions that leverage technology to streamline administrative workflows. In the age of digital advancements, there was a pressing need to move beyond conventional methods and adopt a system that not only addresses the current shortcomings but also sets the foundation for future enhancements.

--

The motivation behind this project stems from the vision and encouragement of our esteemed professor and the collective aspiration of the department to contribute to the improvement of administrative processes within our college.

Our professor's guidance has been a driving force, inspiring us to explore and implement a practical solution to the persistent challenges faced in file tracking. Their encouragement has fueled our determination to create a system that not only meets

the immediate needs of the department but aligns with the broader goal of enhancing overall administrative efficiency.

Furthermore, the motivation extends to the broader impact this File Tracking System can have on the college as a whole. By developing a solution that addresses a common challenge faced by multiple departments, we aim to contribute to the larger mission of creating a more streamlined and tech-enabled academic environment.

In essence, our motivation is rooted in the belief that the File Tracking System we are developing will not only benefit the CSIT Department but will also serve as a valuable asset for the entire college community, aligning with the collective goal of progress and efficiency.

Objective

The primary objective of implementing the File Tracking System at MJPRU's Department of Computer Science and Information Technology (CSIT) is to revolutionize and streamline the file management processes across various departments within the college. The key objectives include:

1. Enhanced Transparency: Introduce a system that provides real-time visibility into the location and status of files as they move through different departments.

2. Efficient Workflow: Facilitate a more efficient and timely forwarding of files between departments, reducing delays and bottlenecks in administrative processes.

3. Digital Accountability: Implement a digital tracking mechanism to minimize the risk of file misplacement and improve accountability in file handling.

4. User-Friendly Interface: Develop an intuitive and user-friendly interface that enables easy navigation and accessibility for all users involved in the file tracking process.

Final Goal:

The ultimate goal of the File Tracking System is to establish a seamless, tech-enabled environment for managing files within the college. The envisioned final state includes:

1. Swift File Forwarding: Achieve a significant reduction in the time taken for files to move from one department to another by streamlining the tracking and approval processes.

2. Minimized Errors: Drastically decrease the occurrence of errors such as misplaced files or outdated information, contributing to a more reliable administrative system.

3. Data-Driven Insights: Utilize the system's data to generate insights into the efficiency of administrative processes, allowing for continuous improvements and informed decision-making

4. Positive Impact on College Operations: Witness an overall improvement in the efficiency and productivity of the college administration, with the File Tracking System serving as a model for other departments.

By successfully implementing this system, we aim to contribute to a more technologically advanced and responsive administrative framework, fostering a culture of innovation and efficiency within MJPRU's CSIT Department.

Methodology

Technology (CSIT) is structured to ensure a systematic and effective approach, aligning with the project's objectives. The methodology can be broken down into the following key phases:

1. Requirement Analysis:

- Collaborate with department stakeholders to identify and understand the specific needs and challenges related to file tracking.
- Gather insights into existing file management processes, pain points, and user expectations.

2. System Design:

- Develop a comprehensive system architecture based on the gathered requirements.
- Design an intuitive user interface to enhance user experience.
- Define the database schema to store file-related information securely.

3. Technology Selection:

- Choose appropriate technologies for different aspects of the system, considering factors such as scalability, security, and compatibility.
- Leverage Visual Studio Code (VSCode) as the primary integrated development environment.
- Utilize HTML, CSS, PHP, JavaScript, and SQL for frontend and backend development.

4. Prototype Development:

- Create a functional prototype to visualize the system's core features and functionalities.
- Incorporate feedback from stakeholders to refine the prototype.
- Ensure seamless integration of technologies for optimal performance.

5. Full-Scale Development:

- Implement the system based on the finalized design and prototype.
- Develop modules for real-time file tracking, status updates, and user permissions.
- Conduct regular testing to identify and rectify any bugs or issues.

6. Deployment:

- Roll out the File Tracking System in a phased manner, starting with a pilot implementation.
- Monitor system performance and user feedback during the initial deployment.
- Gradually extend the system to all relevant departments.

7. Training and Documentation:

- Provide training sessions for end-users to ensure a smooth transition to the new system.
- Create comprehensive documentation outlining system functionalities, troubleshooting procedures, and best practices.

8. Evaluation and Optimization:

- Conduct periodic evaluations to assess the system's effectiveness and user satisfaction.
- Gather feedback for continuous improvement and optimization.
- Implement updates and enhancements based on the evolving needs of the department.

9. Scaling and Integration:

- Explore opportunities for scaling the system to accommodate future growth.
- Integrate the File Tracking System with other existing college systems for a cohesive administrative ecosystem.

Through this structured methodology, we aim to deliver a robust and user-friendly File Tracking System that not only meets the current needs of the department but also adapts to future requirements, fostering a more efficient administrative environment.

Description

User Interface:

The user interface of the File Tracking System has been meticulously designed to provide a seamless and intuitive experience for all users involved in the file tracking process. Key elements of the interface include:

1. Dashboard:

- A centralized dashboard offering a quick overview of ongoing file movements, pending approvals, and status summaries.
- At-a-glance visibility into department-specific and system-wide file tracking metrics.

2. Navigation:

- Intuitive navigation menus for easy access to different functionalities based on user roles.
- Clearly labeled sections for file creation, tracking, and administrative settings.

3. File Details View:

- Comprehensive file details view displaying metadata, history, and associated documents.
- User-friendly layouts for easy interpretation and quick reference.

4. Status Updates:

- Dynamic status indicators to track the real-time progress of files.
- Visual cues for file approval, rejection, or pending actions.

5. Notifications:

- Automated notifications for users regarding file movements, pending approvals, and system updates.
- Configurable notification preferences to cater to individual user needs.

Features:

The File Tracking System is equipped with a robust set of features designed to enhance efficiency, transparency, and accountability in file management processes:

1. Real-time Tracking:

- Live tracking of files as they move through different departments.
- Instant updates on file locations and status changes.

2. Permission Management:

- Role-based access control to ensure that users have appropriate permissions.
- Fine-grained control over who can view, edit, and approve files.

3. File Creation and Metadata:

- Simple and user-friendly file creation process.
- Inclusion of metadata fields for detailed file information.

4. Search and Retrieval:

- Powerful search functionality for quick retrieval of files based on various criteria.
- Advanced filters to narrow down search results.

5. Audit Trail:

- Comprehensive audit trail capturing all file-related activities.
- Historical data for accountability and traceability purposes.

6. Reporting and Analytics:

- Customizable reports for insights into file tracking metrics.
- Analytical tools to identify trends, bottlenecks, and areas for improvement.

7. Mobile Responsiveness:

- Responsive design for access on various devices, including smartphones and tablets.
- Seamless user experience across different screen sizes.

8. Integration with Existing Systems:

- Ability to integrate with other college systems for data synchronization.
- Ensures a cohesive and interconnected administrative ecosystem.

9. User Training and Support:

- Built-in tutorials and help resources for users to familiarize themselves with the system.
- Dedicated support channels for assistance with any queries or issues.

Specifications:

1. Platform and Technologies:

   - Developed using Visual Studio Code (VSCode) as the primary integrated development environment.

   - Utilizes a technology stack including HTML, CSS, PHP, JavaScript, and SQL for frontend and backend development.

2. Database Design:

   - Employs a relational database model to store file-related information securely.

   - Defines tables for files, users, permissions, and audit logs.

3. Scalability:

   - Designed to be scalable to accommodate the growing needs of the department.

   - Implements efficient data structures and algorithms for optimal performance.

4. Security Measures:

   - Implements secure coding practices to prevent common vulnerabilities.

   - Incorporates user authentication and authorization mechanisms for data protection.

5. User Roles and Permissions:

   - Defines user roles such as administrators, department heads, and regular users.

   - Specifies granular permissions to control access to different system functionalities.

6. Integration Capabilities:

   - Allows seamless integration with existing college systems for data synchronization.

   - Adheres to standard APIs and protocols for interoperability.

Analysis:

1. Requirement Analysis:

   - Identified and documented specific needs and challenges related to file tracking within the department.

   - Conducted thorough interviews and surveys with stakeholders to gather insights into user expectations.

2. User Workflow Analysis:

   - Mapped out the entire file tracking workflow, from file creation to approval and archival.

   - Analyzed potential bottlenecks and areas for optimization within the existing workflow.

3. Risk Analysis:

   - Identified potential risks associated with the implementation of the File Tracking System.

   - Formulated risk mitigation strategies to address identified challenges.

4. Usability Analysis:

   - Conducted usability testing with representative users to ensure an intuitive and user-friendly interface.

   - Incorporated feedback from users to refine the design and navigation elements.

5. Performance Analysis:

   - Performed performance testing to assess the system's responsiveness and scalability.

   - Identified and addressed potential performance bottlenecks to ensure optimal user experience.

6. Compliance Analysis:

   - Ensured compliance with relevant data protection regulations and college policies.

- Conducted regular audits to verify adherence to established security standards.

7. Cost-Benefit Analysis:

   - Evaluated the cost-effectiveness of implementing the File Tracking System.

   - Considered both the initial investment and the long-term benefits in terms of efficiency gains and reduced errors.
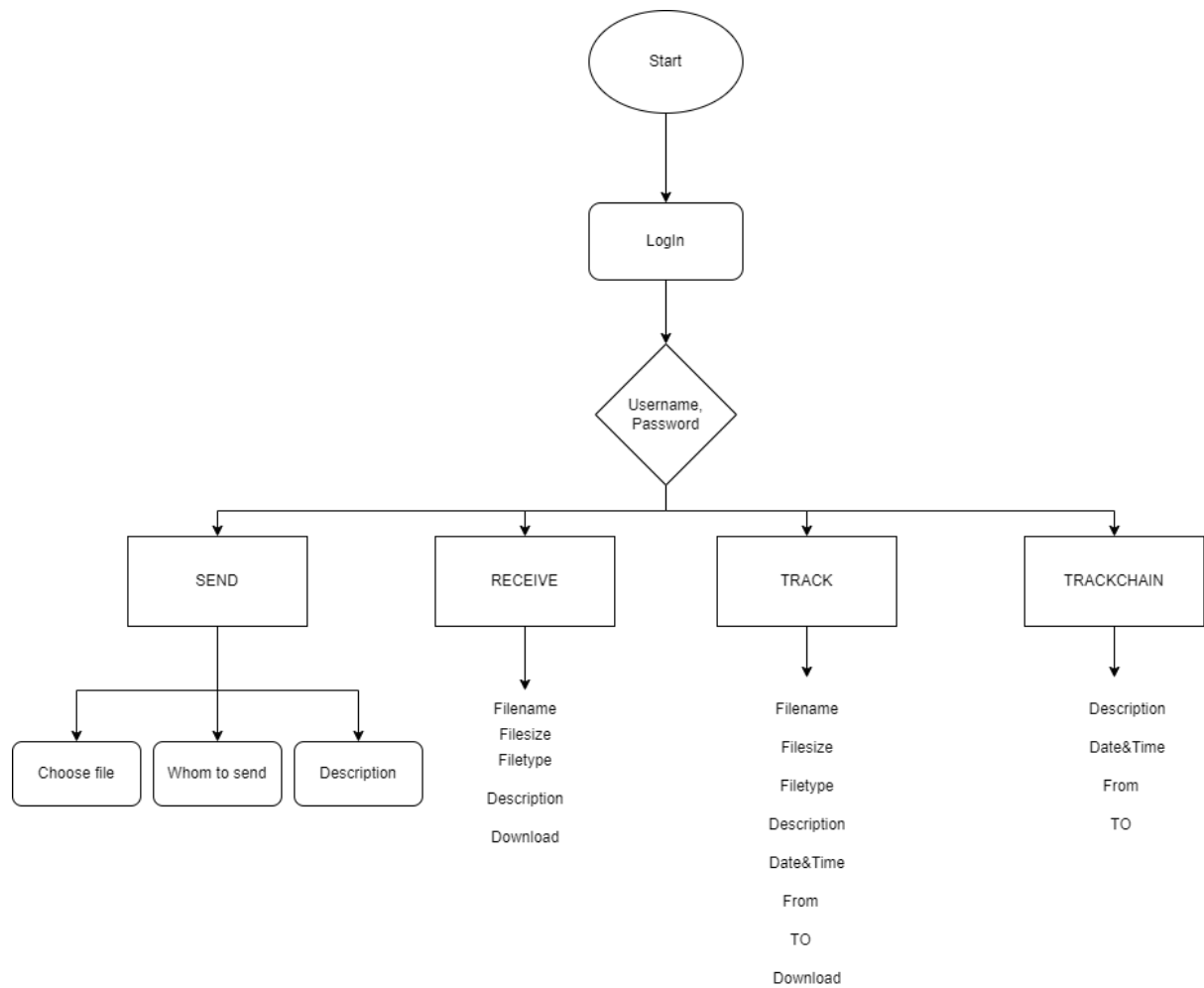
8. Feasibility Analysis:

   - Assessed the technical, operational, and economic feasibility of the project.

   - Ensured alignment with the department's strategic goals and objectives.

9. Feedback Analysis:

   - Continuously gathered feedback from end-users during the development and testing phases.

   - Incorporated user suggestions and addressed reported issues to improve the system.

DESIGN

Flowchart

Start

LogIn

Username, Password

SEND   RECEIVE   TRACK   TRACKCHAIN

Choose file   Whom to send   Description

RECEIVE
Filename
Filesize
Filetype
Description
Download

TRACK
Filename
Filesize
Filetype
Description
Date&Time
From
TO
Download

TRACKCHAIN
Description
Date&Time
From
TO

Implementation

In developing the File Tracking System, we integrate various tools and technologies such as Visual Studio Code (VSCode), HTML, PHP, CSS, SQL, and XAMPP. The major modules of the system include Login, Send/Receive, Tracking, and Upload. Below is an overview of the implementation process for each module:

1. Tool Integration and Environment Setup:

Visual Studio Code (VSCode):

  - Utilized as the primary integrated development environment for efficient coding and collaboration.

  - Facilitates the seamless integration of various technologies and supports version control systems.

HTML, CSS, PHP, SQL:

  - HTML and CSS for frontend design and styling.

  - PHP for server-side scripting and business logic.

  - SQL for database interactions.

XAMPP:

  - Employed as the local development environment to simulate a server environment.

  - Includes Apache as the web server and MySQL as the database server.

2. Login Module:

Implementation:

  - Utilizes HTML for the login form, collecting user credentials.

  - PHP scripts validate and authenticate user credentials against the database.

  - Session management ensures secure and persistent user authentication.

Security Measures:

- Implements secure coding practices to prevent SQL injection and other common vulnerabilities.

- Ensures the confidentiality of user credentials through secure password handling.

3. Send/Receive Module:

Implementation:

- HTML forms for initiating file send/receive requests.

- PHP scripts process the requests, update the database, and trigger notifications.

- Real-time updates on the same page through AJAX for a dynamic user experience.

User Interface:

- Designed using CSS for a clean and intuitive layout.

- Responsive design to ensure usability across various devices.

4. Tracking Module:

Implementation:

- Utilizes SQL queries to retrieve and display real-time tracking information.

- AJAX for dynamic updates without page reloads.

- Graphical representation of file movements using HTML and CSS.

Enhancements:

- Introduces geolocation tracking for physical file movements.

- Implements advanced filters for customized tracking views.

5. Upload Module:

Implementation:

- HTML forms for file uploads with relevant metadata.

- PHP scripts handle file processing, storage, and database updates.

- Ensures file security through proper validation and storage mechanisms.

User Feedback:

- Provides visual feedback on successful uploads.

- Error handling and notifications for unsuccessful attempts.

6. Database Integration:

XAMPP MySQL Database:

- Establishes a connection to the MySQL database through PHP.

- SQL scripts for creating tables to store user data, file information, and tracking history.

- Ensures data integrity and security through proper indexing and constraints.

7. Testing and Debugging:

Unit Testing:

- Conducts unit tests for individual modules to ensure functionality.

- Utilizes VSCode's debugging tools for efficient error identification and resolution.

8. Deployment:

XAMPP Server Deployment:

- Transitions from the local development environment to a production server.

- Configures Apache and MySQL settings for a secure and scalable deployment.

9. Future Enhancements:

Continuous Integration:

- Implements continuous integration tools for automated testing and deployment.

- Ensures the seamless integration of new features and improvements.

Machine Learning Integration:

  - Explores the integration of machine learning algorithms for predictive analytics.

  - Enhances the system's intelligence for better file routing suggestions.

The implementation process is structured to ensure a cohesive and efficient File Tracking System, providing a foundation for future enhancements and adaptability.

Login Page
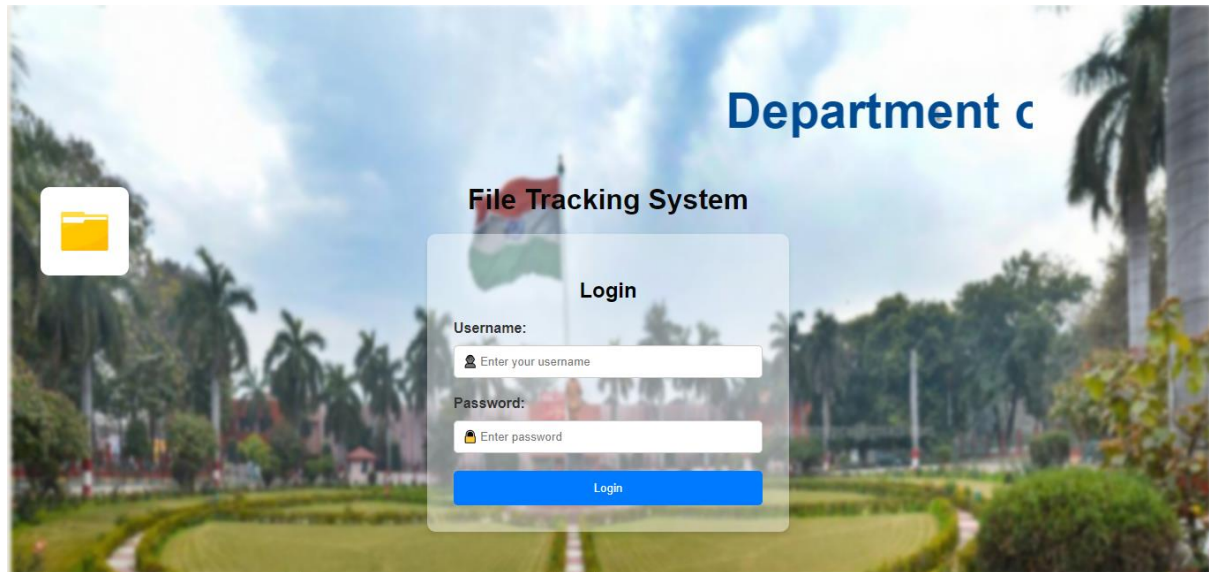

```php
process-login.php
1   <?php
2
3   require '_dbconnect.php';
4   if($_SERVER["REQUEST_METHOD"]=="POST"){
5       session_start();
6           $_SESSION["username"] = $_POST["username"];
7           $_SESSION["password"] = $_POST["password"];
8           $un=$_POST["username"];
9           $pwd=$_POST["password"];
10
11
12      $sql = "SELECT `name` FROM `users` WHERE `name` = '".$_SESSION['username']."' ";
13      $result = mysqli_query($conn, $sql);
14      $num = mysqli_num_rows($result);
15      $sql1 = "SELECT `name` FROM `users` WHERE `password` = '".$_SESSION['password']."' ";
16      $result = mysqli_query($conn, $sql);
17      $num1 = mysqli_num_rows($result);
18      // echo $num;
19      if($num and $num1){
20      //   echo "inside result loop";
21          header('Location:http://localhost/college/options.php');
22      }else{
23          echo"Incorrect username or password";
24      }
25
26  }
27  ?>
28  <!DOCTYPE html>
29  <html lang="en">
30  <head>
31      <meta charset="UTF-8">
32      <meta name="viewport" content="width=device-width, initial-scale=1.0">
33      <style>
34          body {
35              font-family: Arial, sans-serif;
36              background-color: #f4f4f4;
37              margin: 0;
38              display: flex;
39              flex-direction: column;
40              align-items: center;
41              justify-content: center;
42              height: 100vh;
43          }
44
45          .login-container {
46              background-color: #fff;
47              padding: 20px;
48              border-radius: 8px;
49              box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
50              width: 300px;
51          }
52
```

```php
51          }
52
53          form {
54              display: flex;
55              flex-direction: column;
56          }
57
58          label {
59              margin-bottom: 8px;
60          }
61
62          input {
63              padding: 8px;
64              margin-bottom: 16px;
65              border: 1px solid #ccc;
66              border-radius: 4px;
67          }
68
69          button {
70              background-color: #007bff;
71              color: #fff;
72              padding: 10px;
73              border: none;
74              border-radius: 4px;
75              cursor: pointer;
76          }
77
78          button:hover {
79              background-color: #0056b3;
80          }
81      </style>
82      <title>Login Page</title>
83  </head>
84  <body>
85      <h1>Login to the file tracking system</h1>
86      <div class="login-container">
87          <form action="process-login.php" method="POST">
88              <h2>Login</h2>
89              <label for="username">Username:</label>
90              <input type="text" id="username" name="username" required>
91
92              <label for="password">Password:</label>
93              <input type="password" id="password" name="password" required>
94
95              <button type="submit">Login</button>
96          </form>
97      </div>
98  </body>
99  </html>
00
```

Option Page

Connection was successful

Welcome HOD sir to file tracking system

select the options below

[SEND FILE]   [RECEIVE FILE]   [TRACK FILE]   [TRACK FILE CHAIN]
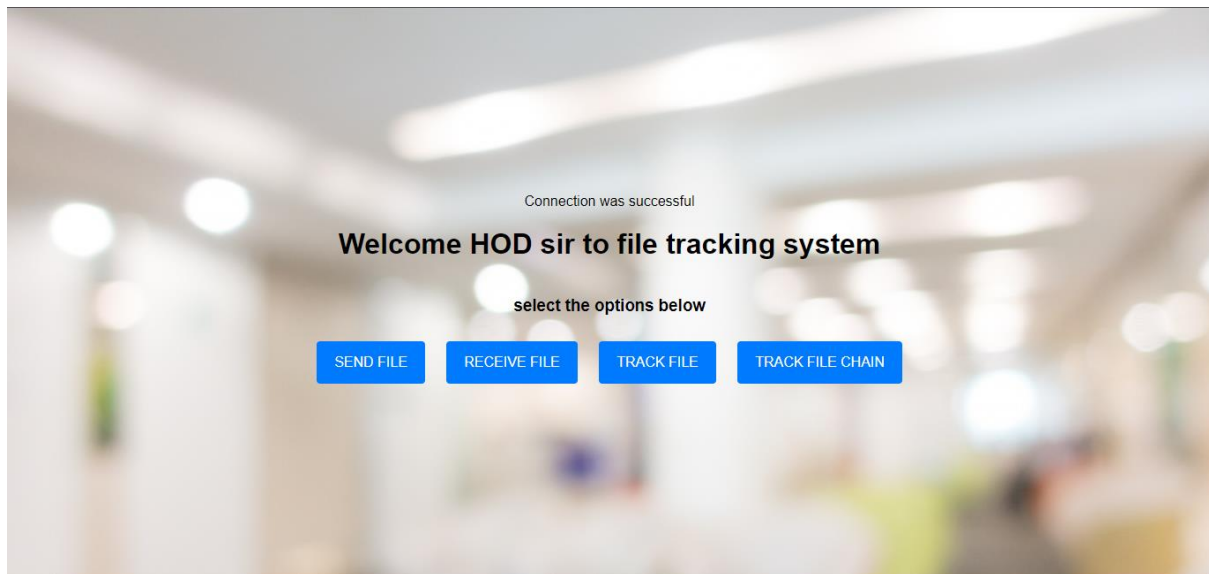

```php
🐘 options.php
1    <?php
2    require '_dbconnect.php';
3    session_start();
4    $un=$_SESSION["username"];
5
6
7    ?>
8
9    <!DOCTYPE html>
10   <html lang="en">
11   <head>
12       <meta charset="UTF-8">
13       <meta name="viewport" content="width=device-width, initial-scale=1.0">
14       <style>
15           body {
16               font-family: Arial, sans-serif;
17               background-color: #f4f4f4;
18               margin: 0;
19               display: flex;
20               flex-direction: column;
21               align-items: center;
22               justify-content: center;
23               height: 100vh;
24           }
25
26           .button-container {
27               text-align: center;
28           }
29
30           button {
31               background-color: #007bff;
32               color: #fff;
33               padding: 15px 20px;
34               margin: 10px;
35               border: none;
36               border-radius: 4px;
37               cursor: pointer;
38               font-size: 16px;
39           }
40
41           button:hover {
42               background-color: #0056b3;
43           }
44       </style>
45       <title>File Management</title>
46   </head>
47   <body>
48       <h1>Welcome <?php echo "$un" ?> to file tracking system</h1>
49       <h3>select the options below</h3>
50       <div class="button-container">
51           <button onclick="location.href = 'http://localhost/college/sendfile.php';" >SEND FILE</button>
52           <button onclick="location.href = 'http://localhost/college/receive.php';" >RECEIVE FILE</button>
53           <button onclick="location.href = 'http://localhost/college/trackfile.php';">TRACK FILE</button>
54       </div>
55   </body>
56   </html>
57
```

Send Page
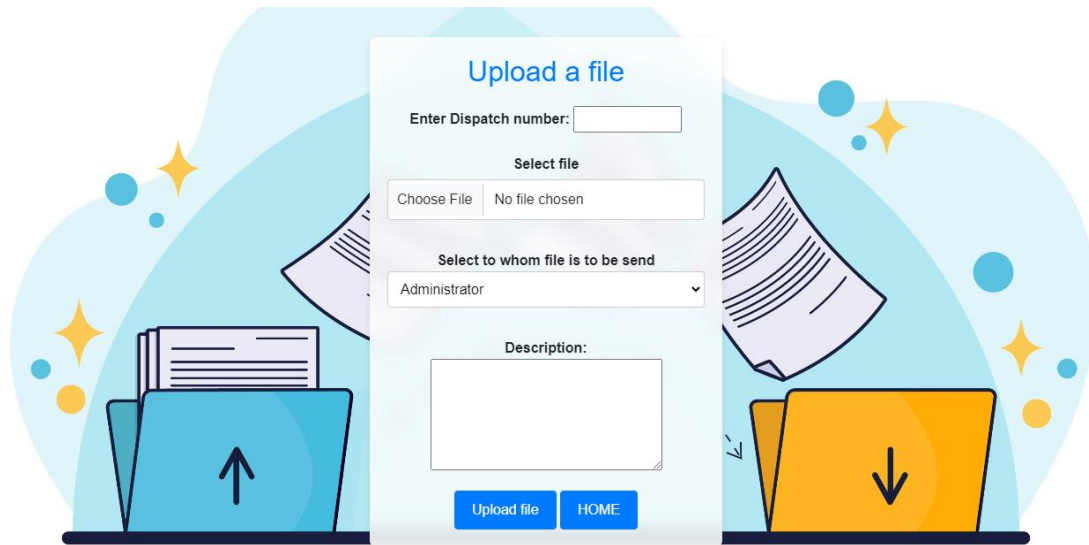

```
sendfile.php
1    <?phpsession_start();
2    $_SESSION["whom"] = $_POST["whom"];?>
3    <!DOCTYPE html>
4    <html>
5    <head>
6        <meta charset="utf-8">
7        <meta name="viewport" content="width=device-width, initial-scale=1">
8
9        <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>
10       <script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.1/dist/umd/popper.min.js"></script>
11       <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.min.js"></script>
12       <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css">
13       <title>File upload and download</title>
14   </head>
15   <body>
16       <div class="container mt-5">
17           <h2>Upload a file</h2>
18           <form action="upload.php" method="POST" enctype="multipart/form-data">
19               <div class="mb-3">
20                   <label for="file" class="form-label">Select file</label>
21                   <input type="file" class="form-control" name="file" id = "file">
22                   <br>
23                   <label for="whom"><b>Select to whom file is to be send </b></label>
24                       <select placeholder="" id="whom" name="whom" required>
25                       <option value = "Administrator">Administrator</option>
26                       <option value = "HOD">HOD</option>
27                       <option value = "Professor">Professor</option>
28                       </select>
29               </div>
30               <button onclick="location.href = 'http://localhost/college/upload.php';" type="submit" class="btn btn-primary">Upload file</button>
31           </form>
32       </div>
33
34   </body>
35   </html>
```

Received Page


```php
<?php
//database connection details

$db_host = "localhost";
$db_user = "root";
$db_pass = "";
$db_name = "filelogin";

$conn = new mysqli($db_host, $db_user, $db_pass, $db_name);


if ($conn->connect_error) {
        die("Connection failed: " . $conn->connect_error);
        }

//Fetch the uploaded files from the database

$sql = "SELECT *FROM files";
$result = $conn->query($sql);

?>


<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Uploaded files</title>
    <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>
    <script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.1/dist/umd/popper.min.js"></script>
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.min.js"></script>
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css">
</head>
<body>

    <div class="container mt-5">
        <h2>Uploaded Files</h2>
        <table class="table table-bordered table-striped">
            <thead>
                <tr>
                    <th>File Name</th>
                    <th>File Size</th>
                    <th>File Type</th>
                    <th>Download</th>
                </tr>
            </thead>
            <tbody>
                <?php
                // Display the uploaded files and download links
                if ($result->num_rows > 0) {
                    while ($row = $result->fetch_assoc()) {
                        $file_path = "uploads/" . $row['filename'];
                        ?>
                        <tr>
                            <td><?php echo $row['filename']; ?></td>
                            <td><?php echo $row['filesize']; ?> bytes</td>
                            <td><?php echo $row['filetype']; ?></td>
                            <td><a href="<?php echo $file_path; ?>" class="btn btn-primary" download>Download</a></td>
                        </tr>
                        <?php
                    }
                } else {
                    ?>
                    <tr>
                        <td colspan="4">No files uploaded yet.</td>
                    </tr>
                    <?php
                }
                ?>
            </tbody>
        </table>
    </div>
</body>
</html>

<?php
$conn->close();
?>
```
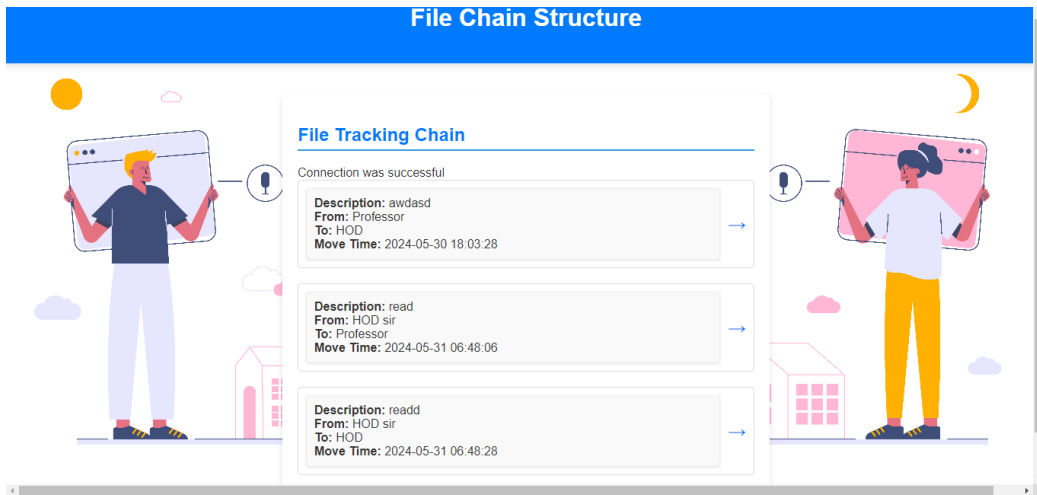
Track Page

Uploaded Files

File Name	from	to	Download	Date and time	Dispatch NO.	Description
BTechMech SYLABUS.pdf	HOD sir	Professor	Download	2024-05-31 06:35:22		
BTechMech SYLABUS.pdf	Professor	Assistant engineer	Download	2024-05-31 06:35:22	59602312	read and send estimation
os lab file.pdf	HOD sir	Professor	Download	2024-05-31 06:48:06	795471	read
6th sem syllabus.pdf	HOD sir	HOD	Download	2024-05-31 06:48:28	112345	readd

HOME   TRACK FILE CHAIN


```php
<?php
$servername = "localhost";
$username = "root";
$password = "";
$database = "filelogin";

// Create a connection
$conn = mysqli_connect($servername, $username, $password, $database);

// Die if connection was not successful
if (!$conn){
    die("Sorry we failed to connect: ". mysqli_connect_error());
}
else{
    echo "Connection was successful<br>";
}
session_start();
$fn = $_SESSION["filename"];
$usr = $_SESSION["username"];
$whom = $_SESSION["whom"];
$sql = "INSERT INTO `trackfile` ( `filename`, `from`, `to`) VALUES ('$fn', '$usr', '$whom')";
        $result = mysqli_query($conn, $sql);
        if($result){
echo"table updated";


    }else{
        echo"error";
    }
    $sql = "SELECT *FROM trackfile";
    $result = $conn->query($sql);
?>



<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Track File</title>
    <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>
    <script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.1/dist/umd/popper.min.js"></script>
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.min.js"></script>
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css">
</head>
<body>

    <div class="container mt-5">
        <h2>Uploaded Files</h2>
        <table class="table table-bordered table-striped">
            <thead>
                <tr>
                    <th>File Name</th>
                    <th>from</th>
                    <th>to</th>
                    <th>update status</th>
                </tr>
            </thead>
            <tbody>
                <?php
                // Display the uploaded files and download links
                if ($result->num_rows > 0) {
                    while ($row = $result->fetch_assoc()) {
                        $file_path = "uploads/" . $row['filename'];
                        ?>
                        <tr>
                            <td><?php echo $row['filename']; ?></td>
                            <td><?php echo $row['from']; ?> </td>
                            <td><?php echo $row['to']; ?></td>
                            <td><a href="<?php echo $file_path; ?>" class="btn btn-primary" download>Download</a></td>
                        </tr>
                        <?php
                    }
                } else {
                    ?>
                    <tr>
                        <td colspan="4">No files uploaded yet.</td>
                    </tr>
                    <?php
                }
                ?>
            </tbody>
        </table>
    </div>
</body>
</html>
```

File Chain Structure

File Tracking Chain

Connection was successful

Description: awdasd
From: Professor
To: HOD
Move Time: 2024-05-30 18:03:28
→

Description: read
From: HOD sir
To: Professor
Move Time: 2024-05-31 06:48:06
→

Description: readd
From: HOD sir
To: HOD
Move Time: 2024-05-31 06:48:28
→

college > 🐷 chain.php

```php
1   <?php
2   session_start();
3   $servername = "localhost";
4   $username = "root";
5   $password = "";
6   $database = "filelogin";
7
8   // Create a connection
9   $conn = mysqli_connect($servername, $username, $password, $database);
10
11  // Die if connection was not successful
12  if (!$conn){
13      die("Sorry we failed to connect: ". mysqli_connect_error());
14  }
15  else{
16      echo "Connection was successful<br>";
17  }
18  $filename = $_SESSION["filename"];
19  $from = $_SESSION["username"];
20  $to = $_SESSION["whom"];
21  $dispatch = $_SESSION["dispatch"];
22  $description = $_SESSION["description"];
23  $movetime= $_SESSION["movetime"];
24  ?>
25
26
27
28  <!DOCTYPE html>
29  <html lang="en">
30  <head>
31      <meta charset="UTF-8">
32      <meta name="viewport" content="width=device-width, initial-scale=1.0">
33      <link rel="stylesheet" href="styles.css">
34      <title>File Chain Structure</title>
35      <style>
36          /* General styles */
37  body {
38      font-family: 'Arial', sans-serif;
39      background: linear-gradient(135deg, #f5f7fa, #c3cfe2);
40      margin: 0;
41      display: flex;
42      flex-direction: column;
43      align-items: center;
44      justify-content: center;
45      min-height: 100vh;
46      color: #333;
47      background-image: url("chpic.jpg");
```

college > 🐷 chain.php

```css
37      body {
52      }
53
54      header {
55          background-color: #007bff;
56          color: white;
57          padding: 20px;
58          text-align: center;
59          width: 100%;
60          box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
61          margin-bottom: 20px;
62      }
63
64      section {
65          background-color: white;
66          border-radius: 8px;
67          box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
68          margin: 20px;
69          padding: 20px;
70          width: 80%;
71          max-width: 600px;
72      }
73
74      h2 {
75          color: #007bff;
76          margin-bottom: 20px;
77      }
78
79      ul {
80          list-style-type: none;
81          padding: 0;
82      }
83
84      li.chain-item {
85          display: flex;
86          align-items: center;
87          margin-bottom: 20px;
88      }
89
90      .chain-details {
91          background-color: #f9f9f9;
92          border: 1px solid #eee;
93          padding: 10px;
94          border-radius: 4px;
95          box-shadow: 0 1px 3px rgba(0, 0, 0, 0.1);
96          flex: 1;
```

college > 🐷 chain.php

```css
97  }
98
99  .chain-arrow {
100     margin-left: 10px;
101     font-size: 24px;
102     color: #007bff;
103 }
104     </style>
105 </head>
106 <body>
107     <header>
108         <h1>File Chain Structure</h1>
109     </header>
110
111     <section id="file-chain">
112         <h2>File Tracking Chain</h2>
113         <ul id="chain-list">
114             <?php
115             include '_dbconnect.php';
116             // $fileNumber = $_GET['fileNumber']; // Assume file number is passed as a
117             $sql = "SELECT *FROM file_movement", "SELECT *FROM trackfile";
118
119
120             $result = mysqli_query($conn, $sql);
121
122             if (mysqli_num_rows($result) > 0) {
123                 while($row = mysqli_fetch_assoc($result)) {
124                     echo "<li class='chain-item'>";
125                     echo "<div class='chain-details'>";
126                     echo "<strong>Description:</strong> " . htmlspecialchars($row['des
127                     echo "<strong>From:</strong> " . htmlspecialchars($row['from']) .
128                     echo "<strong>To:</strong> " . htmlspecialchars($row['to']) . "<br
129                     echo "<strong>Move Time:</strong> " . htmlspecialchars($row['movet
130                     echo "</div>";
131                     echo "<div class='chain-arrow'>→</div>";
132                     echo "</li>";
133                 }
134             } else {
135                 echo "No movements found for this file.";
136             }
137
138             mysqli_close($conn);
139             ?>
140         </ul>
141         <div class="button-container">
142         <button  onclick="location.href = 'http://localhost/college/options.php';" >HO
143         <!-- <button onclick="location.href = 'http://localhost/college/chain.php';">T
```

college > 🐷 chain.php

```php
106     <body>
111     <section id="file-chain">
112         <h2>File Tracking Chain</h2>
113         <ul id="chain-list">
122             if (mysqli_num_rows($result) > 0) {
123                 while($row = mysqli_fetch_assoc($result)) {
124                     echo "<li class='chain-item'>";
125                     echo "<div class='chain-details'>";
126                     echo "<strong>Description:</strong> " . htmlspecialchars($row['des
127                     echo "<strong>From:</strong> " . htmlspecialchars($row['from']) .
128                     echo "<strong>To:</strong> " . htmlspecialchars($row['to']) . "<br
129                     echo "<strong>Move Time:</strong> " . htmlspecialchars($row['movet
130                     echo "</div>";
131                     echo "<div class='chain-arrow'>→</div>";
132                     echo "</li>";
133                 }
134             } else {
135                 echo "No movements found for this file.";
136             }
137
138             mysqli_close($conn);
139             ?>
140         </ul>
141         <div class="button-container">
142         <button  onclick="location.href = 'http://localhost/college/options.php';" >HO
143         <!-- <button onclick="location.href = 'http://localhost/college/chain.php';">T
144
145         </div>
146     </section>
147 </body>
148
149
150 </html>
```

Future Work

As we envision the continual evolution of the File Tracking System, there are several areas of future work that we intend to explore and implement, focusing on enhancing user experience, functionality, and adaptability:

1. UI/UX Enhancement:

- Introduce iterative improvements to the user interface, incorporating user feedback for an even more intuitive and visually appealing design.
- Explore modern UI design trends and technologies to ensure a seamless and engaging user experience.

2. Comprehensive Tracking System:

- Expand the tracking system to include advanced features such as file versioning, detailed audit trails, and real-time notifications.
- Implement geolocation tracking for physical file movements within the departments.

3. Enhanced Permission Management:

- Develop a more granular permission model, allowing administrators to customize user access levels based on specific functionalities.
- Integrate with existing college authentication systems for a unified user management approach.

4. Flexibility and Customization:

- Introduce customizable templates for different types of files, allowing departments to tailor the system to their specific needs.
- Implement configurable workflows to accommodate diverse departmental processes.

5. Mobile Application:

- Develop a mobile application for both Android and iOS platforms to enable on-the-go file tracking and approvals.
- Ensure a responsive and optimized mobile experience for users.

6. Integration with External Systems:

- Explore integration with external systems beyond the college, enabling interoperability with government agencies or other educational institutions.
- Investigate the use of APIs and webhooks for seamless data exchange.

7. Advanced Reporting and Analytics:

- Implement advanced reporting tools to generate in-depth analytics on file tracking metrics.
- Explore data visualization techniques for better insights into departmental workflows.

8. Machine Learning and Predictive Analytics:

- Integrate machine learning algorithms to predict potential delays in file movements based on historical data.
- Implement smart suggestions for file routing based on departmental patterns.

9. User Training and Documentation:

- Develop comprehensive training materials and video tutorials to facilitate a smooth onboarding process for new users.
- Establish a dedicated helpdesk to provide continuous support and assistance.

10. Scalability and Performance Optimization:

- Continuously monitor system performance and optimize database queries for enhanced scalability.
- Implement caching mechanisms and load balancing strategies to support a growing number of users and files.

11. User Feedback Mechanism:

- Establish a systematic mechanism for collecting and analyzing user feedback to drive ongoing improvements.
- Conduct regular surveys and usability testing to understand user needs and preferences.

The future work outlined above reflects our commitment to ensuring that the File Tracking System remains at the forefront of technological advancements and user expectations, providing a reliable and adaptable solution for the MJPRU's CSIT Department.

Synthesis

The development and implementation of the File Tracking System at MJPRU's Department of Computer Science and Information Technology (CSIT) mark a significant step towards modernizing administrative processes and enhancing efficiency within the academic institution. This synthesis encapsulates the journey, achievements, and future aspirations of this transformative project.

Initiation and Vision:

The project originated from the recognition of challenges associated with traditional file management within the department. A vision was articulated to create a dynamic, technology-driven solution that would address these challenges, streamline workflows, and contribute to a more transparent and accountable administrative environment.

Execution and Technological Framework:

The methodology employed a systematic approach, starting from comprehensive requirement analysis to the selection of an appropriate technology stack. The use of Visual Studio Code (VSCode), HTML, CSS, PHP, JavaScript, and SQL facilitated the development of a robust system, ensuring both frontend user-friendliness and backend efficiency.

User-Centric Design:

The user interface was meticulously crafted, focusing on simplicity, clarity, and functionality. User feedback played a crucial role in refining the design and ensuring that the system aligns seamlessly with the needs and expectations of the department's stakeholders. The iterative design process resulted in an interface that promotes ease of use and accessibility.

Key Features and Functionality:

The File Tracking System introduced a range of features aimed at revolutionizing file management. Real-time tracking, permission management, and detailed file views were implemented to enhance transparency and accountability. Notifications, reporting tools, and mobile responsiveness were incorporated to cater to diverse user needs and scenarios.

Analysis and Optimization:

Thorough analysis, including requirement analysis, usability testing, and performance evaluations, informed the system's design and development. Continuous optimization and adherence to security standards ensured that the system not only met immediate needs but also laid the groundwork for future scalability and adaptability.

Future Directions:

The project's journey doesn't conclude with implementation; rather, it serves as a foundation for ongoing improvements. Future work includes UI/UX enhancements, advanced tracking features, and increased flexibility to adapt to evolving departmental requirements. Integration with external systems, machine learning applications, and continuous user feedback mechanisms highlight the commitment to staying at the forefront of technological innovation.

Collaboration and Impact:

Throughout the project, collaboration with stakeholders, including professors, department heads, and end-users, has been pivotal. Their insights, coupled with the dedication of the development team, have shaped the File Tracking System into a transformative tool. The impact extends beyond immediate efficiency gains, contributing to a culture of innovation and adaptability within the academic community.

Conclusion

In conclusion, the successful implementation of the File Tracking System at MJPRU's CSIT Department is a milestone achievement. We've transformed the way files are managed, introducing efficiency and transparency into the administrative workflow.

By integrating technologies like Visual Studio Code, HTML, PHP, CSS, SQL, and leveraging XAMPP, we've created a user-friendly system. The Login, Send/Receive, Tracking, and Upload modules are now seamlessly functioning, simplifying tasks for users.

As we look to the future, the commitment to continuous improvement remains strong. We'll refine the user interface, introduce advanced features, and stay adaptable to the changing needs of the department.

This implementation is a collaborative effort, bringing together the expertise of the development team and the insights of department stakeholders. It's not just a technological upgrade; it's a step towards a more streamlined and responsive administrative environment.

The File Tracking System is not the end but the beginning of a tech-driven evolution, promising a more efficient and secure future for file management at MJPRU's CSIT Department.

Summary:

In summary, the File Tracking System at MJPRU's CSIT Department is now operational, ushering in a new era of efficient and transparent administrative processes. Leveraging technologies such as Visual Studio Code, HTML, PHP, CSS, SQL, and XAMPP, we've successfully implemented modules for Login, Send/Receive, Tracking, and Upload.

The system achieves a balance between user-friendly interfaces and robust functionalities, enhancing the overall user experience. Security measures have been implemented to protect user credentials and sensitive information.

Looking forward, the commitment to improvement remains strong, with plans to refine the user interface, introduce advanced tracking features, and ensure adaptability to future needs. The collaborative effort between the development team and department stakeholders has resulted in a transformative solution, not just in technology but in redefining administrative efficiency.

As the File Tracking System takes its place as a cornerstone for future advancements, it symbolizes a commitment to innovation and responsiveness within the academic environment at MJPRU's CSIT Department.