

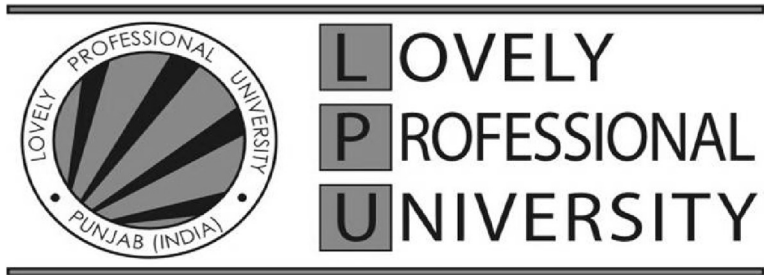
# **JAVA PROJECT REPORT**

## **STUDENT ATTENDANCE SYSTEM**

Name	Registration No.	Roll No
12208053	Tharun konduru	28
12110092	Shaik Jafer Ali	35
12108072	Vamshi Krishna Ch	45

**COURSE CODE: CSE310**

**“School of Computer Science and Engineering”  
Lovely Professional University Phagwara,  
Punjab**



## **DECLARATION**

We hereby declare that the project work entitled (“Student Attendance System”) is an authentic record of our own work carried out as requirements of Java Project for the award of

B.Tech degree in Computer Science and Engineering from Lovely Professional University, Phagwara, under the guidance of (A.Ranjith Kumar), during February to April 2023. All the information furnished in this project report is based on our own intensive work and is genuine.

Date: 19-04-2023

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# INTRODUCTION

The use of technology in education has been rapidly increasing in recent years. One of the areas where technology has had a significant impact is in the management of student attendance. Traditional attendance systems, which rely on manual recording and tracking, are time-consuming and prone to errors. To overcome these challenges, educational institutions are now implementing digital student attendance systems.

A digital student attendance system uses various technological tools, such as biometric devices, RFID tags, or mobile apps, to capture and track attendance. These systems have many advantages over traditional methods, including accuracy, efficiency, and ease of use. They can also provide real-time data on student attendance, which can be used to identify trends and patterns, and to monitor and improve student performance.

In this report, we will discuss the implementation of a digital student attendance system in educational institutions. We will explore the benefits and challenges of these systems, and

examine the technology used (like in UMS). Save the data using a fullfledged database system.

## **PROPOSED TECHNIQUE**

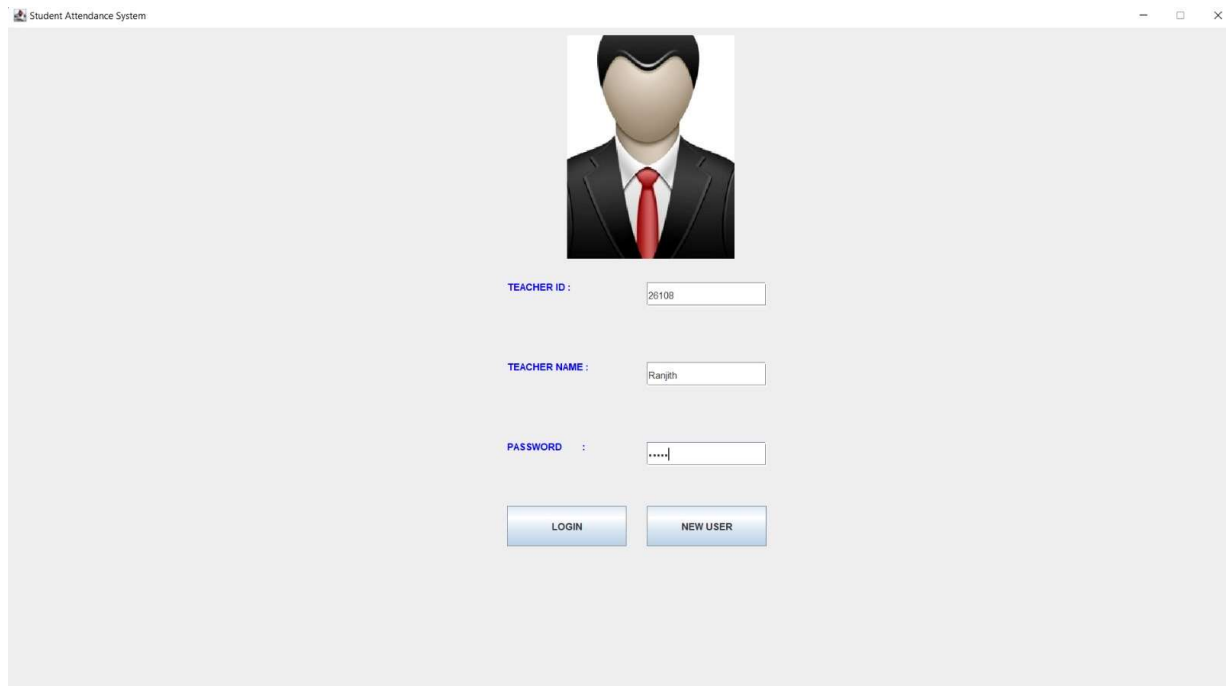
Usage of java jframes and database management system to create a system that is used to mark and store the attendance of the students by the faculty. Jframes are used to implement the frontend and a database system is established to store the data and to fetch the data and compare the login credentials entered by the user and the user will be given the access to the system, only if the entered credentials are matched from the database.

## **MODULES**

### **LOGIN:**

The login module is a core module of the application, providing users with secure access to their accounts. When a user logs in using teacher ID, Name and password, the system looks for the same data from the database provided. If the credentials doesnot match the system gives a prompt to register to the user. If the

credentials are matched, system continues to the second method.



The screenshot shows a web application window titled "Student Attendance System". At the top center is a placeholder image of a person in a suit. Below the image are three input fields: "TEACHER ID:" with the value "28108", "TEACHER NAME:" with the value "Ranjith", and "PASSWORD:" with masked characters "....". At the bottom are two buttons: "LOGIN" and "NEW USER".

## Register a New user:

Register module takes id, password as input from the user and after registering, the details will be stored in the database system and data will be fetched whenever its needed.

The screenshot shows a web browser window titled "Student Attendance System". At the top center is the Lovely Professional University logo with the tagline "Transforming Education Transforming India". Below the logo, there are three input fields for registration: "TEACHER ID:", "NEW PASSWORD:", and "CONFIRM PASSWORD:". Each field is followed by a text input box. At the bottom center, there is a blue "REGISTER" button.

## Dashboard:

The second module provides some options to the user. We provide options like My profile, Mark attendance, Feedback, LPU policy and login page.

These options are linked to other modules likewise and the path depends on the input given by the user.

The login page takes us back to the login module acts as an undo of the process.



## Mark Attendance:

Here course name is Java and the user has to enter the details of the student to mark his attendance and the user has to select the section.

A screenshot of the "ATTENDANCE MARKING SYSTEM" form. The form is titled "ATTENDANCE MARKING SYSTEM" and contains the following fields and controls:

- Course Name: java
- Section: A dropdown menu showing "K21ST".
- Enter Student Details section with:
  - Student Name: A text input field.
  - Student Id: A text input field.
  - Radio buttons for "Present" and "Absent".
  - "Submit" and "Reset" buttons.
- A "HOME" button at the bottom right.



## LPU 's Policy:

We have included UMC and indiscipline case, because they are indirectly related to the student's attendance. To file a UMC or an indiscipline case, the faculty has to enter the students name, University ID, his branch and the reason for the case.

The image displays two screenshots of a web application titled "Student Attendance System".

The top screenshot shows the "UMC CASE :" form. It contains four input fields labeled "STUDENT NAME:", "STUDENT ID:", "BRANCH NAME:", and "REASON:". Below these fields are two buttons: "SUBMIT" and "LPU POLICY".

The bottom screenshot shows the "INDESCPLINE CASE :" form. It also contains four input fields labeled "STUDENT NAME:", "STUDENT ID:", "BRANCH NAME:", and "REASON:". Below these fields are two buttons: "SUBMIT" and "LPU POLICY".

```
mysql> use java
Database changed
mysql> show tables;
+-----+
| Tables_in_java |
+-----+
| attendance      |
| teacher         |
+-----+
2 rows in set (0.01 sec)

mysql> select * from teacher;
+-----+-----+
| teacher_id | password |
+-----+-----+
| 12110092   | jafer@2  |
| 12108072   | vamshi   |
| 26108      | 26108    |
| 12         | 12       |
| 123        | 123      |
| 456        | 456      |
|           |          |
| 122        | 442      |
| 12         | 12       |
| 12         | 12       |
| 12112133   | 12112133 |
+-----+-----+
12 rows in set (0.00 sec)

mysql> select * from attendance;
+-----+-----+-----+-----+
| name      | id      | section | status |
+-----+-----+-----+-----+
| jafer ali | 121332  | K21st   | Present |
|           |         | K21st   | Not Marked |
| 12121121  | 52t2g2  | K21st   | Present |
| jafer     | 1213435 | K21st   | Present |
| gvhuji    | kjjk    | K21st   | Present |
| jafer ali | 1233    | K21sp   | Present |
| nhhkx     | bsdhk   | K21ST   | Not Marked |
| nhhkx     | bsdhk   | K21ST   | Present |
+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

# CONCLUSION

In conclusion, a digital student attendance management system offers several benefits for educational institutions. It provides accurate and efficient attendance tracking, reduces the workload of teachers and administrative staff, and helps to ensure that students are attending classes regularly. Additionally, it allows for easy monitoring of student attendance patterns and can be used to identify and address attendance issues in a timely manner.

Overall, the implementation of a digital student attendance management system can lead to better student performance, improved communication between teachers and parents, and increased accountability for student attendance. It is an effective tool that can help educational institutions streamline their attendance tracking processes and improve the educational experience for students.

The usage of digital and electric attendance is rapidly increasing in this modern era. The evolution of embedded systems have started to help in the implementation of the attendance systems, including the hardware to mark the attendance. Different methods are also proposed and are in testing for the future.

## **FUTURE ENHANCEMENTS**

1. Real time updates: Generating a report of the student attendance and his total or average attendance of the respective course.
  - I. Customised reports: Specific reports for the students, faculty and the parents of the students.
2. Biometrics: Usage of hardware to implement the usage of biometrics to mark the attendance of the student.
  - I. Fingerprint
  - II. Face Recognition
  - III. Iris or Palm
  - IV. DNA – based recognition

## References:

- I. Java tutorial
- II. Geeks for Geeks
- III. Java point
- IV. Code Java