**Student Attendance Management System**

**Team Members:** Sajan Dhungel, Sanjeev Bishta, Dipendra K C

**Our Project:** Student Attendance System

Any educational institution requires student class attendance tracking yet this process often consumes significant time. The Student Attendance Management System exists to solve this problem. The system functions as a desktop application which uses Python to create a user-friendly and secure platform for both students and teachers.

Teachers can use this system to register students by their names and IDs (Sajan Dhungel 12044719 and Dipendra K C 12044840) and assign subjects (Mathematics or English) while marking attendance through simple interface interactions. Students can access the system to view their attendance records which display their status as 'Present' or 'Absent' for specific dates similar to our sample data (e.g., 2025-05-22,12044772, Present,19:19) and check their class schedules.

The system maintains all data through a MySQL database which provides secure storage for student information and attendance records. The system includes Tkinter-based graphical user interfaces (GUIs) for regular operations and a command-line interface (CLI) for administrative tasks. Our goal is to eliminate both paper-based documentation and complex spreadsheet systems through a modern digital solution.

**What It Can Do**

We offer a safe and secure login for everyone, with teachers and students each having their own account. What is simple here is that when you login, the system automatically knows who you are, and it takes you to the Instructor Login or Student Login screen and show you only the sections that are applicable to you, making your life easy.

**For Teachers**

Our system will be great for you because it will help keep all of your students organized you will be able to add a student, create an account for that student, and put them in a class as well as assign them to a course easily. Their attendance note is totally without effort, assign their presence or absence with a single click and apply the correction by double click and view the past attendance with a few simple filters: date, class and teachers receive a handy class view where schedules and enrollment numbers can quickly be checked.

**For Students**

Students have self-service, all time access to monitor their own attendance data. They can also see their full weekly schedule of classes with all of their enrolled subjects, classes times, teachers and where they need to go to take classes so they are always organised and know where to be for school.

**Behind the Scenes: How Our System Works**

Users can utilize a (main.py) command-line tool in advanced mode or for more specialized administrative tasks to directly manipulate data such as student registrations, attendance marking and survey of list-of students, student results tables Unusual exits from the command line, this robust system uses Python as a base and integrates MySQL. Its MySQL connector makes seamless connecting with a MySQL Server possible. Python's datetime module efficiently handles time and date while the language's file handling can be employed to keep easy notes in students.txt and attendance.txt at your fingertips.

The friendly user interface is made from Tkinter, Python's standard GUI library, that creates an environment with tabs for all the different functions. It offers clear data presentations using the Treeview widget display, which is a familiar setup easy for beginners to grap. All important information including student names, passwords, and attendance marks is kept secure in a MySQL database. This database is clearly partitioned into special tables for teachers, students, student subjects (a link between students and their courses), attendance records. Clear data integrity is built in by means of well-designed rules like foreign keys that make sure all connections are correct and correct.

To get the system up and running, simply download or clone the project from GitHub and ensure Python is installed. Then, install the mysql-connector-python library with pip. After that, use the provided SQL.sql file to get your database and structure its tables on your MySQL Server. Finally, configure the db\_config section in Instructor.py, Student.py, and main.py with your MySQL username and password, and launch the program by running python Instructor.py, python Student.py or python main.py in your terminal.