# Use case model

A close up of text on a white background

Description automatically generated

# Use case model description

**Use Case Name :** Enter Student Attendance

**Brief Description:**

This use case allows the tutor to update the attendance which he/she has taken manually in class. To enter the attendance the tutor has to specify the module code, the module group, the date and the duration of the lessons after which the system will then retrieve the list of students and the tutor will select the names of those absent in class to create attendance.

**Primary Actor:** Tutor

**Secondary Actor:** None.

**Precondition:**

* The tutor has to login to the system successfully.
* Tutor has taken attendance in class.
* System administrator has set up the module and student and details.

**Postconditions:** The absence records are created and saved.

**Main Flow:**

1. The tutor selects enter attendance option.
2. The system prompts for attendance details, such as: module code, module group, date (dd/mmm/yyyy), activity type(L/P/T), and duration(in hours).
3. The tutor submits the attendance details
4. The system validates the attendance details
5. The system verifies attendance details, retrieves and displays the student list of the module group.
6. The tutor selects and submits the student(s) who are absent.
7. The system creates absence records.
8. The use case ends

**Alternative Flow :**

4a. Missing and/or incorrect data: The system display error message, use case resumes at main flow step 3

5a. Invalid module information: The system display error message, prompts for valid module information, use case resumes at main flow step 3

# Appendix: Student Attendance System Case Study

A-start Global is a well-known education and training centre. Currently, the student attendance taking is done manually by the tutor. As the number of student increases, the staff found this becoming unmanageable, especially to compute the attendance rates of each student. Therefore, an online student attendance system is needed.

***Stakeholders(i.e. who will be interested in using the system)***

The users of the system include the tutor, the students & the system administrator.

***Brief Description of the proposed system***

The system shall allow all authorized users to login and to give them the appropriate access rights. All users are able to view the details of attendance records for lectures, tutorials & practicals in each module. The system must be user-friendly.

The tutor has to take attendance manually in class. After which he/she has to enter the attendance taken for the modules that they are teaching. To enter the attendance, the tutor has to specify the module, the module group, the date and the duration of the lessons. The system will then retrieve the list of students and the tutor will select the names of those absent in class to create attendance. If wrong information is selected by tutor, the records will not be retrieved and tutor has to recheck their selection. It is also possible that system is unable to retrieve the attendance list or save the absent entries entered by the tutors due to connection error. Hence tutors will have to try again at a later time.

If a student is not able to attend classes for some reason, the system allows him/her to enter the reason. If a student is sick, he/she must submit the sick leave (MC) to the admin clerk. After checking, the clerk will indicate this against the student’s submitted reason.

At any point in time during the semester, the tutor will specify the start and end dates to generate the summary attendance report for all the students in the modules in which he/she is teaching. If the start and end date entered is invalid, no computation will be performed. \*\*Otherwise the system will compute the percentage of the attendance for individual student. For those who do not meet the minimum attendance rate of 85%, the system shall email a warning letter to Students. The formula to calculate the attendance rate is (no. of hours attended) / (total no. of module hours) x 100%

On the other hand, the system administrator shall be allowed to set up the attendance policy such as minimum attendance rate to sit for exam and acceptable reasons for absence. The administrator will need to trigger the download of detailed information of students and module records from the external Information Management System (IMS) before releasing the system to the users. The system shall provide basic security for login authentications and shall allow 50 concurrent users to access the system without degrading the system performance