Use case name : attendance	ID : att01	Priority : high

Actor: professors & students
(type : external)

Description : the professor must enter the system which gives the students the duration of one minute to record their attendance by entering a distinctive code that is generated by the system instantly then check the facial recognition and after this a notification is sent to both students and student affair clerk that the student is attendant and every week the system send a fullreport to the students

Trigger : the professor enter the system then open the duration (1 minute) for thestudents to record their attendance
(type : external)

Precondition :
   1- **The system checks that the network is good**
   2- **The professor must authenticate his ID**
   3- **The student must authenticate his ID**
   4- **The student must be enrolled in the course he is trying to record his attendance on**

Normal course :	Information for steps :
1. **The professor wants to start the course**	
1.1- the professor authenticate his ID	1.1- list of all emails and passwords of the professors
1.2- the system records the time of the course and his period	
1.3- the professor initiate the registration period (1 minute)	
1.4- the system record the exact login and log out of the professor	
1.5- the system store data of the duration the professor took and his attendance in the server and sends reports every week to the administration	
2. **The student wants to record his attendance**	2.1- the emails and passwords of all students
2.1- the student authenticate his ID	2.2- list of all courses
2.2- the student enter the course	
2.3- the professors open the registration	
2.4- the system generate distinctive code for each user	
2.5- the student enter the generated code	
2.6- the system asks the student for facial recognition	
2.7- the system record the attendance of the student	2.8- process confirmation
2.8- the system sends notification for the clerk of students affair and for student	
2.9- the system stores all the data on the server	3.2- the emails and passwords of all students
3. **the student wants to know his attendance ratio**	3.4- the system store and compute ratio of absence and attendance of every student in enrolled course
3.1- the student enter the system	
3.2- the student authenticate his ID	
3.3- the student enter the tab of records	
3.4- the system shows the absence and attendance ratio of each course and can send report for the student every period that the student wants to	
3.5- the system sends alert for every absence	
3.6- the system sends alert with warning letter if absence ratio of any course reached 3	

Alternative course :-	
1- **there is failure in the network**	
1.a- the system diagnosis the network	
2.a- the system try to fix the network and refresh it	
2.b- if the system cannot restore network	
3.b- the system sends report to the IT to check the network	3.b- report by all possible reasons for network failure
4.b- the system sends a list by all the students enrolled in the course and with checklist to record on the old way and then sends the data of the list and store it on the server	4.b- list of all courses and students enrolled on it

Post condition :
   1- the system stores all the data on the server
   2- the system compute the absence and attendance ratio for students and professors
   3- the system compute analysis of average time every professor take of his course
   4- the system send to the administration report every week by the ratios and analysis

Exception :
   1- the professor is absent
   1.1- the system record that the professor is absent
   1.2- the system cancel this course
   1.3- the system exclude to the absence ratio of that course
   2- The professor is notifying that he will not attend the course
   2.1- the system postpone the attendance issue of that course
   2.2- the system sends notification of the new course time
   2.3- the system compute the absence issue of the new course
   3- student is attending the course with different group
   3.1- the professor add the name of the student manually
   3.2- the system allow the student to record his attendance
   3.3- the system asks the student of the course he wants to compensate
   3.4- the system send notification of that situation to the student affairs
   3.a- if the professor does not accept that a student attend the course in different time
   3.b- the system terminate the use case

Summery :

Inputs	Source	Outputs	Destination
Professors ID	Professors	notification of the attendance	Students
Students ID	Students	Report of the absence of the students	Students
Distinctive code	The system	Reports of the absence ratio of students and professors	Administration
Image of the facial recognition	Students	Alerts of absence	Students
List of all students and enrolled courses	Students affair clerk	Report and notification of every group attendance of the course	Student affairs