# Semester Project

# PROJECT COSMOS

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**Description:**

Cosmos is a Learning Management System. The Administration, faculty, and students of the university use the system on a regular basis. Student enrollment, attendance, grading, course registration, faculty feedback etc. Here are a few use cases of the system.

There will be 3 portals(**Administrator, Faculty member and Student)**

Administrator can:

* Manage (add/edit/delete) faculty members.
* Manage (add/edit/delete) students
* Manage (add/edit/delete) student batches
* Manage (add/edit/delete) semesters
* Manage (add/edit/delete) courses
* Manage (add/edit/delete) sections of the courses
* Assign (and later edit) faculty members to the sections of the courses
* Assign (and later edit) students to the sections of the courses
* View registration, attendance, marks distribution, transcript and evaluation report of a course
* View his/her profile

Faculty Member can:

* Manage attendance of the assigned sections of the courses
* Manage marks distribution of the assigned sections of the courses
* Manage evaluations of quizzes, assignments, exams, and projects
* View evaluation, and attendance reports of the courses.
* Assign grades to the students by providing the ranges of the marks. System will show the evaluation report to the faculty member and then ask for the range of marks for each grade.
* View his/her profile

Student can:

* + - View his/her profile
* Apply for the registration in a course. An administrator would assign the section to the student.
* View his/her attendance in all registered courses in the current semester
* View his/her marks in all the registered courses in the current semester
* View his/her transcript

**Mailbox**

Cosmos provides a Mailbox for communication among its users.

* Any user can send a message to any other user.
* A few announcements are made publicly, hence those are sent to every user.
* A user can open his/her Mailbox to see the messages in the order of the arrival.
* The Mailbox shows the subjects of all the messages, and if user choses to open a message, it shows the body of the message.

**File Handling**

Cosmos stores all information related to semesters, courses, faculty members, students, registration, attendance, marks of the students, grades of the students, and messages on the hard disk. The information is stored in multiple folders and files. Cosmos reads all files to restore its previous state.

**Workflow**

An administrator is created initially with a default username “admin” and password “1234”. The admin user creates a semester, student batch information, and related courses in the system. It then adds students and faculty members in the system. Students are assigned respective batches upon creation. Faculty members are added in the system and assigned to the sections of the courses in a given semester. A student can only register for less than 18 credit hours in one semester. Once he/she is registered in a course, the admin will assign a section to him/her. The faculty member assigned to the section can then mark attendance, update marks, and perform the required updates to the registered students.