

Following are the instructions of features:-

On login, it's identified whether the user is admin or instructor or student

Context:

This is a website for Academic Information Management for a college named IIT Ropar.

IIT Ropar has a lot of departments

Every student belongs to exactly one department

Every instructor belongs to exactly one department

admin can create a new department (CSE, Mechanical, Metallurgy etc.)

A department can be destroyed by admin as well

People are not deleted on deleting a department but they inherit a department that can't be deleted by admin as well. (This step is so that even after deleting a department, people can see their grades, courses etc. held in past).

To become a student, admin creates a new account on student's behalf by entering all info of the student and setting password. Admin shares the password with the student and students can change their passwords.

Same goes for instructors.

An admin can create / delete a department

An admin can create (or delete) a student account

An admin can create (or delete) an instructor account

The workflow is as follows :-

Admin starts a semester

Admin registers students and instructors for that semester.

Student pays the fee and uploads reference number and photo proof on portal

This fee receipt is checked and accepted by the admin

When admin accepts the receipt, the student is registered for the semester

Only those people can see or do the activities in a semester who have been registered for the semester.

Rest can see the record of their previous semesters as well. Also show a notification bar for each user which shows any activity that has taken place which is related to them.

There are a lot of events that happen during a semester, for that make a calendar which can be changed by admin, other users can also change the calendar but changes will be visible to those users only. Admin can add an event / holiday.

Registered faculties can request courses from admin.

Each course has a course id of 6 chars : first 3 chars are from the department (same as department of instructor). Last 3 chars are to be set by the instructor

Each course has a course name/title

Each course has a LTPSC system : Lecture-Tutorial-Practical-Self_Study-Credits

$$\text{Credits} = \text{Lecture} + (\text{Practical} / 2)$$

Each component is in unit hours per week

Each course has a checkbox to select if the course is a necessary course for the branch

If the course is necessary, as soon as a student is registered / already registered from that department, he/she gets enrolled automatically for that course.

Students of other branches can also see the course once it's approved by admin and request their enrolment in it.

If the course is not necessary, students can request enrolment by their will, none is forced to do that course.

Each course has an instructor (the instructor who created that)

Each course has a slot in time table. Each slot is in text form. Admin can create / delete slots.

Slot field can't be filled while course creation. It has to be decided by admin later.

Once a course is approved by admin, students can request their enrolment for courses which is approved by instructor. Student can enrol a maximum of 24 credits in their semester. At any time sum of credits of a student (courses enrolled + requested for enrolment) can't exceed 24.

This limit can be reset by admin to more than 24

Course Enrolment is opened by admin

Students request enrolment

Course Enrolment is closed, pending requests still remain (not approved by instructor till now)

Once enrolment is closed, student can't request add/drop of courses

While enrolment, student has two options - credit / audit

Grades for credited courses are

A i.e., 10

A- i.e., 9

B i.e., 8

B- i.e., 7

C i.e., 6

C- i.e., 5

D i.e., 4

E i.e., 2 (this is for those eligible for supplementary examination)

F i.e., 0

CGPA of a student is the weighted average of grades over all courses where weight is the credits of each course. CGPA can be from 0 to 10

Grades for audited courses are

AP (Audit Pass)

AF (Audit Fail)

Grades of Audit are not counted in calculation of CGPA

There is a time window after enrolment closing which until closed by admin allows students to audit / withdraw a course. I've already told audit system. A student can withdraw a course but this will show up in his record.

The record only shows the courses for which student has enrolled at least once in life and didn't drop the course within the enrolment window. A W grade will be recorded on the record for withdrawn courses.

After this students and instructors work their ass off to learn and make new things and then is the time of grade submission.

Admin opens the window for grade submission.

Instructors submit grades in that window.

Students have the read-only access of grades

Students can post their queries to instructor (visible to admin as well) if they feel so

Admin closes the window for grade submission. No instructor has access to change grades now.

After closing of this window, results are reflected on the student record.

Semester is closed.

Once a semester is closed, all activities are stopped, only the record is maintained.

Admin can change grades of students but they have to be approved by instructor.

Following is the schema :-

passwords(user_id, password, mail)

admin(admin_id, name, mail)

instructor(instructor_id, name, dept_name, mail)

student(student_id, name, dept_name, mail, entry_year)

department(dept_id, dept_name)

course(course_id, title, instructor, dept_name, L, T, P, S, C, necessity)

takes(student_id, course_id, semester, year, grade)

teaches(instructor_id, course_id, semester, year)

registrations(semester_id, user_id)

semester(semester_id, start_date, active)

Following is the brief description of UI :-

Every side should have a notification bar telling activities related to oneself

ADMIN SIDE

Admin can do all those things already told in the document other than that following are the main things that should be included in UI separately

Login info (admin or instructor or student)

Add/delete department separately

Add/delete student

Add/delete instructor

Create new admin

Table of students in semester

Search options to filter students by name, department, id etc.

Fees status and registration requests for ongoing semester

Table of courses and instructors

Same search options

Each admin should be able to access student record (grades in all semesters) as a single table separated by semesters with

SGPA - Weighted average of grades in a semester

CGPA - Weighted average of grades of all courses till now

Ongoing courses are not taken for CGPA evaluation

Change Time Table (changes visible to all)

Add Events / Announcements

Profile Photo

INSTRUCTOR SIDE

Instructor can register himself/herself for a semester (student can do that as well)

Instructor can request a course creation within the creation window (approval by admin)

Instructor can accept / reject request by a student for enrolment in his course(s)

Instructor has access to list of all students in the course

Other than that instructor may access any student by his id and see his record (SGPA and CGPA)

Instructor has access to submit grades and change them within the grade submission window

Profile Photo

STUDENT SIDE

Academic Events

Academic Calendar

semester registration request and Fees details Uploading facility on site

Courses Offered for Enrolment for that semester (don't show for completed semesters)

Student Record

Profile Photo