

Software Engineering

- There are 11 java files 3 csv files and 1 SQL file.
- Junit Testing is done and Jacoco file is generated (Html files).
- Test coverage details are present in Jacoco.zip in that jacoco folder there is a index.html file from which you check all the test cases and test report.
- UML class diagram and sequence diagram are attached with this project zip file.

Coverage Details

- Line % = 77.8%
- Method % = 80%
- Class % = 100%

Run App.java file to run the main file.

About Project

Academics started the semester

- Add all courses to the course_catalog that are newly created (course_catalog filled up with csv file)
- Add all the students that are joined this year with semester=0 (students and users table filled up with csv file)
- Add the instructor in the user and instructor list (instructors and users table filled up with csv file)
- Make the course_curriculum for the batch came (course_curriculum table filled up with csv file)
- Prerequisites of the courses is assigned by the academics. (Prerequisite table filled up with csv file)

Semester started

- When semester is started only then student and instructor login and make updates.
- Instructor can see the course_catalog from which they can see all the courses and they can offer any course from them and that course will be added to the course_offerings.
- Students can enrol them to any of the courses that are offered to them based on the CGPA constraints.
- Grades table will be updated as any student enroll in any course as grade=-1.
- If student drop the course that course from the grades table where the grade in that course is -1 will be removed.
- No student can take the credits more than the credits_limit for him/her.
- Student can take only those courses in which they are eligible (CGPA is greater than constraints and prerequisites are done)

Academics ended the semester

- Grades to be submitted by the instructors for their subjects. ((grade for each course filled up with csv file)
- After all instructors submitted the Grades then Grades table will be full filled
- Then CGPA Column of the students table will be Updated
- There is a graduation check for the students that they are eligible to graduate or not.
- Minimum credits of core courses and elective courses should be fulfilled.
- Then there is a Grade sheet will be generated for each and every student. (Can be exported in a csv file)

Semester Ends

Tables

course_catalog		
course_id *	course_name	credit_structure

prerequisites	
course_id *	prerequisite_course_id *

course_curriculum				
Batch *	Semester *	Department *	course_id	course_type

users						
Email *	password	name	address	phone	role	tokens

instructors			
instructor_id *	department	email	joining_date

students					
email *	entry_number	batch	department	curr_sem	cgpa

course_offerings			
course_id *	instructor_id *	cgpa_constraints	min_credits

grades			
Email *	course_id *	Semester *	grade

admin	
email	Sem_start