Design Document CS301

Project 1

Team:

Het Fadia - 2019CSB1084

Shikhar Soni - 2019CSB1119

The project required us to build certain functionalities of an academic portal. Individual components of the project are as follows with their brief description.

Tables:

The tables used in the project are:

- ➔ course_catalog(**courseid varchar(7)**, L real, T real, P real, S real, C real);
- ➔ pre_requisite(courseid varchar(7), pre_req varchar(7));
- ➔ time_table(**courseid varchar(7),slot integer**);
- ➔ course_batches(courseid varchar(7),secid integer,sem integer,year integer,batch varchar(10));
- ➔ time_table_slot(courseid varchar(7), slot integer);
- ➔ course_offerings(**courseid varchar(7)**, teacherid integer, **secid integer**,sem integer, year integer, cg real);
- ➔ student_info(studentid varchar(12) primary key, _name varchar(50), dept_name varchar(20));
- ➔ ba_info(batchadvisorid varchar(8), teacherid integer, primary key(batchadvisorid));
- ➔ instructor_info(teacherid integer, _name varchar(50) not null, dept_name varchar(20) not null, courseid varchar(7), secid integer, primary key(courseid, secid));
- ➔ Corresponding to each course_offering table there will be course grade table and course enrollment table
    - ◆ NEW.courseid || NEW.secid(studentid varchar(12));
    - ◆ NEW.courseid || NEW.secid || '_g'(**studentid varchar(12)**, grade integer);
- ➔ For each student there are 3 tables namely transcript table, enrollment table and history table shown below
    - ◆ studentid_t(courseid varchar(7) primary key, credits real , sem integer , year integer , grade integer);
    - ◆ studentid_e(courseid varchar(7), sem integer, year integer, secid integer, primary key(courseid, sem, year)
    - ◆ studentid_h(courseid varchar(7) primary key, sem integer, secid integer, year integer, status varchar(50));
- ➔ Corresponding to every instructor there is history table
    - ◆ instructor || '_h' (courseid varchar(7), sem integer, year integer, status varchar(50), secid integer, entry_no varchar(10) primary key(courseid,secid,entry_no);
- ➔ Corresponding to every batch advisor there is history table

- ◆ batch_advisor || '_h'(courseid varchar(7),sem integer,year integer,status varchar(50),secid integer,entry_no varchar(10)primary key(courseid,secid,entry_no));
  - → Corresponding to the dean there is request/history table
    - ◆ 'dean' || '_h' (courseid varchar(7), sem integer, year integer, status varchar(50), secid integer, entry_no varchar(10) primary key(courseid,secid,entry_no));

Triggers:

Permissions/Privileges:
The permissions granted to individual stakeholders are listed below.

Students:
select on student_t i.e., student transcript table.
select on student_e i.e., student enrollment table.
select on student_h i.e., student ticket table, contains status of various tickets raised by the students.

Instructors:
select on course_e i.e., course enrollment table for each course
select, insert, update on course_g i.e., course grade tables, exist for each course
select on instructor_h i.e., all the tickets and their status for an instructor

Batch Advisors:
select on batch_advisor_h i.e., all the tickets and their status for an instructor

Dean: