```
CREATE USER dean_acads WITH ENCRYPTED PASSWORD 'p_dean';
CREATE TABLE course catalogue(
      course id
                  VARCHAR(6) NOT NULL PRIMARY KEY,
      L
                        INTEGER NOT NULL,
      Τ
                        INTEGER NOT NULL,
      Р
                        INTEGER NOT NULL,
      S
                        INTEGER NOT NULL,
                        INTEGER NOT NULL,
      С
      preregs
                        VARCHAR[]
);
GRANT ALL ON course catalogue TO dean acads;
CREATE PROCEDURE insert in catalogue(course id
                                                 VARCHAR(6),
      L
                  INTEGER,
      Т
                  INTEGER,
      Р
                  INTEGER,
      S
                  INTEGER,
      С
                  INTEGER,
                        VARCHAR[])
      preregs
LANGUAGE plpgsql
AS $$
BEGIN
INSERT INTO course_catalogue(course_id, L, T, P, S, C, prereqs) VALUES (course_id, L, T, P,
S, C, preregs);
END
$$;
CREATE OR REPLACE PROCEDURE insert ticket(cour id
                                                       VARCHAR(6),
                  INTEGER.
      sem
      yea
                  INTEGER
LANGUAGE plpgsql
AS $$
DECLARE
      stu id VARCHAR(6);
BEGIN
      SELECT current user INTO stu id;
      IF EXISTS (SELECT * FROM course offering co WHERE co.course id = cour id and
co.semester = sem and co.year = yea)
      THEN
```

```
EXECUTE FORMAT('INSERT INTO tickets table(student id, course id, semester, year)
VALUES (%I, %I, %s, %s)', stu_id, cour_id, sem, year);
       ELSE
       RAISE NOTICE '% course not offered in % sem % year',cour id, sem, yea;
END;$$
CALL student entry('ram',2019);
CALL student_entry('sita',2019);
CALL student entry('raj',2018);
CALL student_entry('rani',2018);
CALL student_entry('s1',2019);
CALL student entry('s2',2019);
CALL student_entry('s11',2018);
CALL student entry('s12',2018);
CALL faculty_entry('f19');
CALL faculty_entry('f18');
CALL faculty entry('f1');
CALL faculty_entry('f2');
CALL faculty entry('f3');
CALL upload time slot(ARRAY[110, 210, 310]);
CALL upload time slot(ARRAY[110, 211, 311]);
CALL upload_time_slot(ARRAY[111, 211, 311]);
CALL upload time slot(ARRAY[112, 212, 312]);
CALL insert in catalogue ('cs201', 3,2,0,0,3, NULL);
CALL insert_in_catalogue('cs202', 3,2,0,0,3, NULL);
CALL insert in catalogue('cs203', 3,2,0,0,3, NULL);
CALL insert_in_catalogue('cs301', 3,2,0,0,4, ARRAY['cs201']);
CALL insert in catalogue('cs302', 3,2,0,0,4, ARRAY['cs202']);
CALL insert_in_catalogue('cs303', 3,2,0,0,4, ARRAY['cs203']);
CALL insert in catalogue ('ge103', 3,2,0,0,4, NULL);
CALL insert in catalogue('hs475', 3,2,0,0,4, NULL);
CALL insert_in_catalogue('ge111', 3,2,0,0,4, NULL);
```

```
GRANT ALL ON course catalogue TO dean acads:
GRANT SELECT ON course_offering TO dean_acads;
GRANT SELECT, UPDATE ON tickets table TO dean acads;
GRANT SELECT, UPDATE ON dean tickets table TO dean acads;
GRANT SELECT ON student table TO dean acads;
GRANT ALL ON time table TO dean acads;
GRANT UPDATE on tickets table TO dean acads;
GRANT ALL ON faculty advisor TO dean acads;
GRANT SELECT ON faculty table TO dean acads;
CALL insert_course_offering('cs301', 1, 2021, ARRAY[110, 210, 310], NULL, 7.5);
CALL insert_course_offering('cs302', 1, 2021, ARRAY[111, 211, 311], NULL, NULL);
CALL insert course offering('cs303', 1, 2021, ARRAY[112, 212, 312], NULL, NULL);
CALL insert course offering('cs201', 1, 2020, ARRAY[110, 210, 310], NULL, NULL);
CALL insert course offering('cs202', 1, 2020, ARRAY[111, 211, 311], NULL, NULL);
CALL insert_course_offering('cs203', 1, 2020, ARRAY[112, 212, 312], NULL, NULL);
CALL insert course offering('ge103', 2, 2020, ARRAY[110, 210, 310], NULL, NULL);
CALL insert_course_offering('hs475', 2, 2020, ARRAY[111, 211, 311], NULL, NULL);
CALL insert course offering('ge111', 2, 2020, ARRAY[112, 212, 312], NULL, NULL);
S1
CALL student_registration('ge103', 2, 2020);
CALL student registration('ge111', 2, 2020);
CALL student registration('cs201', 1, 2020);
CALL student registration('cs202', 1, 2020);
CALL student registration('cs301', 1, 2021);
S2
CALL student registration('ge103', 2, 2020);
CALL student_registration('hs475', 2, 2020);
CALL student registration('cs201', 1, 2020);
CALL student registration('cs203', 1, 2020);
CALL student registration('cs303', 1, 2021);
```

```
CALL student_registration('ge103', 2, 2020);
CALL student_registration('hs475', 2, 2020);
CALL student_registration('cs201', 1, 2020);
CALL student_registration('cs202', 1, 2020);
CALL student_registration('cs301', 1, 2021);

S12
CALL student_registration('ge111', 2, 2020);
CALL student_registration('hs475', 2, 2020);
CALL student_registration('cs201', 1, 2020);
CALL student_registration('cs202', 1, 2020);
CALL student_registration('cs202', 1, 2020);
CALL student_registration('cs302', 1, 2021);

import_csv('ge111', 2, 2020, 'C:\Users\Public\folder\myfile');
CALL import_csv('hs475', 2, 2020, 'C:\Users\Public\folder\myfile.csv');
CALL import_csv('cs201', 1, 2020, 'C:\Users\Public\folder\myfile.csv');
CALL import_csv('ge103', 2, 2020, 'C:\Users\Public\folder\myfile.csv');
```