Govt. Engineering College Wayanad

Department of Computer Science and Engineering

Application Software Development Lab Questions - Week 3

EXP 1- SETTING SQL CONSTRAINTS

Consider the database for a college.
Write the query for the following.
(i) Create a database college
(ii)Use college as the current database
(iii) Create the tables:

Student (sid, sname, sex, dob,dno)
Department (dno, dname)
Faculty (F_id, fname, designation, salary,dno)
Course (cid, cname, credits,dno)
Register (sid,cid,sem)
Teaching (f_id,cid,sem)
Hostel(hid,hname,seats)

(iv) Display all the tables in college database
(v) Include the necessary constraints NOT NULL, DEFAULT, CHECK, and PRIMARY KEY, UNIQUE.

a. Set the primary key for sid in Student table, dno in Department table, F_id in Faculty table, cid in Course table, hid in Hostel table.
b.Set the sid column and cid column of the Register table as a foreign key references the sid column of the Student table cid column of the Course table
c.Set the fid column and cid column of the Teaching table as a foreign key references the fid column of the Faculty table cid column of the Course table
d.Set the dno column of the Faculty table, Course table, Student as a foreign key references the dno column of Department table
f.Set UNIQUE constraints to dob, fname
g.Set NOT NULL constraints to sname, dname, fname, cname,hname

(vi) Insert values to each table containing 5 rows
(vii)Describe the structure of all tables
(viii) Modify the student table to add a new field ‘grade’
(ix) Display name of all students in cse dept.
(x) Display name of all boys in the college.
(ix)Delete all Student who belonging to cse department.

EXP 2 - SETTING SQL CONSTRAINTS

Consider the database for a banking enterprise. Write the queries for the below questions
Create the following tables :

Table	Attributes
customer	cid,cname,loc,gender,dob
Bank	bcode,bloc,bstate
Deposit	Dacno,dtype,ddate,damt
Loan	Lacno,ltype,ldate,lamt
Accounts_in	Bcode,cid
depositor	cid,dacno
borrower	cid,lacno

1. Create a database for bank
2. Use bank as the current database
3. Include the necessary constraints.
    a. Set primary key for cid in customer table, bcode in Bank table, Dacno in Deposit table, Lacno in Loan table
    b. Set Bcode and cid as foreign key for the table Accounts_in
    c. Set cid and dacno as foreign key for the table depositor
    d. Set cid and lacno as foreign key for the table borrower
    e. Set NOT NULL constraint for cname in customer table, bloc in Bank, dtype, damt for Deposit table, and ltype, lamt in Loan table

4. Display all the tables in the bank database
5.Describe the structure of all tables
6. Delete tables

EXP 3 - SETTING SQL CONSTRAINTS

Consider the following relational schema.
An employee can work in more than one department; the pct time field of the Works relation shows the percentage of time that a given employee works in a given department.

1. Create a database for Job
2. Use Job as the current database
3. Create the tables for the database,
   Emp(eid: integer, ename: string, age: integer, salary: real)
   Manager(mname: string, managerid: integer)
   Works(eid: integer, did: integer, pct time: integer)
   Dept(did: integer, budget: real, managerid: integer)
4. Include necessary constraints.
   a. Set primary key for eid in Emp, did in Dept and managerid in Manager table
   b. Set eid and did in Works table as foreign key for the eid in Emp table did in Dept table
   c. Set in managerid in Dept table as foreign key for the managerid in Manager table
   d. Set NOT NULL constraint for ename,age,salary in Emp table, mname in Manager, and pct time in Works table
   e. Set CHECK constraint for age, with age >= 20 in Emp table
5. Employees must have a minimum salary of Rs 1000.
6. Display the eid and ename of all the employees from Emp table whose salary is greater than 20000
7. Delete all employees whose salaries are equal to Rs.15000
8. Modify the Emp table to add doj (date of joining) and set UNIQUE constraint to doj
9. Describe the structure of all tables
10. Display name of all employee in increasing order of their salary.
11. Delete the tables