Tables for Timetable Scheduling Project

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CREATE TABLE department(
code VARCHAR(10) PRIMARY KEY,
name VARCHAR(50) UNIQUE
);
INSERT INTO department VALUES('BTESD', 'Biotechnology & Environment Sciences');
INSERT INTO department VALUES('CHED','Chemical Engineering');
INSERT INTO department VALUES('CED', 'Civil Engineering');
INSERT INTO department VALUES('CSED', 'Computer Science & Engineering');
INSERT INTO department VALUES('EIED', 'Electrical & Instrumentation Engineering');
INSERT INTO department VALUES('ECED', 'Electronics & Communication Engineering');
INSERT INTO department VALUES('MED', 'Mechanical Engineering Department');

CREATE TABLE teacher(
code CHAR(5) PRIMARY KEY,
name VARCHAR(20),
deptcode VARCHAR(10) REFERENCES department(code)
);
INSERT INTO teacher VALUES('AKU', 'Ajay Kumar', 'CSED');
INSERT INTO teacher VALUES('AV' ,'Anil Vashisht', 'CSED');

CREATE TABLE course(
code CHAR(6) PRIMARY KEY,
name VARCHAR(50)
);
INSERT INTO course VALUES('CS003', 'Object Oriented Programming');
INSERT INTO course VALUES('CS013', 'Theory of Computation');
INSERT INTO course VALUES('CS008', 'Computer Networks');
INSERT INTO course VALUES('CS009', 'Data Base Management Systems');
INSERT INTO course VALUES('CS011', 'Software Engineering');
INSERT INTO course VALUES('EC007', 'Microprocessors');

CREATE TABLE coursespecific(
srno CHAR(7) PRIMARY KEY,
code CHAR(6) REFERENCES course(code),
type CHAR(1) NOT NULL,
slotperweek NUMBER(1),
timeperslot NUMBER(3,2)
);
INSERT INTO coursespecific VALUES('CS003L', 'CS003', 'L', 3, 1);
INSERT INTO coursespecific VALUES('CS003P', 'CS003', 'P', 1, 2);
INSERT INTO coursespecific VALUES('CS009L', 'CS009', 'L', 3, 1);

CREATE TABLE degree(
code VARCHAR(10) PRIMARY KEY,
name VARCHAR(30) UNIQUE
);
INSERT INTO degree VALUES('BE','BE');
INSERT INTO degree VALUES('ME','Masters in Engineering');

CREATE TABLE batch(
srno CHAR(6) PRIMARY KEY,
degree VARCHAR(10) REFERENCES degree(code),
year NUMBER(1),
deptcode VARCHAR(10) REFERENCES department(code)
);
INSERT INTO batch VALUES('BECOE', 'BE', '3', 'CSED');
```

```
CREATE TABLE section(
srno CHAR(7) PRIMARY KEY,
code NUMBER(1),
batchsrno CHAR(6) REFERENCES batch(srno),
strength NUMBER(3)
);
INSERT INTO section VALUES('BECOE1', 1, 'BECOE', 19);
INSERT INTO section VALUES('BECOE2', 2, 'BECOE', 22);
INSERT INTO section VALUES('BECOE3', 3, 'BECOE', 20);

CREATE TABLE room(
code CHAR(4),
day CHAR(3) CHECK room IN('Mon', 'Tue', 'Wed', 'Thu', 'Fri'),
period NUMBER(2) CHECK period BETWEEN 1 AND 10,//1,10 inclusive
capacity NUMBER(3),
projector NUMBER(1),
PRIMARY KEY(code, day, period)
);
INSERT INTO room VALUES('F102', 'Mon', 1, 158, 1);
INSERT INTO room VALUES('F102', 'Mon', 2, 158, 1);
INSERT INTO room VALUES('F102', 'Mon', 3, 158, 1);

CREATE TABLE tc(
tcode CHAR(5) REFERENCES teacher(code),
ccode CHAR(7) REFERENCES coursespecific(srno),
projector NUMBER(1),
PRIMARY KEY (tcode, ccode)
);
INSERT INTO tc VALUES('AV', 'CS009L', 1);

CREATE TABLE cb(
ccode CHAR(6) REFERENCES course(code),
batchsrno CHAR(6) REFERENCES batch(srno)
);
INSERT INTO cb VALUES('CS009', 'BECOE');

CREATE TABLE tc_s(
srno NUMBER(5) PRIMARY KEY,   //artificial key
tcode CHAR(3) REFERENCES teacher(code),
ccode CHAR(7) REFERENCES coursespecific(srno),
sectionsrno CHAR(7) REFERENCES section(srno),
FOREIGN KEY(tcode,ccode) REFERENCES tc(tcode, ccode),
);
INSERT INTO tc_s(1,'AV', 'CS009L', 'BECOE1');
INSERT INTO tc_s(2,'AV', 'CS009L', 'BECOE2');
INSERT INTO tc_s(3,'AV', 'CS009L', 'BECOE3');
INSERT INTO tc_s(4,'AV', 'CS009T', 'BEECE1');
INSERT INTO tc_s(3,'AV', 'CS009P', 'BEECE1');

CREATE TABLE roomalloc(
tc_s_srno NUMBER(5) PRIMARY KEY REFERENCES tc_s(srno),
rcode CHAR(4),//if room=lab,and allocate next hour also. 5-6pm cant alone be given.
day CHAR(3),
period NUMBER(2),
FOREIGN KEY(rcode,day,period) REFERENCES room(code, day, period)
);
INSERT INTO roomalloc(1, 'F102', 'Mon', 1);
INSERT INTO roomalloc(2, 'F102', 'Mon', 1);
INSERT INTO roomalloc(3, 'F102', 'Mon', 1);
```