

College Information System

ER DIAGRAM

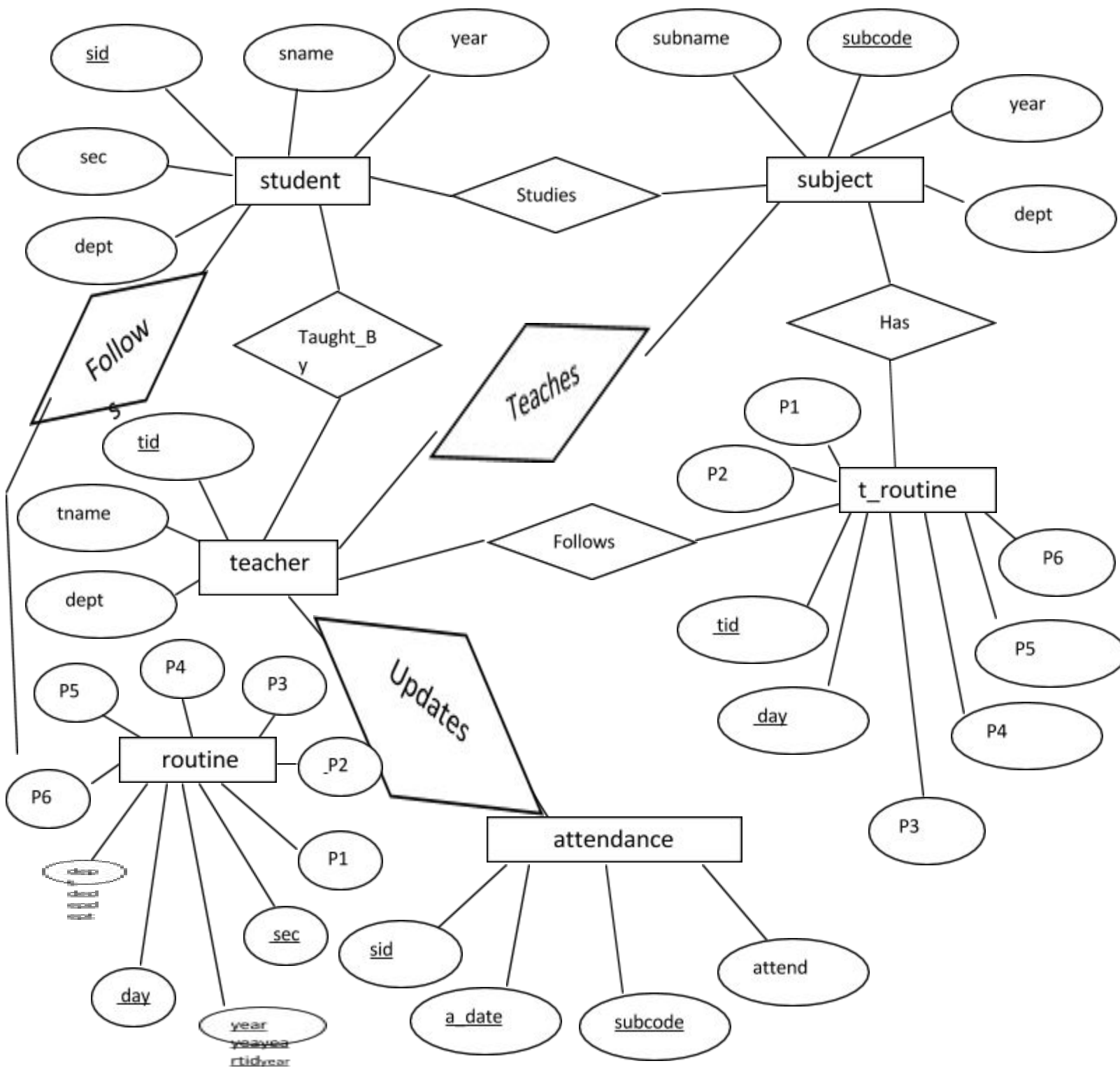


Table Schema

student

| Name | Null? | Type |
|-------|----------|--------------|
| ----- | | |
| SID | NOT NULL | VARCHAR2(20) |
| SNAME | | VARCHAR2(20) |
| DEPT | | VARCHAR2(20) |
| YEAR | | VARCHAR2(20) |
| SEC | | VARCHAR2(20) |

teacher

| Name | Null? | Type |
|-------|----------|--------------|
| ----- | | |
| TID | NOT NULL | VARCHAR2(20) |
| TNAME | | VARCHAR2(20) |
| DEPT | | VARCHAR2(20) |

routine

| Name | Null? | Type |
|-------|----------|--------------|
| ----- | | |
| DEPT | NOT NULL | VARCHAR2(20) |
| DAY | NOT NULL | VARCHAR2(20) |
| YEAR | NOT NULL | VARCHAR2(20) |
| SEC | NOT NULL | VARCHAR2(20) |

| | |
|----|--------------|
| P1 | VARCHAR2(50) |
| P2 | VARCHAR2(50) |
| P3 | VARCHAR2(50) |
| P4 | VARCHAR2(50) |
| P5 | VARCHAR2(50) |
| P6 | VARCHAR2(50) |

subject

| Name | Null? Type |
|---------|-----------------------|
| ----- | |
| SUBCODE | NOT NULL VARCHAR2(20) |
| DEPT | VARCHAR2(20) |
| YEAR | VARCHAR2(20) |
| SUBNAME | VARCHAR2(20) |

attendance

| Name | Null? Type |
|---------|-----------------------|
| ----- | |
| A_DATE | NOT NULL VARCHAR2(20) |
| SUBCODE | NOT NULL VARCHAR2(20) |
| S_ID | NOT NULL VARCHAR2(20) |
| ATTEND | VARCHAR2(20) |

t_routine

| Name | Null? Type |
|-------|------------|
| ----- | |

| | |
|-----|-----------------------|
| TID | NOT NULL VARCHAR2(20) |
| DAY | NOT NULL VARCHAR2(20) |
| P1 | VARCHAR2(20) |
| P2 | VARCHAR2(20) |
| P3 | VARCHAR2(20) |
| P4 | VARCHAR2(20) |
| P5 | VARCHAR2(20) |
| P6 | VARCHAR2(20) |

Table Scripts With Constraints

student

```
create table student(
  sid varchar2(20) primary key,
  sname varchar2(20),
  dept varchar2(20),
  year varchar2(20),
  sec varchar2(20));
```

subject

```
create table subject(
  subcode varchar2(20) primary key,
  dept varchar2(20),
  year varchar2(20),
```

```
subname varchar2(20));
```

teacher

```
create table teacher(  
    tid varchar2(20) primary key,  
    tname varchar2(20),  
    dept varchar2(20));
```

routine

```
create table routine(  
    dept varchar2(20) NOT NULL,  
    day varchar2(20) NOT NULL,  
    year varchar2(20) NOT NULL,  
    sec varchar2(20) NOT NULL,  
    p1 varchar2(50),  
    p2 varchar2(50),  
    p3 varchar2(50),  
    p4 varchar2(50),  
    p5 varchar2(50),  
    p6 varchar2(50),  
    primary key(dept,day,year,sec));
```

attendance

```
create table attendance(  
    a_date varchar2(20) NOT NULL,  
    subcode varchar2(20),
```

```
s_id varchar2(20),  
attend varchar2(20),  
foreign key(s_id) references student(sid),  
foreign key(subcode) references subject(subcode),  
primary key(a_date,subcode,s_id));
```

t_routine

```
create table t_routine(  
tid varchar2(20) NOT NULL,  
day varchar2(20) NOT NULL,  
p1 varchar2(20),  
p2 varchar2(20),  
p3 varchar2(20),  
p4 varchar2(20),  
p5 varchar2(20),  
p6 varchar2(20),  
foreign key(tid) references teacher(tid),  
primary key(tid,day));
```

Stored Procedures

Retrieve routine given dept , year and section

```
create or replace procedure routine_s(x in varchar2,y in varchar2,z in varchar2)
```

as

cursor routine_cur1 is

select day,p1,p2,p3,p4,p5,p6 from routine where dept=x and year=y and sec=z;

day_s varchar2(50);

p1_s varchar2(50);

p2_s varchar2(50);

p3_s varchar2(50);

p4_s varchar2(50);

p5_s varchar2(50);

p6_s varchar2(50);

begin

open routine_cur1;

dbms_output.put_line('routine for '||x||' dept '||y||' year '||z||' section is');

dbms_output.put_line('day 9.20am-10.20am 10.20a.-11.20am 11.20am-12.20am
12.20am-1.00pm 1.00pm-2.00pm 2.00pm-3.00pm 3.00pm-4.00pm');

dbms_output.put_line(' ');

loop

fetch routine_cur1 into day_s,p1_s,p2_s,p3_s,p4_s,p5_s,p6_s;

exit when routine_cur1%notfound;

dbms_output.put_line(day_s||' '||p1_s||' '||p2_s||' '||p3_s||' lunch '||p4_s||'
,
||p5_s||' '||p6_s);


```
end loop;

close routine_cur1;

end;

/
```

Retrieve teacher routine given teacher name

create or replace procedure routine_t(x in varchar2)

as

```
cursor routine_cur1 is
select day,p1,p2,p3,p4,p5,p6 from t_routine where tid in(select tid from teacher where tname=x);

day_s varchar2(50);
p1_s varchar2(50);
p2_s varchar2(50);
p3_s varchar2(50);
p4_s varchar2(50);
p5_s varchar2(50);
p6_s varchar2(50);

begin

open routine_cur1;

dbms_output.put_line('weekly routine for teacher ' || x);

dbms_output.put_line('day 9.20am-10.20am 10.20a.-11.20am 11.20am-12.20am
12.20am-1.00pm 1.00pm-2.00pm 2.00pm-3.00pm 3.00pm-4.00pm');

dbms_output.put_line(' ');
```

```

loop

fetch routine_cur1 into day_s,p1_s,p2_s,p3_s,p4_s,p5_s,p6_s;

exit when routine_cur1%notfound;

dbms_output.put_line(day_s||' '||p1_s||'      '||p2_s||'      '||p3_s||'      lunch      '||p4_s||'
,

||p5_s||'      '||p6_s);

end loop;

close routine_cur1;

end;

/

```

Retrieve attendance of all students given dept, year, sec and subjectcode

```

create or replace procedure attend_s(w in varchar2,x in varchar2,y in varchar2,z in varchar2)
as

```

```

cursor routine_cur1 is

```

```

select s_id,count(attend) "attendance" from attendance a inner join student s on a.s_id=s.sid where
s_id in(select sid from student where dept=w and year=x and sec=y) and subcode=z and attend='p'
group by a.s_id;

```

```

sid_s varchar2(50);

```

```

attend_s varchar2(50);

```

```

begin

```

```

open routine_cur1;

```

```
dbms_output.put_line('-----ATTENDANCE----- ');
dbms_output.put_line('sid      attendance');
dbms_output.put_line(' ');
loop
  fetch routine_cur1 into sid_s,attend_s;
  exit when routine_cur1%notfound;
  dbms_output.put_line(sid_s||'      '||attend_s);
end loop;
close routine_cur1;
end;
/
```