

Department of Computer Science and Engineering Islamic University of Technology (IUT)

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Lab Report 1

CSE 4508 : RDBMS

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Section:2B Semester:5

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Title: Recap on last DBMS(CSE4307) course

SQL COMMANDS:

Give all primary key and foreign key constraints accordingly. SchoolName and ClassName should be unique and it should be a required field.

Use Check Constraint so that Grade and TotalGrade fields are within 2.0 to 4.0.

Use Check Constraint so that email contains "@gmail.com" in the end.

Use Default Constraint so that Address is "IUT, BoardBazar, Gazipur, Bangladesh" by default.

Use Auto increment for StudentId which should start from 200041101.

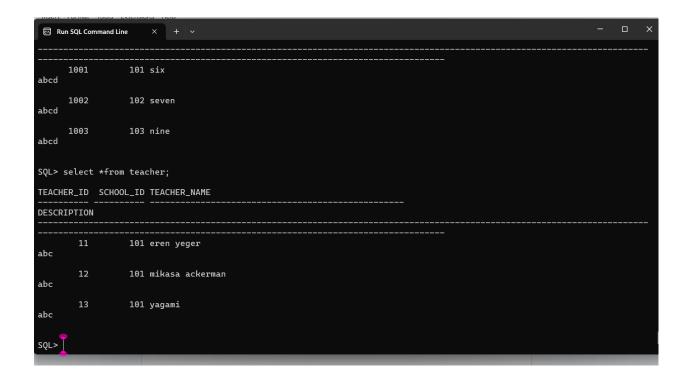
```
create table school(
school_id int primary key,
schoolname varchar2(255) not null,
description varchar2(255),
Address varchar2(255),
phone varchar2(255),
postcode varchar2(255),
postaddress varchar2(255),
postaddress varchar2(255),
unique(schoolname)
);
INSERT INTO school values(101,'czs','best place in earth','cumilla','0123','3507','kandirpar');
INSERT INTO school values(102,'bzs','not the best place in earth','rangpur','0123','3507','kandirpar');
INSERT INTO school values(103,'rzs','not the best place in earth','rangpur','0123','3507','kandirpar');
```

```
unique(ClassName)
);
INSERT INTO class values(1001,101,'six','abcd');
INSERT INTO class values(1002,102,'seven','abcd');
INSERT INTO class values(1003,103,'nine','abcd');
##############################
create table teacher(
  teacher id int not null,
  school id int,
  teacher name varchar2(50),
  description varchar2(255),
  primary key(teacher id),
  FOREIGN KEY (school id) REFERENCES school(school id)
);
INSERT INTO teacher values(11,101,'eren yeger','abc');
INSERT INTO teacher values(12,101, 'mikasa ackerman', 'abc');
INSERT INTO teacher values(13,101,'yagami','abc');
create table course(
  course id int not null,
  school id int not null,
  course name varchar2(50),
  description varchar2(255),
  primary key(course id),
  FOREIGN KEY (school id) REFERENCES school(school id)
);
INSERT INTO course values(4501,101,'OS','abc');
INSERT INTO course values(4503,101,'MicroP','abc');
INSERT INTO course values(4508,101,'RDBMS','abc');
create table course teacher(
  teacher id int,
  course id int,
  primary key(teacher id,course id),
  FOREIGN KEY(teacher id) REFERENCES teacher(teacher id),
  foreign key(course id) REFERENCES course(course id)
INSERT INTO course teacher values(11,4501);
```

```
INSERT INTO course teacher values(12,4503);
INSERT INTO course teacher values(13,4503);
CREATE TABLE student (
 student id INT PRIMARY KEY,
 class id INT NOT NULL,
 student name VARCHAR(255) NOT NULL,
 student number INT,
 TotalGrade DECIMAL(4, 2) CHECK (TotalGrade >= 2.0 AND TotalGrade <= 4.0),
 address VARCHAR(255) DEFAULT 'IUT',
 phone VARCHAR2(15),
 email VARCHAR(255) CHECK (email LIKE '%@gmail.com'),
 FOREIGN KEY (class id) REFERENCES class (class id)
);
INSERT INTO student(class id, student name, student number, TotalGrade, address, phone, email)
VALUES (1001, 'Jane Smith', 1, 3.95, '456 Elm St', '5555678', 'jane.smith@gmail.com');
INSERT INTO student (class id, student name, student number, TotalGrade, phone, email)
VALUES (1001, 'Joe rogan', 1, 3.95, '5555678', 'jane.smith@gmail.com');
INSERT INTO student (class id, student name, student number, TotalGrade, phone, email)
VALUES (1001, 'Captain Levi', 1, 4.00, '666678', 'leviAckerman@gmail.com');
create table student course(
 student id int not null,
 course id int not null,
 FOREIGN key(student id) REFERENCES student(student id) on delete cascade,
 FOREIGN key(course id) REFERENCES course(course_id) on delete cascade
);
```

```
CREATE SEQUENCE student id sequence
  START WITH 2041101
  INCREMENT BY 1
  NOMAXVALUE
  NOCACHE;
####
create table std(
  std id int primary key,
  name varchar2(10)
)
CREATE OR REPLACE TRIGGER set student id trigger
BEFORE INSERT ON student
FOR EACH ROW
DECLARE
  v query result NUMBER;
BEGIN
  SELECT student id sequence.NEXTVAL INTO v query result FROM dual;
  :NEW.student id := v query result;
END;
############
create table grade(
  student id int not null,
  course id int not null,
  grade NUMBER,
  FOREIGN key(student id) REFERENCES student(student id),
  foreign key(course id) REFERENCES course(course id)
);
insert into grade values(2041104,4501,4);
insert into grade values(2041104,4501,4);
insert into grade values(2041104,4501,4);
```

```
Run SQL Command Line
POSTADDRESS
       101
best place in earth
cumilla
0123
3507
kandirpar
       102
bzs
not the best place in earth
barisal
0123
3507
kandirpar
       103
rzs
not the best place in earth
rangpur
0123
3507
kandirpar
SQL>
```



```
Run SQL Command Line
      1001
                  101 six
abcd
      1002
                 102 seven
abcd
                 103 nine
SQL> select *from teacher;
TEACHER_ID SCHOOL_ID TEACHER_NAME
DESCRIPTION
              101 eren yeger
abc
                101 mikasa ackerman
abc
               101 yagami
abc
SQL>
```

AT SOME QUERY RESULTS I CAN"T ORGANIZE THE CMD PROMT.I APOLOGIZE FOR THAT.I HOPE YOU'LL BE KIND ENOUGH TO UNDERSTAND THAT