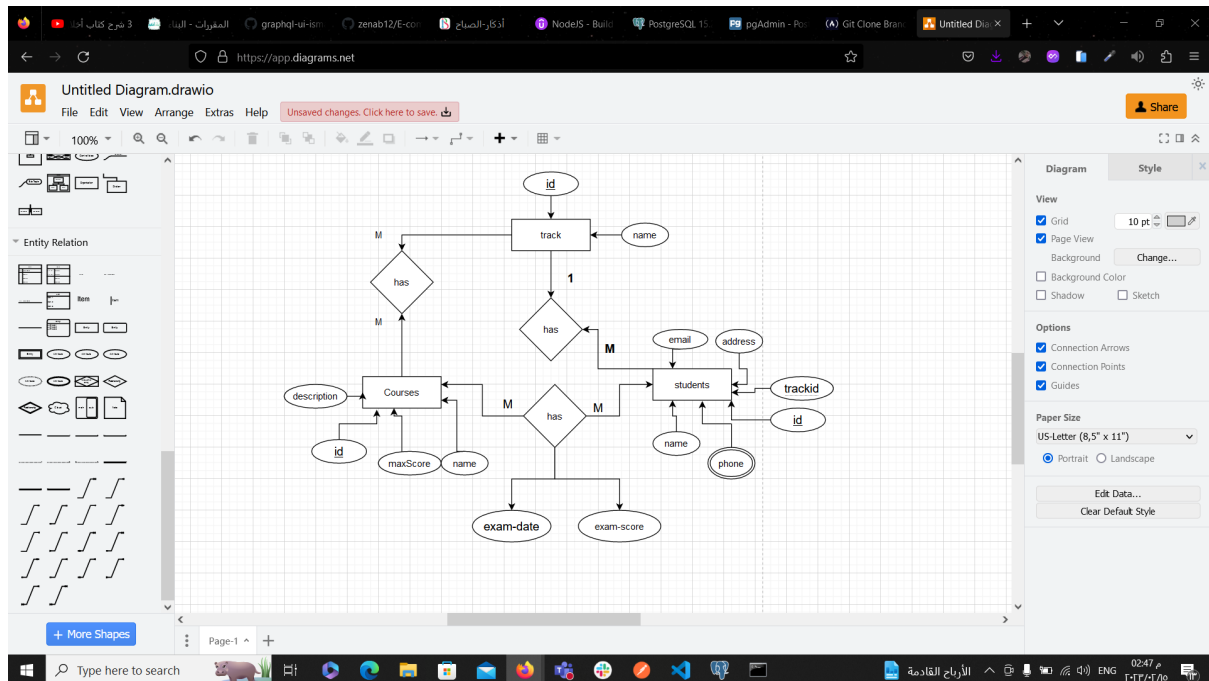
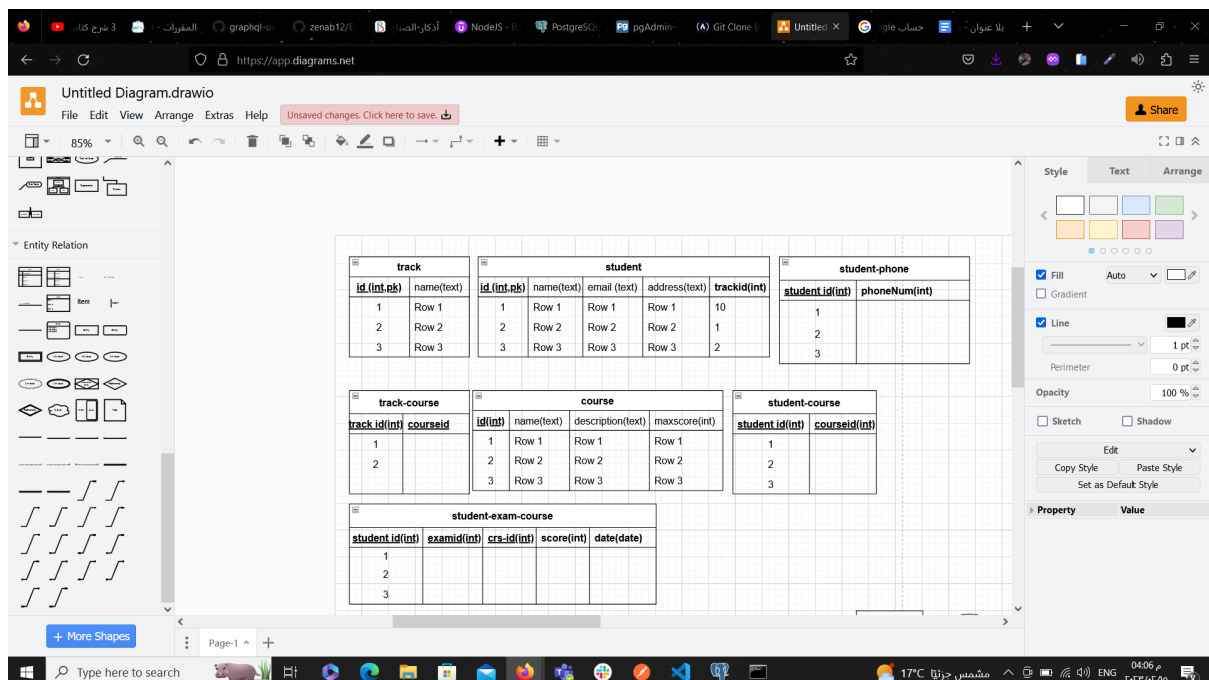


ERD Diagram



Mapping ERD



Commands

- create database iti;
- \c iti
- create table students(id int,name text,email text,address text,trackid int);
- create table courses(id int,name text,description text,maxscore int);
- create table track(id int,name text);
- create table trackCourse (trackid int,crsid int);
- create table studentPhone(id int,phonenumber int);
- create table studentCourse(stdid int,crsid int);
- create table studentCourseexam(stdid int,crsid int,examid int,score int ,date date);
- insert INTO students values
(1,'amir','amir@gmail.com','Mansoura',2),(2,'omar','omar@gmail.com','Mansoura',10),(3,'zien','zien@gmail.com','Mansoura',15),(4,'Noor','Noor@gmail.com','cairo',25),(5,'Souad','Souad@gmail.com','cairo',5);
- insert INTO courses values (1,'c++','c++ course',100),(2,'c++','c++ course',100),(3,'c++','c++ course',100),(4,'c++','c++ course',100),(5,'c++','c++ course',100);
- insert INTO track values
(1,'ui-ux'),(2,'sd'),(3,'embded'),(4,'front-end'),(5,'backend');
- insert INTO studentPhone values
(1,0192922611),(2,01929226351),(3,01929226351),(4,01929226351),(5,01929226351);
- insert INTO studentCourse values (1,2),(2,1),(3,5),(4,4),(5,3);
- insert INTO studentCourseexam values
(1,2,1,80,'12/1/2000'),(1,3,2,70,'12/1/2000'),(1,4,3,60,'12/1/2000'),(1,5,4,80,'12/1/2000');
- insert INTO trackCourse values (1,2),(2,1),(3,5),(4,4),(5,3);

```
SQL Shell (psql)
(5 rows)

iti=# select * from students;
 id | name | email | address | trackid
-----
 1 | amir | amir@gmail.com | Mansoura | 2
 2 | omar | omar@gmail.com | Mansoura | 10
 3 | zien | zien@gmail.com | Mansoura | 15
 4 | Noor | Noor@gmail.com | cairo | 25
 5 | Souad | Souad@gmail.com | cairo | 5
(5 rows)

iti=# select * from track;
 id | name
-----
 1 | ui-ux
 2 | sd
 3 | embeded
 4 | front-end
 5 | backend
(5 rows)

iti=# select * from trackCourses;
ERROR: relation "trackCourses" does not exist
LINE 1: select * from trackCourses;
                      ^

iti=# select * from trackCourse;
 trackid | crsid
-----
 1 | 2
 2 | 1
 3 | 5
 4 | 4
 5 | 3
(5 rows)

iti=# select * from track;
 id | name
-----
 1 | ui-ux
 2 | sd
 3 | embeded
 4 | front-end
 5 | backend
(5 rows)
```

```
SQL Shell (psql)
2 | sd
3 | embeded
4 | front-end
5 | backend
(5 rows)

iti=# select * from trackCourse;
 trackid | crsid
-----
 1 | 2
 2 | 1
 3 | 5
 4 | 4
 5 | 3
(5 rows)

iti=# select * from studentPhone;
 id | phonenumber
-----
 1 | 192922611
 2 | 1929226351
 3 | 1929226351
 4 | 1929226351
 5 | 1929226351
(5 rows)

iti=# select * from studentCourse;
 stdid | crsid
-----
 1 | 2
 2 | 1
 3 | 5
 4 | 4
 5 | 3
(5 rows)

iti=# select * from studentCourseexam;
 stdid | crsid | examid | score | date
-----
 1 | 2 | 1 | 80 | 2000-01-12
 1 | 2 | 1 | 80 | 2000-01-12
 1 | 3 | 2 | 70 | 2000-01-12
 1 | 4 | 3 | 60 | 2000-01-12
 1 | 5 | 4 | 80 | 2000-01-12
(5 rows)
```

What is NOSQL ?

NoSQL, also referred to as “not only SQL”, “non-SQL”, is an approach to database design that enables the storage and querying of data outside the traditional structures found in relational databases.

