PostgressSQL

README: Similar to the UML the title of each note
is the name of the corresponding table/trigger in the database.

##################################**NOTES**######################################
Direction:
Needed to set both x and y as unique, because I could
not add them as foreign keys in the Segment table if
they were not unique.

Segment:
Segment is a composition with Line, thus deletes or
updates are made on cascade. If a line is deleted, its
corresponding Segment and Direction will also be.

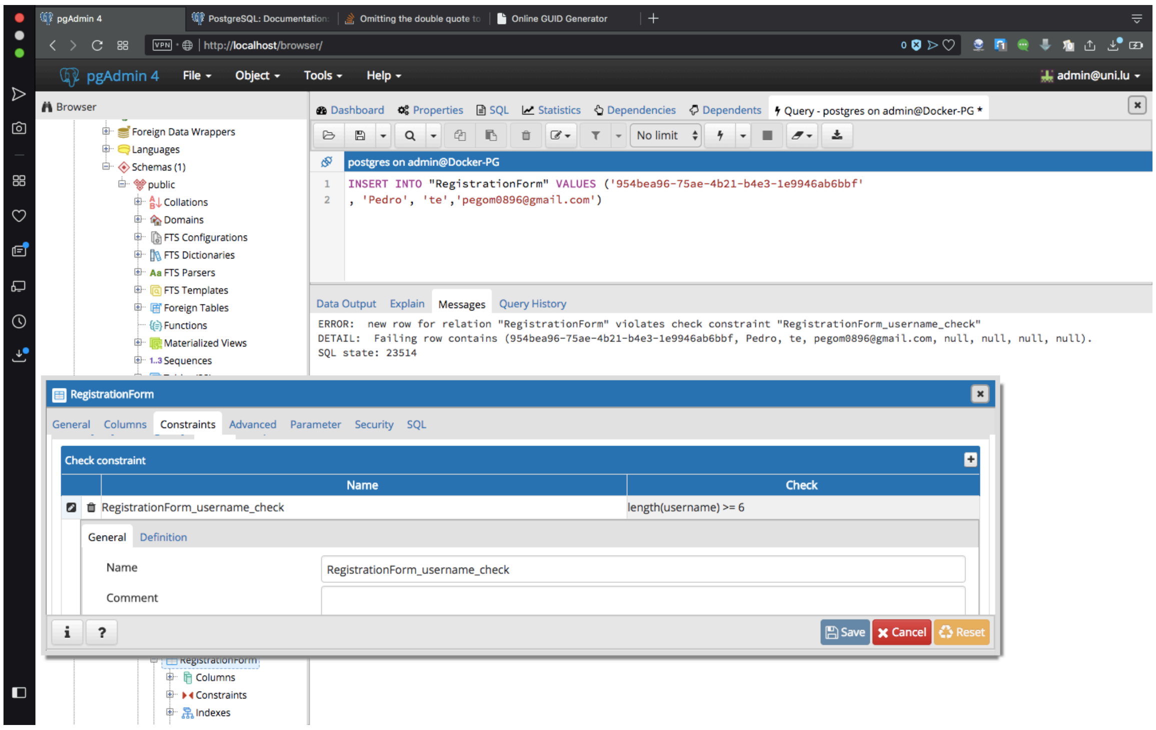
StationLine_Join:
In the UML scheme Station and Line have a many-to-many relation, hence
I created a join to represent this cardinality. The AverageTime, which
is an attribute of the Station and Line relationship can also be found
in this Join. I followed the same approach for other many-to-many relations
such as Drive -- Train.

Coach:
Train_ID is a foreign key, which REFERENCES a Train ID.
I used this to represent a one-to-many relation, where Train is
the 'one', and the 'many' is the Coach itself. To avoid redundancy, please
take in consideration this explanation for other relations of the same kind.

MaintenanceProblem_Join:
Again, another join, because a (Train||Coach) and Maintenance relation
can have several Problems, but a Problem can also have several Maintenances.

Driving_Time:
Note that I set both time and date as PK on purpose. Because if
an instance of Driving_Time has the same date and time, it should be considered the same,
and the administrator is able to see which Drivers are driving
which Train at a given time x.

RegistrationForm:
There are two Check Constraints here, which verify the length of the password, and the length of the username. In the following picture you can see that I’m trying to INSERT into the Registrationform table a new username, and its username is only “te”, it fails because the length(“te”) < 6:



```
INSERT INTO "RegistrationForm" VALUES ('954bea96-75ae-4b21-b4e3-1e9946ab6bbf'
, 'Pedro', 'te','pegom0896@gmail.com')
```

```
ERROR:  new row for relation "RegistrationForm" violates check constraint "RegistrationForm_username_check"
DETAIL:  Failing row contains (954bea96-75ae-4b21-b4e3-1e9946ab6bbf, Pedro, te, pegom0896@gmail.com, null, null, null, null).
SQL state: 23514
```

Name	Check
RegistrationForm_username_check	length(username) >= 6

Name	RegistrationForm_username_check
Comment	

//trigger
checks_segments
This trigger was intended to check if two stations that have different IDs, and thus are different, have at least two segments, if not an exception is raised.