SQL Agent Jobs

ISM 6218

Due on October 15th

The Avengers Team

"We will avenge every problem on our way"

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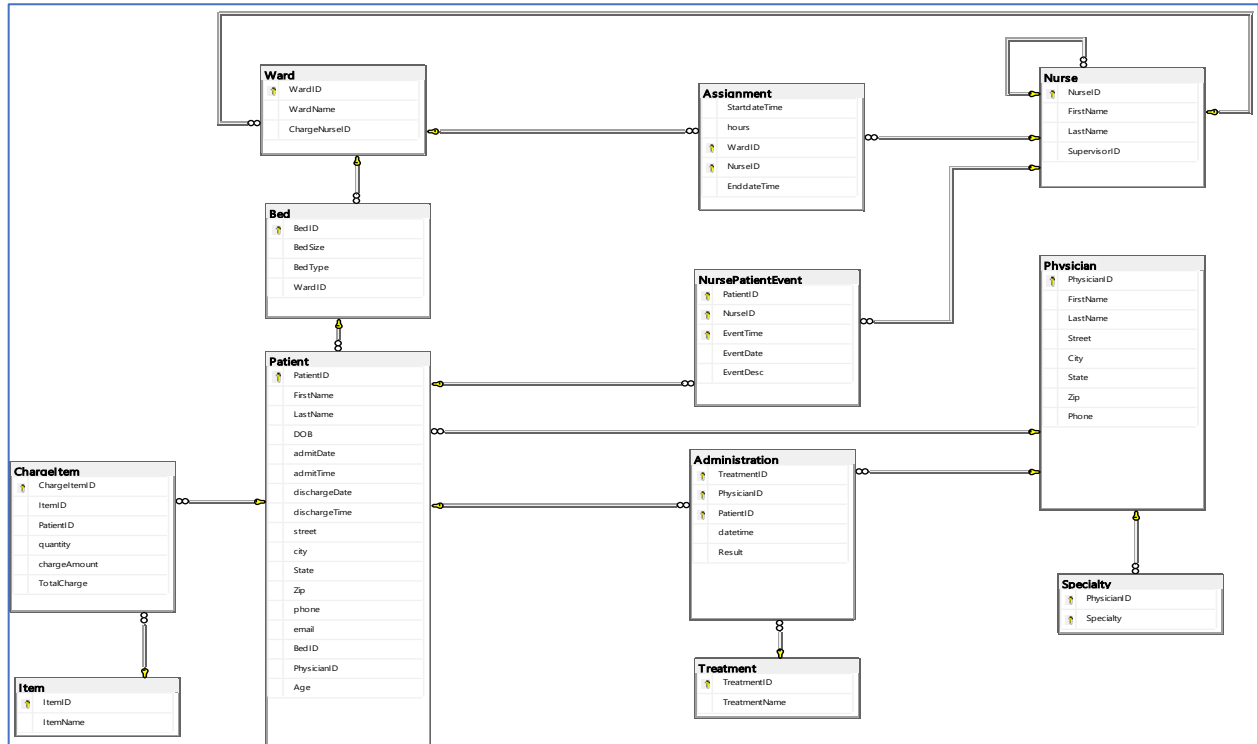## Business Process Supported

For this assignment, we decided to use Hospital database. In this particular example, we decided to create our own table "**erpatient**" so as to experiment with the SQL Agent and the jobs that we created as part of the requirement.

Requirements Described

Create any SQL job of your choice using the job agent.

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Hospital DB diagram:

Experiment with erpatient table:

SQL Agent Job:

Narrative:

The hospital now has an emergency room service. The hospital IT department is still figuring out how to store the data in the most efficient way. However, there is already a requirement for the generation of the daily reports on the ER patients. The ER table has been recently created and has such attributes as **erpatient_id**, **firstName**, **lastName**, **driverLicense**, **zip**, **state**, **city**, **street**, **phone**, and **age**. Creation of the new table:

```sql
create table erpatient (
    erpatient_id int identity,
    firstName varchar (20),
    lastName varchar (20),
    driverLicence varchar(13),
    zip varchar (20) not null,
    state char(2) not null,
    city varchar(10) not null,
    street varchar(10) not null,
    phone varchar(14),
    age int

)
```
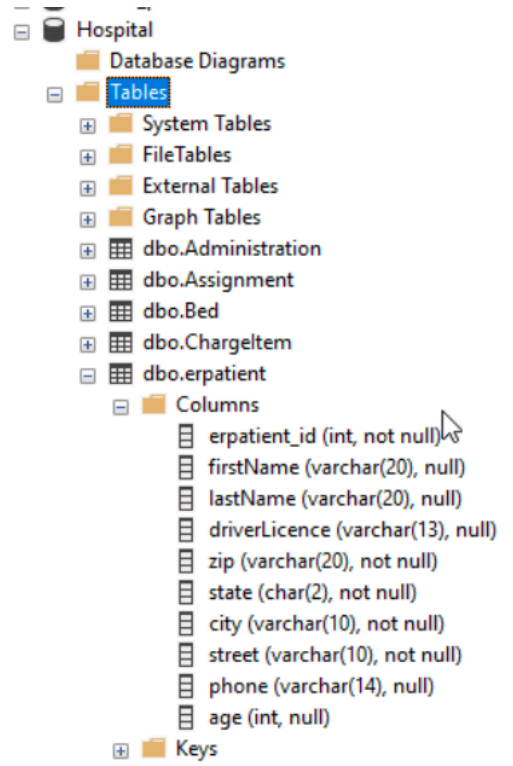
Also, at this point we have several records in the table:

	erpatient_id	firstName	lastName	driverLicence	zip	state	city	street	phone	age
1	1	John	Doe	AWSAZUREMSAC2	33647	FL	Tampa	14th Ave N	8134534431	18
2	2	Anthony	Smith	AWSAZUREMSAC7	33647	FL	Tampa	18th Ave N	8135554121	25
3	3	Angelina	Adams	AWSAZURERWAC7	33647	FL	Tampa	10th Ave S	8130024121	30
4	5	Josh	Willson	NULL	33647	FL	Tampa	Nebraska	7270024121	30
5	7	John	NULL	AWSAZURERWA12	33647	FL	Tampa	Nebraska	7271114121	35

User story:

According to the latest tendency, the UI users at the hospital without any technical background type in wrong data. The problem comes into place whenever they leave the driver license field blank. Neither the outdated UI, nor the backend service do validation of the blank value, that is why we accept the null values in the DB. Technically, the field can be null – this was the

database design, yet before we generate a report for the higher level executives, we don't want to present fields with a value of "NULL". The executives prefer seeing the data about the people who provided the valid documents only. Since we generate reports as minimum once in 3 days and as maximum once in 24 hours, we decided to create a job that "cleans" the data and get rids of the blank driver license records. The job's name is **ERPatientCleaner**:

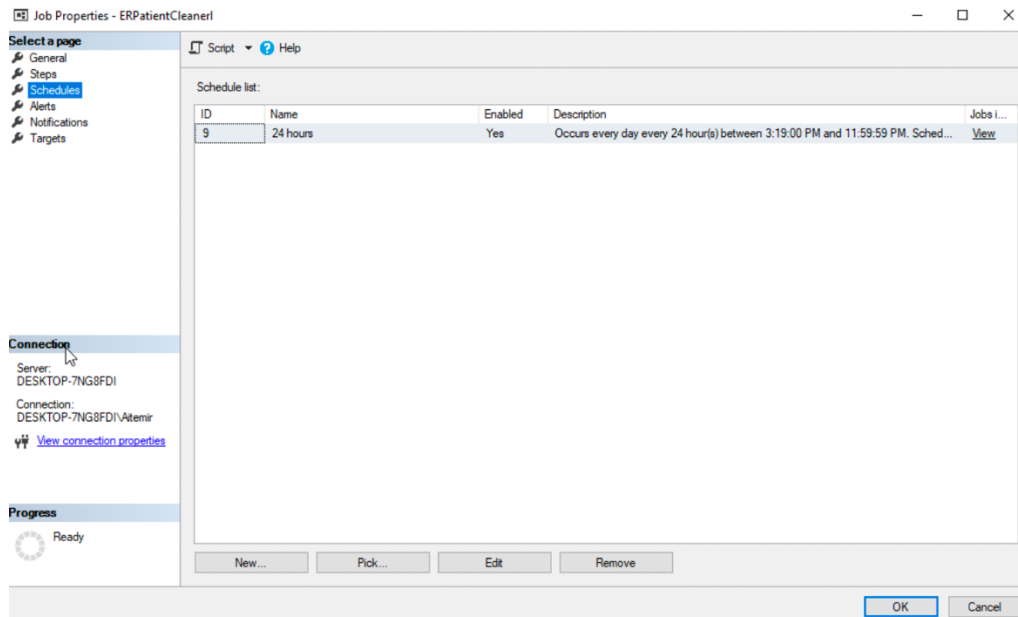There is one step, which is the delete statement for the blank / null value of a driver license:
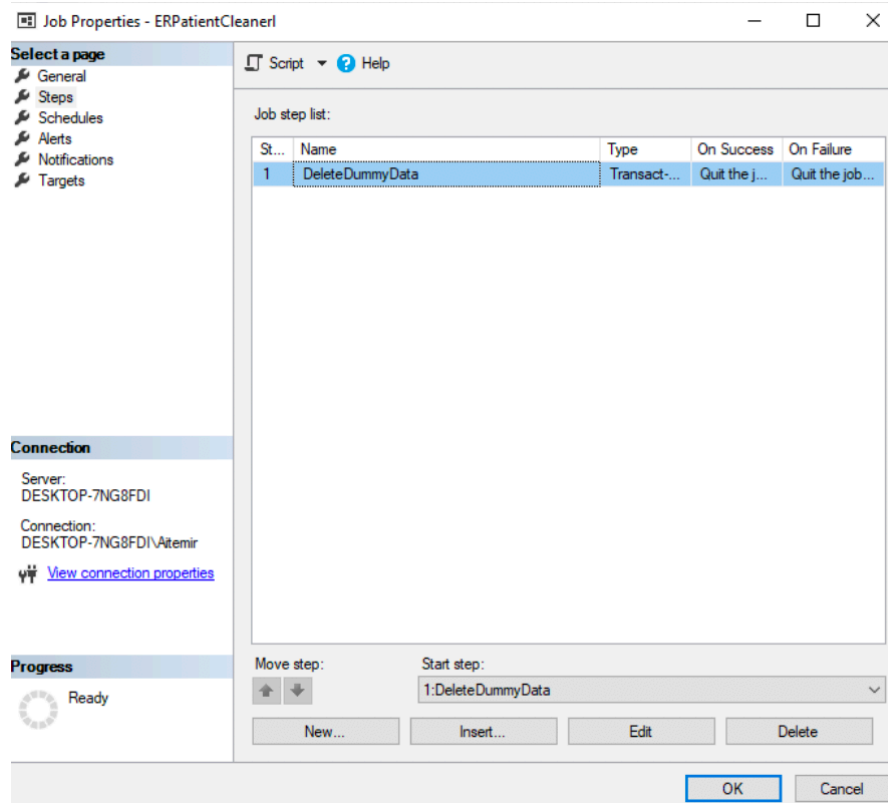
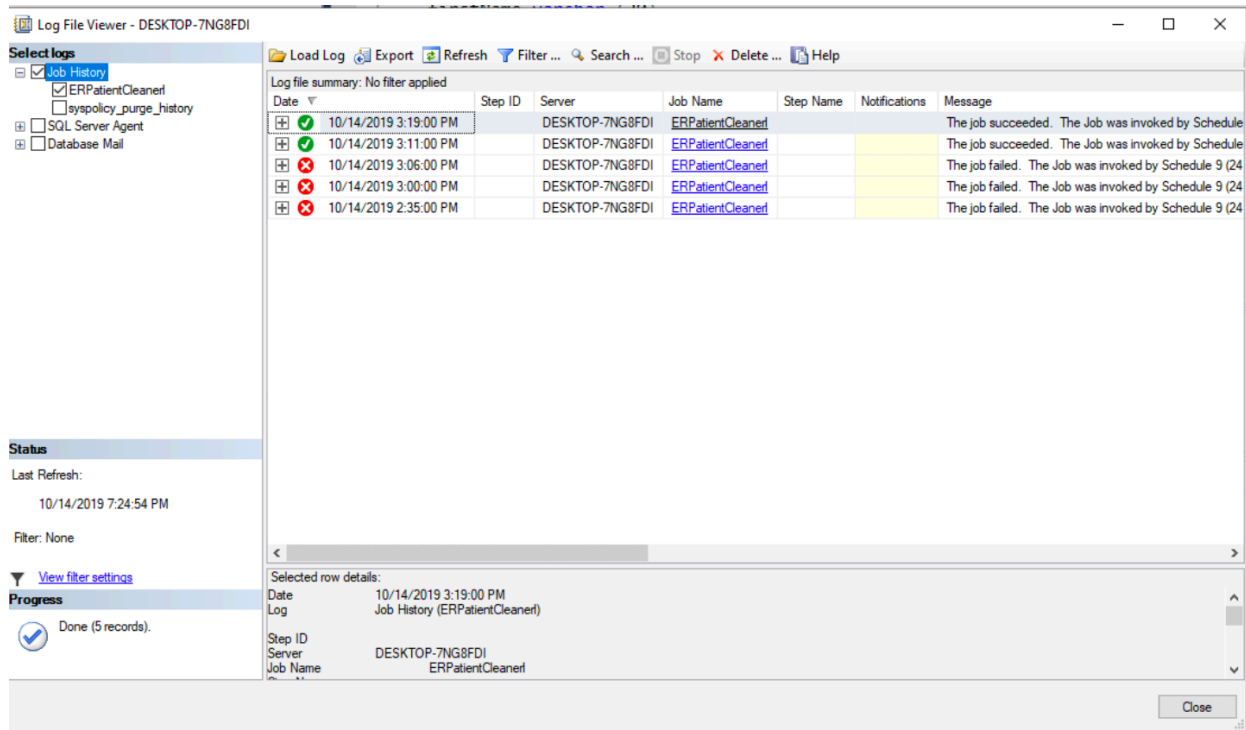Here are the details, under the command we have the delete statement:
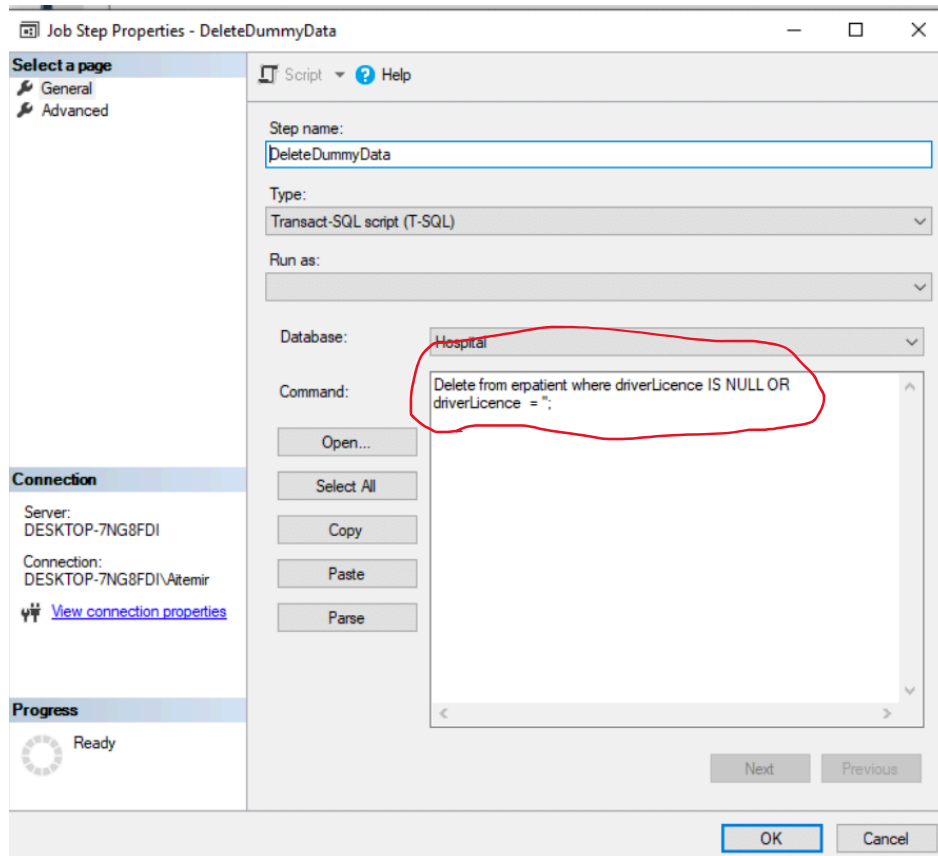
The statement is: DELETE FROM ERPATIENT WHERE driverLicense IS NULL OR

DRIVERLICENSE = """"

As you can see, we configured the schedule to run a job once in 24 hours:
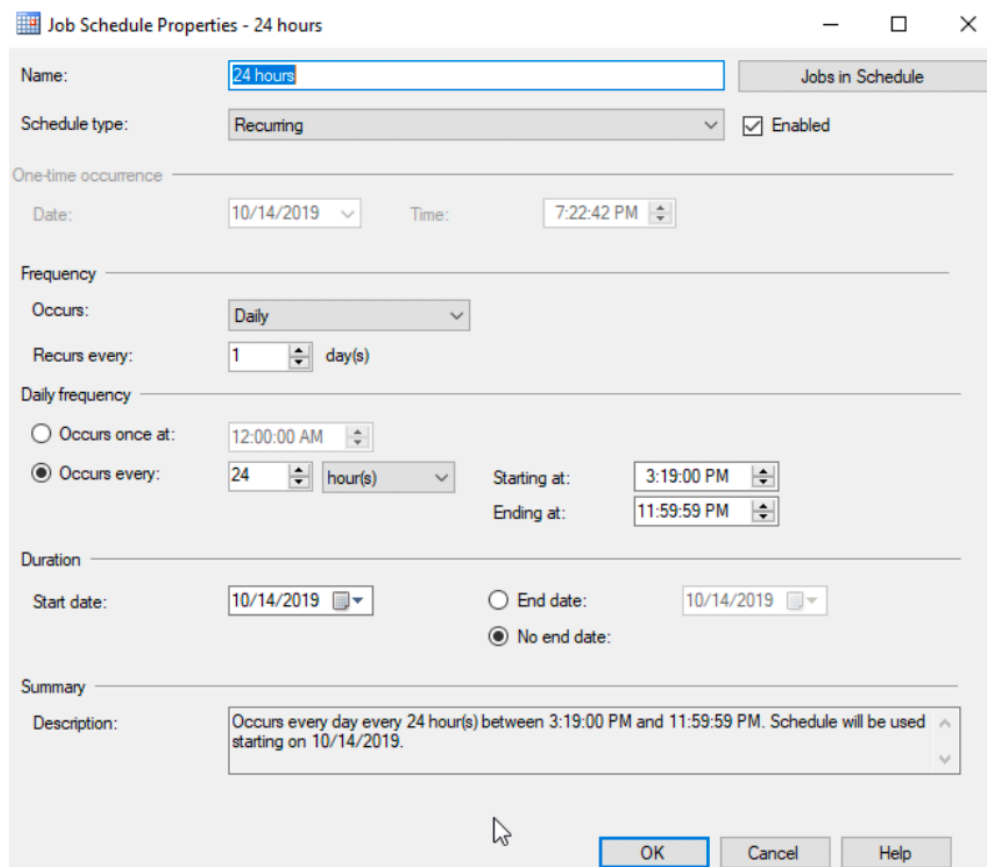
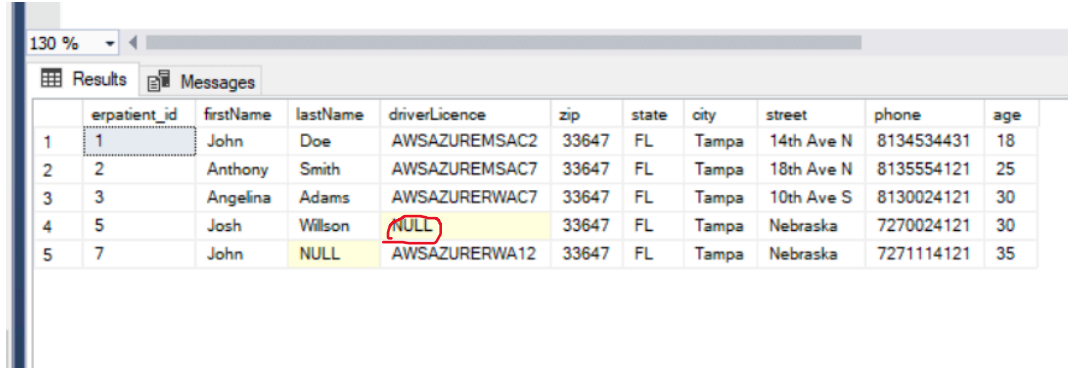The ERPatientCleaner job has been executed successfully at 3:19pm:

Do not pay attention to the previous job errors – these history records are there since we had to experiment with the job and had some authorization issues at the beginning. We specifically mention it since that allowed us to learn more about the job creation with the help of the SQL agent: it is a great tool that allows you to create a job that is highly customizable, you can give permissions to certain group of users and it can be scheduled to run however we want. Now, let's see how the data was affected:
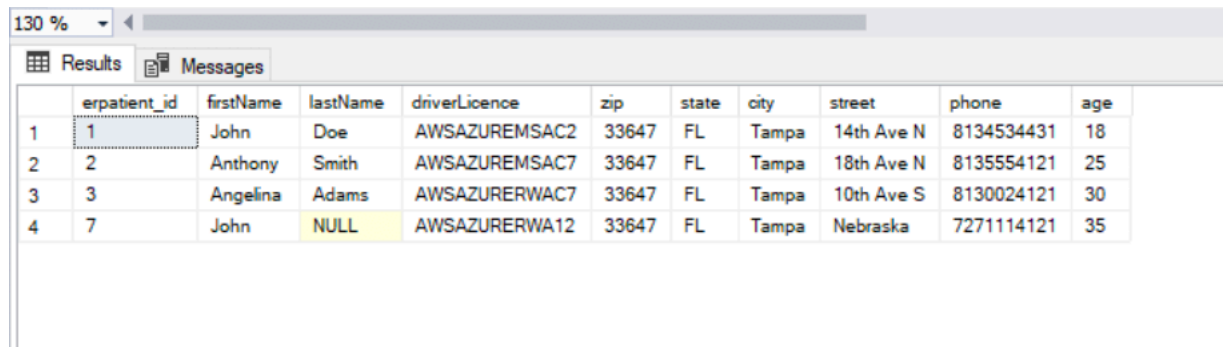

As you can see, patient with id 5 was deleted from the erpatient table. The job works as expected. Below is the before and after comparison again:

Before:

After:

To support our user story, let's summarize what we did. Whenever a user types in blank value

for the driver license – they make a mistake, but do not realize that it is going to the database.

Fortunately, after creation of the job, this will not a be a problem again.