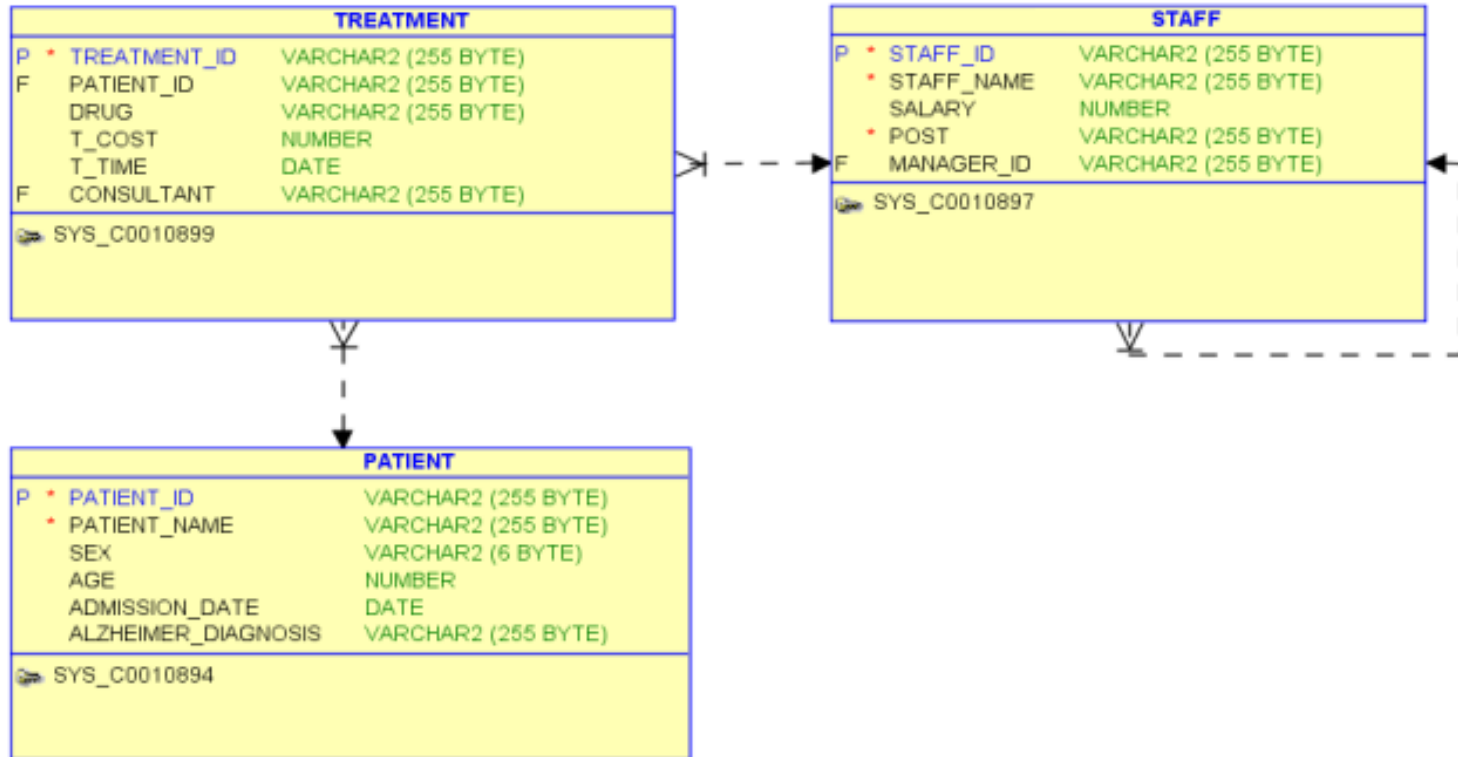# SQL Basics

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Select

- SELECT * FROM STP.patient;
- List the current age of patients, note that the age is the age at the addmission date. Current date: SYSDATE
- List the patients who has an admission date later than 2005.01.01 ordered by their age .

Where clause – Patter matching

- String data, pattern matching with %
- SELECT *
  FROM STP.patient
  WHERE patient _name LIKE 'A%';
- Get the patients who has „ar" in their name
- What is the ID of the patient whos name starts with „Henry"?

Where clause - NULL

- IS NULL, IS NOT NULL

- SELECT *
  FROM STP.patient
  WHERE patient _name IS NULL;

- Get the lines from treatment where the cost is not „empty".

- Try
  SELECT *
  FROM STP.treatment
  WHERE cost<60 OR cost >=60;

Basic functions - scalar

- Usually one input -> one output
- to_date(), to_number(), lower(), upper(), nvl(), round(), floor(), etc.
- Print the name of drugs with lower case letters.
- Select all lines from treatment but substitute null values with 0.

Basic functions – group/aggregate

- Usually many rows as input -> one output
- avg(), count(), first(), last(), max(), min(), sum(), etc.
- What is the average salary?
- What is the monthly amount, that the hospital spends to the salary of all workers.
- When was the earliest /latest treatment?
- How many treatments were there altogether?
- How many times as a drug given?
- What are the first and last names of the patients? – optional, use documentation to find the appropriate function

CREATE TABLE AS

- **CREATE TABLE tablename
  AS (SELECT column_1, column2, ... column_n
  FROM old_table_1, old_table_2, ... old_table_n);**

- It makes a copy of (selected colums of) another table(s)

- It will copy the rows as well

- Copy the tables from the STP schema to yours.

UPDATE

- **UPDATE TABLE tablename
  SET column1=value1,column2=value2,…
  WHERE some_column=some_value;**

- If some records needs to be changed

- The diagnosis of patient P9500 changed from moderate fo severe.

DELETE

- **DELETE FROM tablename
WHERE some_column=some_value;**

- One or more records needs to be deleted

- Delete all female patients

- Henry Kip was relocated to another hospital, delete him from the database

- Delete all records from patient (where clause is not needed)