

In a graph database containing clinical data, we will show how we can look at data from different perspectives. As an example, a list of members with patients utilizes reflective logic to display data with patient as a vantage point.

Vantage point

The perspective from which you want to observe the data in the database. Could be patients.

Reflective logic

A technical implementation with a two-step query process used to be able to look at data from a specific vantage point.

List of members

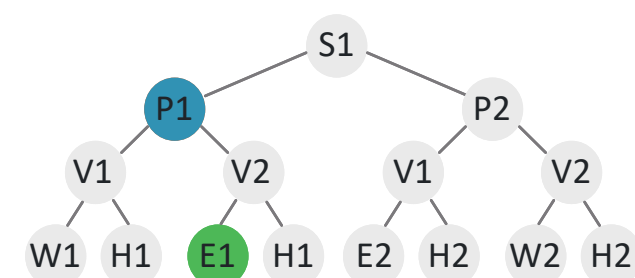
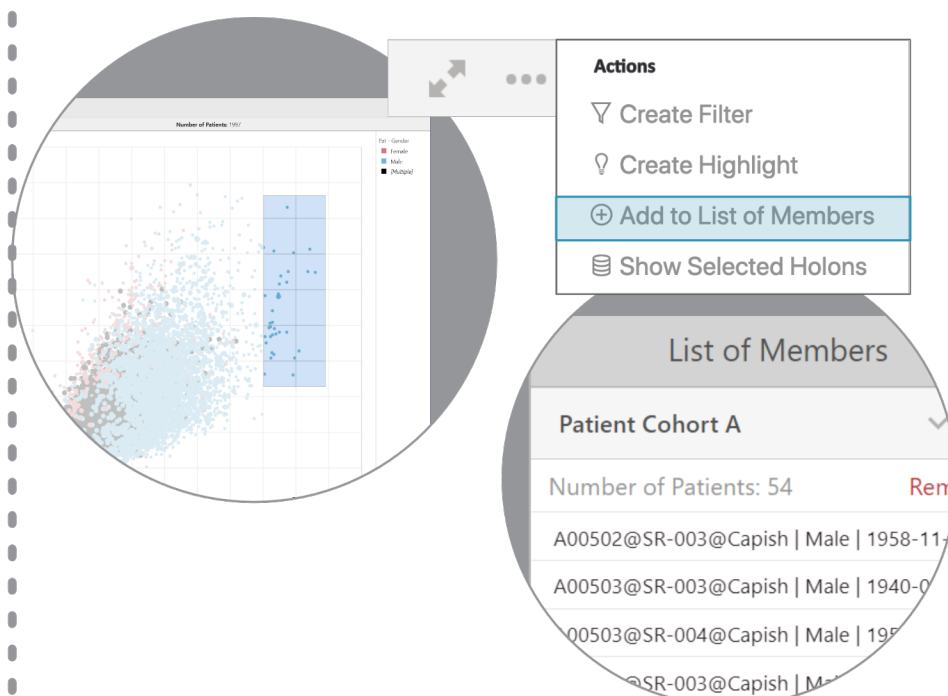
The contents of a cohort, e.g. patients.

Practical

Theoretical

STEP 1: All values with high primary endpoint values are selected in the chart and the patients having these values are added to a cohort by selecting Add to List of Members in an action menu.

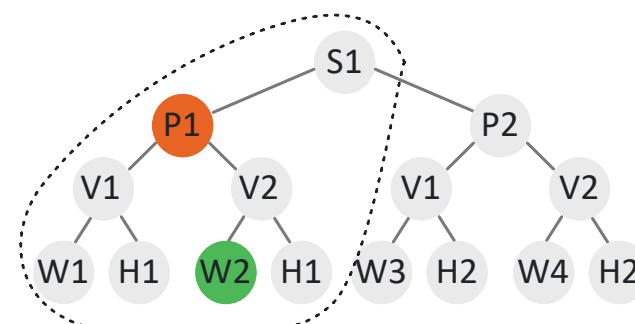
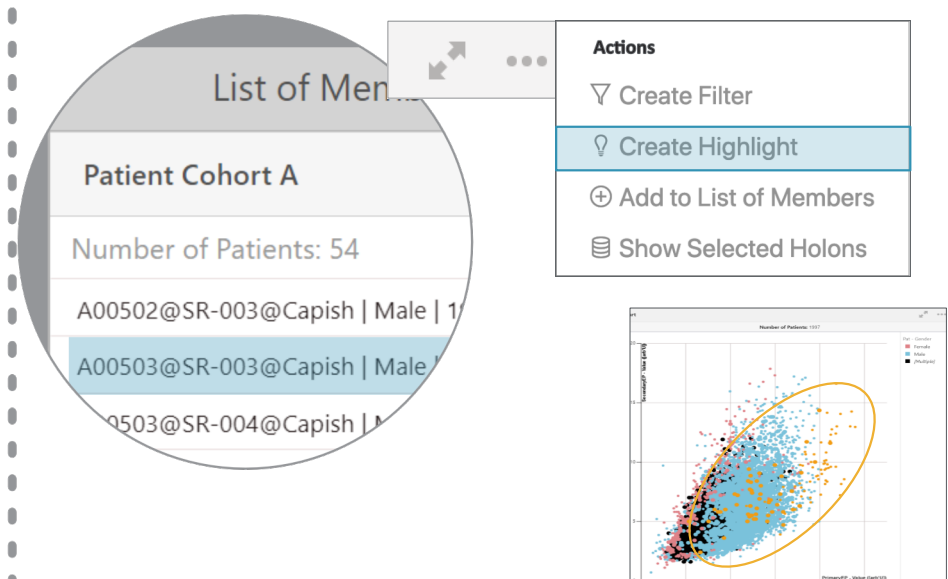
In step 1 we want to find all patients (●) having the high values (●).



Depending on how the query is asked, how data is modelled, and which vantage point that is selected, the answer can be different.

STEP 2: Highlighting or filtering based on the cohort or individual patients in the list of members utilizes the reflective logic to return all values for the selected patients, i.e. more information than that was included in the original selection.

In step 2 we retrieve all data ever related to the detected vantage points, patient (●).



Regardless from where we make the restriction query the result will always be given from the selected vantage point.

Introduction

Reflective logic together with an interface used for a graph database, makes it is possible to look at data from different perspectives.

Here we will focus on how we can get more information out of data by e.g. utilizing lists of patients.

Sometimes you need to look at data



from a different perspective

Conclusion

There are additional advantages of using vantage points. Features such as comparing different data sets or finding patients that are similar in different ways can be done instantly.

Benefits of Using a Vantage Point

Instead of acting directly on interesting values it is possible to use a vantage point to e.g. highlight all data for patients that have the selected values. The benefit of choosing to use a vantage point is that not only the selected information is available but also all information related to the selected vantage point. The member view and the data view can be used to go deeper into details for the selected vantage point.

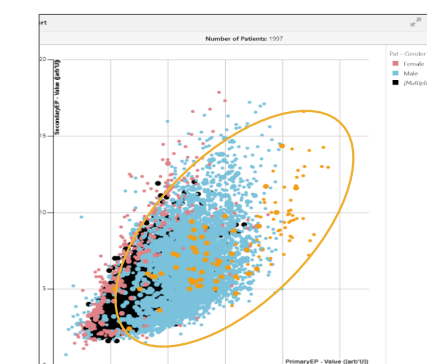
Highlight - Show selection in context

Highlighted values and its related values are marked as yellow, in the entire application.



Highlight on values

Creating a highlight based on the selected values, includes related values occurring at the same time throughout the application.



Highlight on patients

If instead adding a selection to List of Members prior to highlighting, all related values ever happened for the selected patients will be highlighted.



Member View - Dive deeper into each patient's data

From the List of Members, a member view is available where each member, in this case patient, can be studied in more detail with an easy overview of

- Powerful timelines with absolute and relative time
- Panels summarizing chosen data
- Flexible ways for the user to create tables or charts from where it is possible to
- Browse between patients in a cohort
- Switch between cohorts

Using clinical study as vantage point instead will show details on each study.

Data View - See the whole database

Connect to the database and reach all the values for selected patients.

- Browse between the patients
- Sort on category or time
- Both data and metadata are available

By switching to a list of members containing clinical studies, only data from each study will be available.

