

Automating Patient Data from OIS to SimRT

Erik Fura

Medical physicist

Västerås Central Hospital

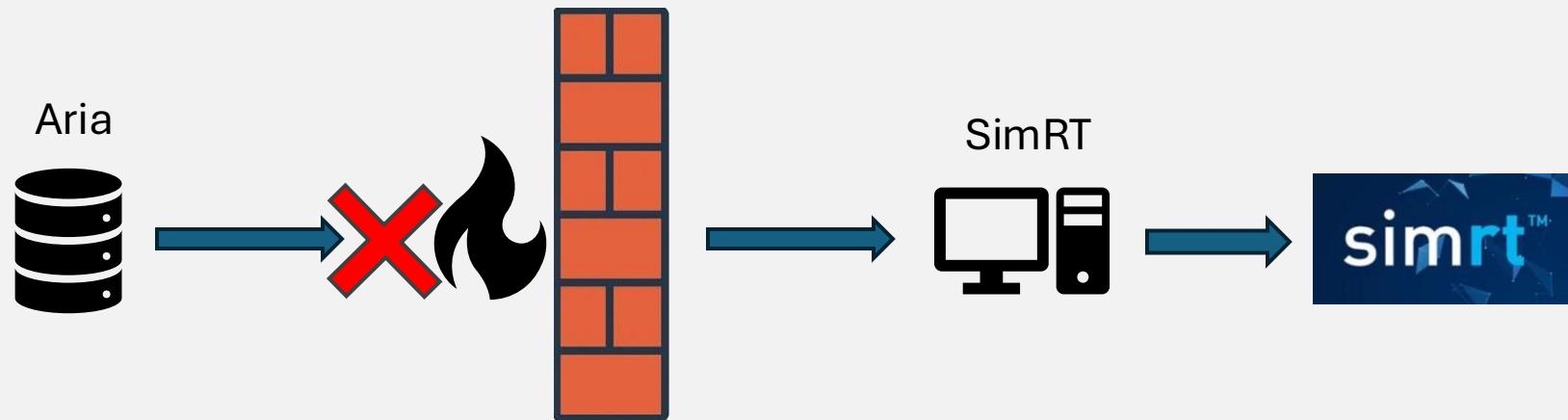


The challenge

- Patient data could not be automatically imported
- I won't accept that



The challenge



Workflow



Download
data

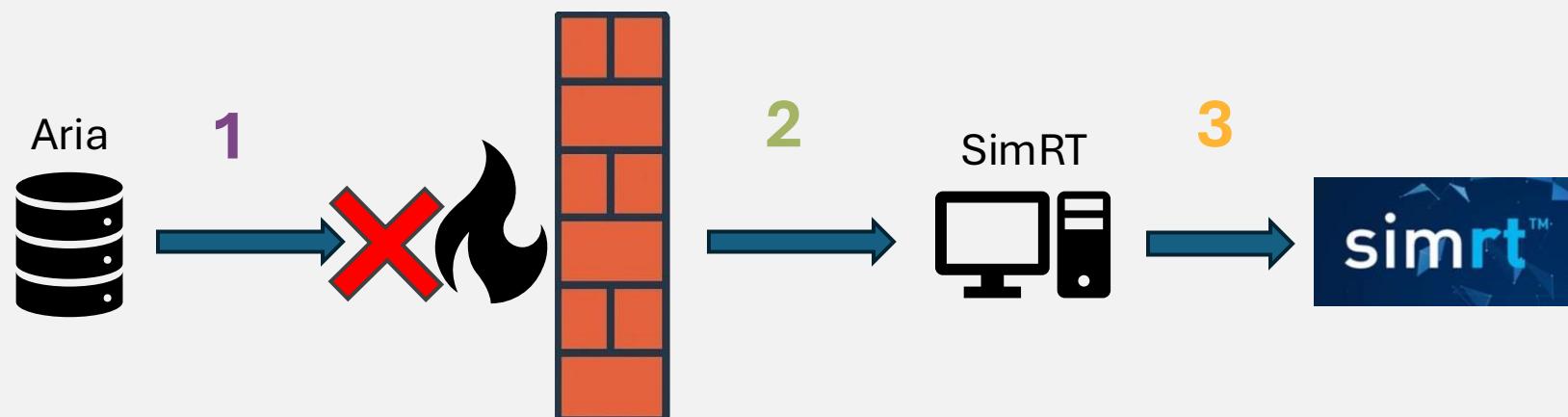
Get the patient data out from our OIS

Transfer data

Move the data from network of our OIS to SimRT workstation

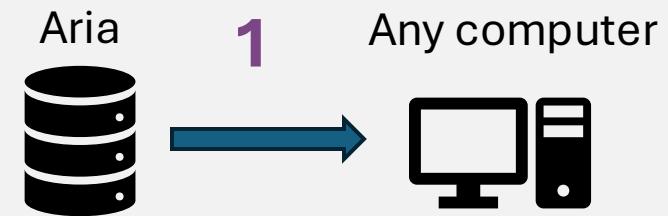
Import data

Import the patient data into the SimRT software





- How do we get the data from the OIS?



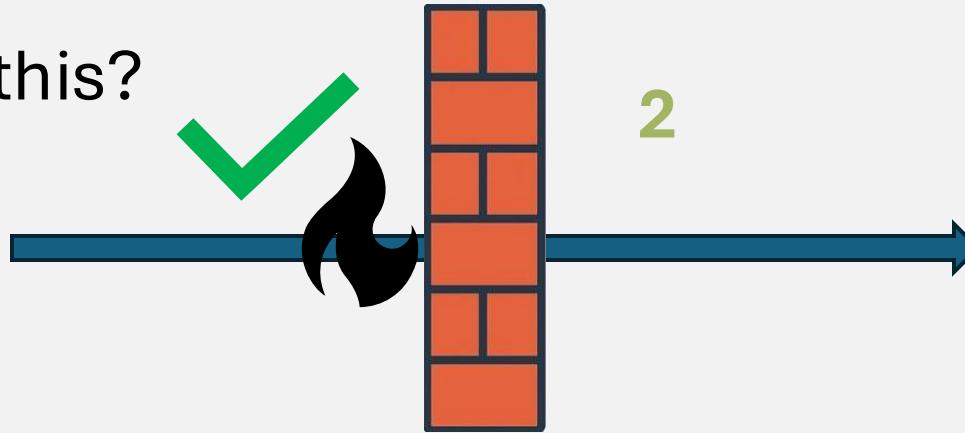
- SQL queries
- Can be done on any computer connected to the OIS network

Download data



```
47  public static DataTable GetScheduledSimPatientsOnCT(string startDate, string endDate)
48  {
49      Connect();
50      DataTable datatable = AriaInterface.Query(@"SELECT DISTINCT
51                      Patient.PatientId
52                      FROM
53                      ScheduledActivity WITH (NOLOCK),
54                      Activity WITH (NOLOCK),
55                      ActivityInstance WITH (NOLOCK),
56                      Patient WITH (NOLOCK),
57                      ResourceActivity WITH (NOLOCK),
58                      Machine WITH (NOLOCK)
59                      WHERE
60                      (Patient.PatientId LIKE '%19%' OR
61                      Patient.PatientId LIKE '%20%') AND
62                      ScheduledActivity.PatientSer = Patient.PatientSer AND
63                      ActivityInstance.ActivityInstanceSer = ScheduledActivity.ActivityInstanceSer AND
64                      ScheduledActivity.ScheduledStartTime BETWEEN '" + startDate + @"' AND '" + endDate + @"' AND
65                      ScheduledActivity.ScheduledActivitySer = ResourceActivity.ScheduledActivitySer AND
66                      ResourceActivity.ResourceSer = Machine.ResourceSer AND
67                      Machine.MachineId LIKE 'CT Canon' AND
68                      Activity.ActivitySer = ActivityInstance.ActivitySer AND
69                      (Activity.ActivityCode = 'DIB DT' OR
70                      Activity.ActivityCode = '4D DT')
71                  ");
```

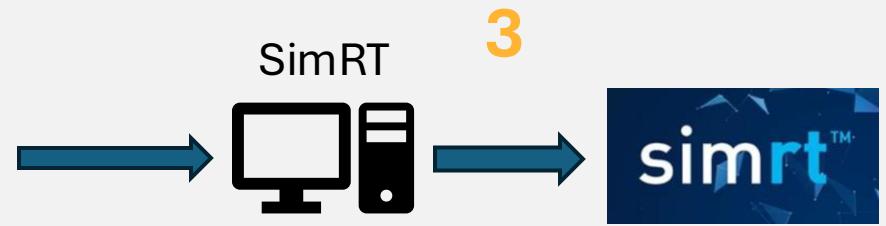
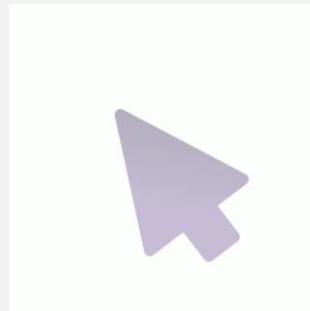
How do we accomplish this?



SimRT is not connected to the OIS network

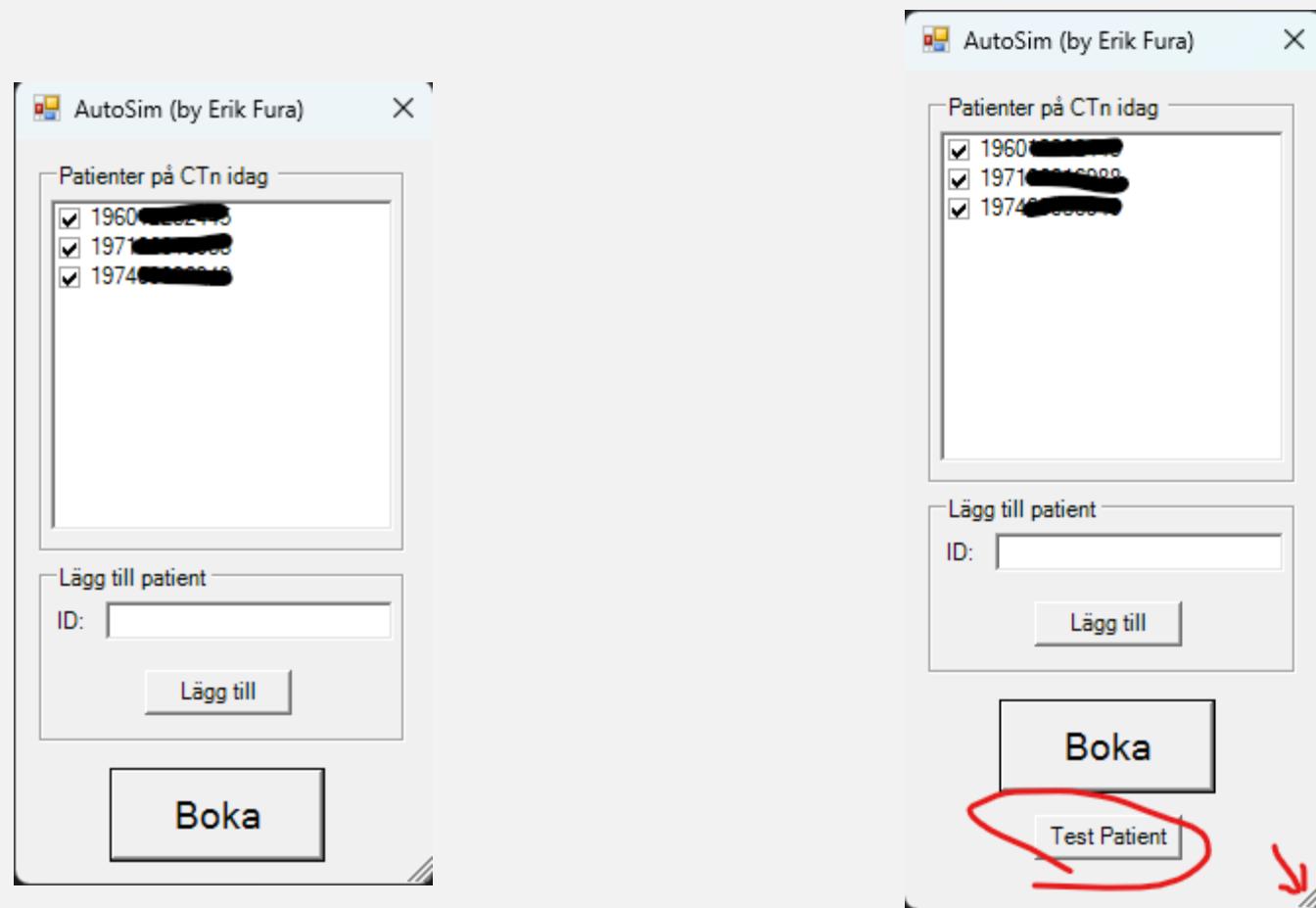
Needed confirmation from both Varian and VisionRT

- Quick and dirty solution

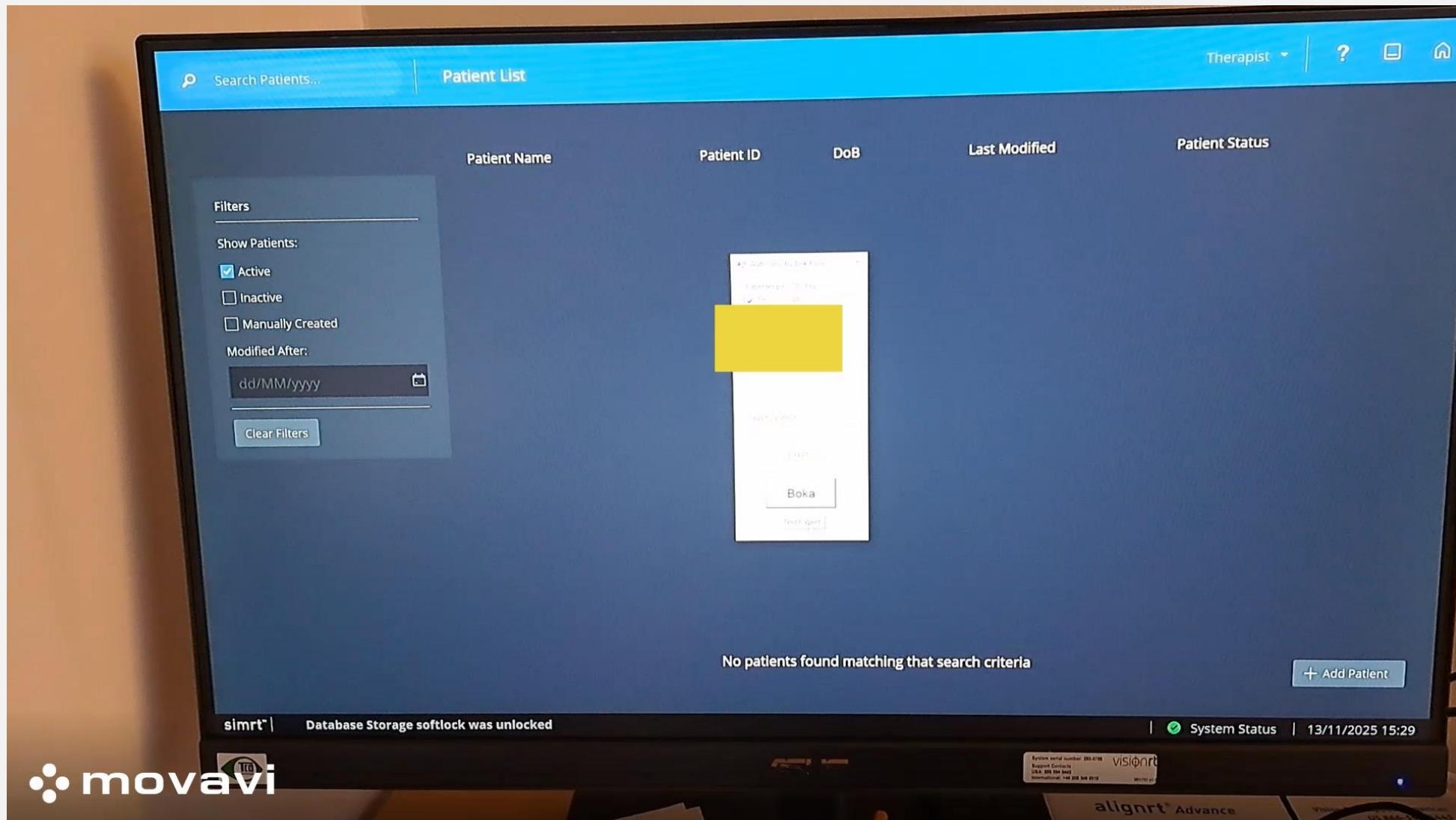


- Record positions and have the script click for you
- Should work with the standard monitor provided by VisionRT

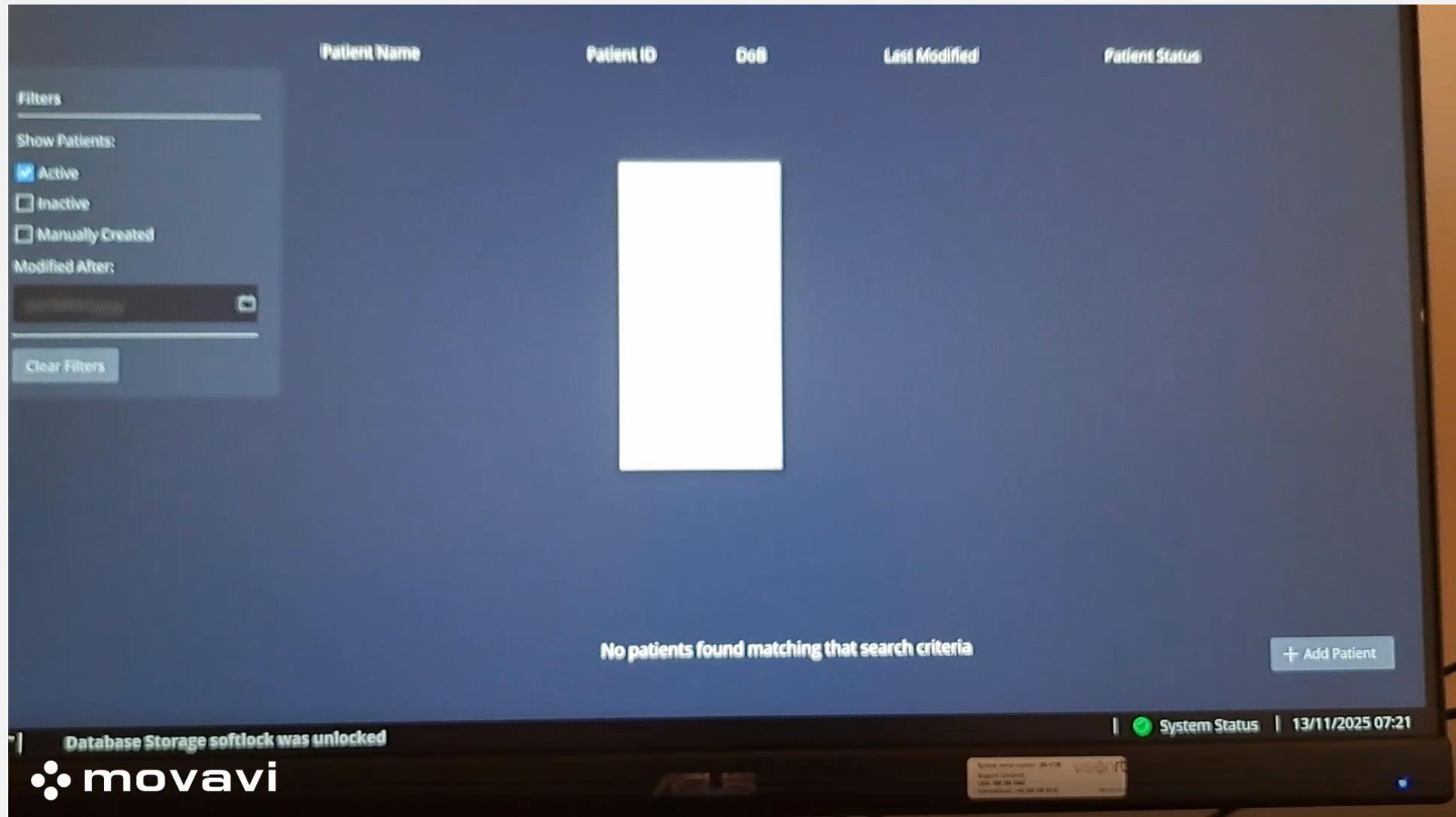
Finished product



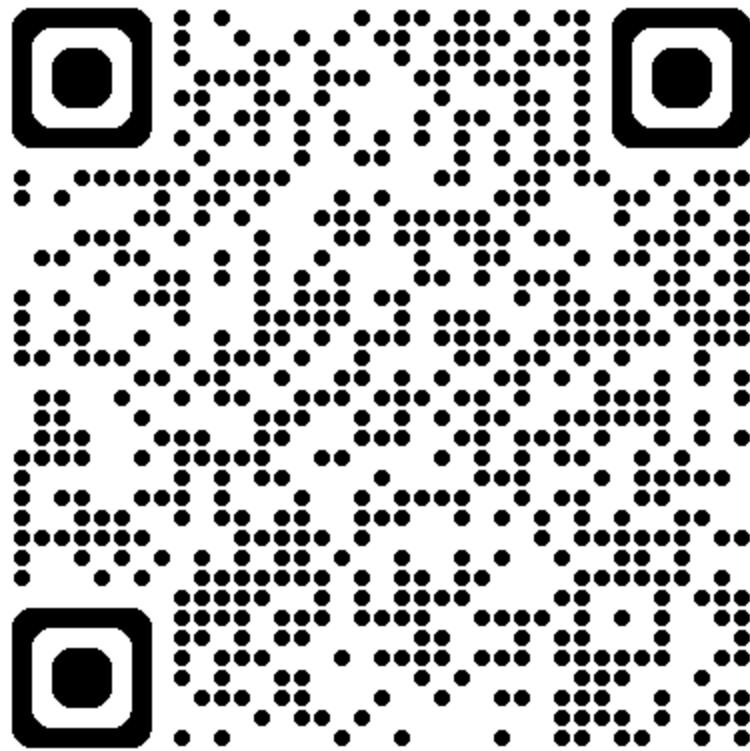
Finished product



Finished product



Link to script



Thank you for listening!