# Assignment 3c

#### Query 1

Shows Data of a worker and its warehouse, the worker works in.

#### Query 2

Shows Data about each warehouse. It specifically shows which printers are inside of each warehouse and shows also data about the printers. Additionally, we get all plans a printer is associated with.

#### Query 3

For every artist we get the plans he/she is associated with and, we get for each of these plans the one worker, who is responsible for this plan.

#### Query 3

This query shows specific info about a worker. We see all the shopping items the worker created (that he/she wants to buy) and all the plans the worker is responsible for.

For every query we limit the output to 100, so that we don't get to much data back and also the queries are faster. If all data is needed, the (limit 100) clause needs to be removed from each query.

</root>

#### SQL

```
select w.svnr, w.entry date, w.unique feature, w.first name, w.last name, w.nickname, ware.warehouse id, ware.
warehouse_name, p.printer_id, p.printer_info, p.extruder_type, p.price
          inner join warehouse ware on w.warehouse_id=ware.warehouse_id
         left join printer p on ware.warehouse_id = p.warehouse_id
     order by w.svnr, p.printer_id limit 100;
SQLXML
select xmlelement (name root, (
     select xmlagg(xml) from (
         set xmlagg(xml) from (
select xmledement(name worker, xmlattributes(svnr as svnr, entry_date as entrydate, unique_feature),
xmlforest(first_name as firstname,last_name as lastname, nickname),
xmlelement(name warehouse_zugeordnet, xmlattributes(ware.warehouse_id as warehouse_id),
xmlelement(name warehousename, ware.warehouse_name),
                  xmlelement (name printers, (
                      select xmlagg(
                          xmlforest(extruder_type, price)
                      ) from printer where printer.warehouse_id = ware.warehouse_id )
         ) as xml from worker w inner join warehouse ware on w.warehouse id=ware.warehouse id order by w.svnr limit 100
));
             <worker svnr="1001221180" entrydate="2015-10-17" unique_feature="very cruel">
              <firstname>Nicholas</firstname>
              <lastname>Gamble</lastname>
              <nickname> Blind Joe Reynolds</nickname>
              <warehouse_zugeordnet warehouse_id="91">
                <warehousename>The purple brave warehouse</warehousename>
                cprinters>
                   <printer printer_id="680">
                     <printer_info>
                       <name>ASK Technology crazy 39</name>
                       <weight>60</weight>
                       <measurements>
                         <print width>94</print width>
                         <print_depth>37</print_depth>
                         <print_height>22</print_height>
                       </measurements>
                     </printer_info>
                     <extruder_type>Direct</extruder_type>
                     <price>370</price>
                   </printer>
                   <printer printer_id="737">
                     <printer info>
                       <name>Sharp cruel 33</name>
                       <weight>90</weight>
                       <measurements>
                         <print_width>80</print_width>
                         <pri>depth>104</print_depth>
                         <print_height>26</print_height>
                       </measurements>
                     </printer info>
                     <extruder_type>Hotend</extruder_type>
                     <price>590</price>
                   </printer>
                </printers>
               </warehouse_zugeordnet>
             </worker>
```

#### SQL

```
select ware.warehouse_id, ware.warehouse_name, p.printer_id, p.printer_info, p.extruder_type, p.price
    from warehouse ware
        left join printer p on ware.warehouse_id = p.warehouse_id
        left join plan on p.printer_id = plan.printer_id and printer_warehouse_id = p.warehouse_id
    where ware.warehouse_id<100
    order by ware.warehouse id;</pre>
```

4	warehouse_id integer	warehouse_name character varying	printer_id integer	printer_info xml	extruder_type character varying	price double pred	plan_id integer	status character varying	<b>priority</b> character va	endproduct_name character varying	basic_instruction character varying
1	1	The green kind ware	9	<pre><printer_info></printer_info></pre>	Direct	3400	489	cancelled	very low	The blue nasty Spoon	Create a Spoon
2	1	The green kind ware	263	<pre><pre><pre>formula </pre></pre></pre>	Direct	1270	279	finished	low	The olive wise Hoover	Create a Hoover
3	1	The green kind ware	280	<pre><printer_info></printer_info></pre>	Direct	3170	[null]	[null]	[null]	[null]	[null]
4	1	The green kind ware	512	<pre><printer_info></printer_info></pre>	Hotend	2730	[null]	[null]	[null]	[null]	[null]
5	1	The green kind ware	552	<pre><printer_info></printer_info></pre>	Direct	3230	[null]	[null]	[null]	[null]	[null]
6	1	The green kind ware	584	<pre><printer_info></printer_info></pre>	Direct	2730	9	working	very low	The red emergency Clock	I would like you to d
7	1	The green kind ware	715	<pre><printer_info></printer_info></pre>	Bowden	2350	224	working	high	The teal formal Helmet	Create a Helmet
8	1	The green kind ware	715	<pre><printer_info></printer_info></pre>	Bowden	2350	443	prepared	medium	The pink what Latex Book	Please design me a L
9	1	The green kind ware	856	<pre><printer_info></printer_info></pre>	Hotend	5610	154	prepared	low	The green last Toaster	Create a Toaster
10	2	The blue selfish war	320	<pre><printer_info></printer_info></pre>	Hotend	5540	[null]	[null]	[null]	[null]	[null]
11	2	The blue selfish war	350	<pre><printer_info></printer_info></pre>	Bowden	4360	533	ready to prepare	high	The maroon unable Sma	Make a Smartphone
12	2	The blue selfish war	350	<pre><printer_info></printer_info></pre>	Bowden	4360	668	prepared	very low	The teal emergency Dog	Please design me a
13	2	The blue selfish war	350	<pre><printer_info></printer_info></pre>	Bowden	4360	914	cancelled	low	The olive plastic Hoover	Create a Hoover
14	2	The blue selfish war	476	<pre><printer_info></printer_info></pre>	Bowden	3130	557	finished	high	The indigo independent	I would like you to d
15	2	The blue selfish war	476	<pre><printer_info></printer_info></pre>	Bowden	3130	938	almost finished	high	The green female Comp	Please design me a
16	2	The blue selfish war	492	<pre><printer_info></printer_info></pre>	Bowden	3010	22	prepared	low	The olive positive Latex	Create a Latex Book
17	2	The blue selfish war	504	<pre><printer_info></printer_info></pre>	Hotend	4730	965	prepared	very low	The navy confident Clock	Please design me a
18	2	The blue selfish war	523	<pre><printer_info></printer_info></pre>	Hotend	5240	171	prepared	very low	The green kind Cable	I would like you to d
19	2	The blue selfish war	523	<pre><printer_info></printer_info></pre>	Hotend	5240	245	prepared	very high	The brown dead Monitor	Make a Monitor

#### **XMLSQL**

```
select xmlelement (name root, (
    select xmlagg(xml) from (
       select xmlelement (name warehouse, xmlattributes (ware.warehouse_id as warehouse_id, ware.country as country),
           xmlforest(ware.warehouse_name as warehousename, ware.gla, ware.vkfl),
           xmlelement (name printers, (
               select xmlagg(
                   xmlelement(name printer, xmlattributes(printer_id as printer_id),
                       printer_info,
                                      -the xml column
                       xmlforest(extruder_type as extruder_type, price),
                       xmlelement(name printed_plans, (
                           select xmlagg(
                              xmlelement(name plan, xmlattributes(plan_id as plan_id, status, priority),
    xmlforest(plan.endproduct_name, plan.basic_instruction)
                           ) from plan where plan.printer id = printer.printer id and plan.printer warehouse id =
                           printer.warehouse id
                       ))
               ) from printer where printer.warehouse id = ware.warehouse id)
       ) as xml from warehouse ware where ware.warehouse_id<100 order by ware.warehouse_id
));
<root>
  <warehouse warehouse id="1" country="Austria">
   <warehousename>The green kind warehouse</warehousename>
   <gla>3600</gla>
   <printers>
     <printer printer_id="715">
       <printer_info>
         <name>UBIX Corp. hard-working 16</name>
         <weight>80</weight>
         <measurements>
           <pri><print_width>84</print_width>
           <pri><print depth>56</print depth>
           <pri><print height>40</print height>
         </measurements>
       </printer info>
       <extruder_type>Bowden</extruder_type>
       <price>2350</price>
       <printed_plans>
```

```
<plan plan_id="224" status="working" priority="high">
                <endproduct_name>The teal formal Helmet</endproduct_name>
                <basic_instruction>Create a Helmet</basic_instruction>
              </plan>
              <plan plan_id="443" status="prepared" priority="medium">
                <endproduct_name>The pink what Latex Book</endproduct_name>
                <basic instruction>Please design me a Latex Book</basic instruction>
              </plan>
             </printed_plans>
           </printer>
           <printer printer id="856">
             <printer_info>
              <name>Brother flirtatious 3</name>
              <weight>100</weight>
              <measurements>
                <pri><print width>35</print width>
                <pri><print_depth>70</print_depth>
                <print_height>20</print_height>
              </measurements>
             </printer info>
             <extruder type>Hotend</extruder type>
             <price>5610</price>
             <printed_plans>
              <plan plan id="154" status="prepared" priority="low">
                <endproduct_name>The green last Toaster</endproduct_name>
                <basic_instruction>Create a Toaster</basic_instruction>
              </plan>
             </printed_plans>
           </printer>
          </printers>
        </warehouse>
</root>
```

#### SQL

```
select a.artist_id, a.first_name, a.last_name, plan.plan_id, plan.endproduct_name, plan.basic_instruction, w.first_name
, w.last_name
    from artist a
        left join plan on a.artist_id = plan.artist_id
        left join worker w on plan.worker_svnr = w.svnr
    where a.artist_id<100
    order by a.artist_id;</pre>
```

4	artist_id integer	first_name character varying	last_name character varying	plan_id integer	status character varying	priority character varying	endproduct_name character varying	basic_instruction character varying	svnr bigint	first_name character varying	last_name character varying
1	1	Jordan	Rhodes	356	almost finished	very low	The cyan terrible Box	Please design me a	01261178	Ann	Gates
2	2	Hannah	Leonard	[null]	[null]	[null]	[null]	[null]	[null]	[null]	[null]
3	3	Joan	King	[null]	[null]	[null]	[null]	[null]	[null]	[null]	[null]
4	4	Diane	Beard	301	cancelled	very low	The olive suspicious	I would like you to d	00261181	Judy	Dixon
5	4	Diane	Beard	908	ready to prepare	low	The lime strange US	Create a USB Stick	92261196	Margaret	Galloway
6	5	Natalie	Logan	355	prepared	very low	The cyan major Chips	Please design me a	78211183	Kathleen	Pickett
7	5	Natalie	Logan	844	prepared	high	The green more We	Create a Webcam	94181096	Ruth	Foreman
8	6	Kenneth	Shields	[null]	[null]	[null]	[null]	[null]	[null]	[null]	[null]
9	7	Olivia	Miles	415	working	very low	The cyan dry Hoover	Make a Hoover	92211189	Sharon	Huff
10	8	Frank	King	782	working	high	The olive over Bag	Make a Bag	03231182	Karen	Lindsey
11	9	Christina	Lawson	[null]	[null]	[null]	[null]	[null]	[null]	[null]	[null]
12	10	Carl	Shields	110	almost finished	very low	The orange emerge	Make a Box	25111192	Marilyn	Benjamin
13	10	Carl	Shields	378	prepared	low	The cyan thick Latex	Make a Latex Book	86151077	Shirley	Strickland
14	10	Carl	Shields	490	cancelled	high	The orange new Key	Create a Keyboard	11211273	Donna	Spencer
15	10	Carl	Shields	672	prepared	very low	The tan incident Wal	Please design me a	72191078	Samuel	Acosta
16	11	Elizabeth	Tyler	417	prepared	very low	The white leather US	Make a USB Stick	29131291	Barbara	Anthony
17	12	Jeremy	Walter	233	almost finished	very low	The silver good Clock	Create a Clock	62201098	Alexander	Melendez
18	12	Jeremy	Walter	619	cancelled	very low	The olive decent Sm	Please design me a S	76261095	Natalie	Mcmillan
19	12	Jeremy	Walter	705	prepared	low	The cyan economy C	I would like you to d	53271084	Joyce	Mcmillan

#### **XMLSQL**

```
select xmlelement (name root, (
   select xmlagg(xml) from (
       select xmlelement(name artist, xmlattributes(artist.artist_id as artist_id),
           xmlforest(artist.first_name, last_name),
           xmlelement (name plans, (
              select xmlagg(
                  xmlelement (name plan, xmlattributes (plan_id as plan_id, status, priority),
                      xmlforest(plan.endproduct_name, plan.basic_instruction),
                      (select xmlelement(name involved_worker, xmlattributes(svnr as svnr, entry_date as entrydate,
                      unique feature),
                         xmlforest(worker.first_name, worker.last_name)
                      ) from worker where worker.svnr = plan.worker_svnr
              ) from plan where plan.artist id = artist.artist id)
       ) as xml from artist where artist_id<100 order by artist.artist_id
   ) as tab
<root>
 <artist artist_id="1">
   <first name>Jordan</first name>
   <last_name>Rhodes</last_name>
   <plans>
     <plan plan_id="356" status="almost finished" priority="very low">
       <endproduct_name>The cyan terrible Box</endproduct_name>
       <br/>
<br/>
<br/>
dasic instruction>Please design me a Box</basic instruction>
       <involved_worker svnr="5501261178" entrydate="2013-08-18" unique_feature="self-confident">
        <first_name>Ann/first_name>
        <last_name>Gates/last_name>
       </involved_worker>
     </plan>
   </plans>
 </artist>
 <artist artist_id="2">
   <first name>Hannah</first name>
   <last name>Leonard</last name>
   <plans/>
```

```
</artist>
<artist artist_id="3">
<first_name>Joan</first_name>
<last_name>King</last_name>
<plans/>
</artist>
</root>
```

#### SQL

```
select w.svnr, w.entry_date, w.unique_feature, w.first_name, w.last_name, w.nickname, plan.plan_id, plan.
endproduct_name, s.item_id, s.item_info, s.due_date, s.list_entry_date, s.is_finished
                 from worker w
                                 left join plan on w.svnr = plan.worker_svnr
                                  left join shopping_item s on s.worker_svnr = w.svnr
                 order by w.svnr limit 100;
      synr entry_date unique_feature first_name first_name nickname nickname plan_id status priority endproduct_name item_id is_finished item_info due_date litem_info due_date litem_info due_date character varying character varying character varying character varying integer character varying character varying integer character varying char
        1001201187 2017-04-02 moody Christopher
1001201187 2017-04-02 moody Christopher
                                                                                                                                        Washington
Washington
                                                                                                                                                                                                                                                                                                                                                                                                            <item_info... 2019-06-01 2019-03-27</pre>

<item_info... 2019-07-17 2019-03-27</td>

                                                                                                                                       | Gamble | Blind Joe Reynolds | [mill] | Gamer | Cow Cov Devenport | [mill] | [mill] | [mill] | [mill] | [mill] | 250 | false
          1001221180 2015-10-17
                                                                                                   Nicholas
         1004121294 2016-05-14 ambitious Carolyn
                                                                                                                                                                                                                                                                                                                                                                                                            <tem_info... 2019-05-25 2019-03-27
           1016111279 2014-11-01

        Villarreal
        Blind Mississppi Mo...
        709 ready to prepare
        low
        The tan ordinary Ho...
        959 false

        Everett
        Lead Belly
        358 working
        very low
        The magenta few Ult...
        399 false

           1021191092 2018-05-10
                                                                                                                                                                                                                                                                                                                                                                                                             <tem_info... 2019-07-11 2019-03-27
                                                                                                                                                                                                                                                                                                                                                                                                            <te><item_info... 2019-05-09 2019-03-27</ti>
            1024101193 2018-02-13
                                                                                                                                                                                                                                                                                                                         The magenta few Ult...
                                                                                                                                                                                                                                                                                                                                                                           931 false
                                                                                                                                                                                                                                                                                                                                                                                                             <tem_info... 2019-05-19 2019-03-27
  11 1024101193 2018-02-13
                                                                                                                                                                                                                                                                                                                                                                           399 false
                                                                                                                                                                                                                                                                                                                                                                                                             <te>item_info... 2019-05-09 2019-03-27
                                                                                                                                                                                                                                 393 working
```

370 ready to prepare

Utile Brother Montg... 489 cancelled very low

Junior Wells 291 ready to prepare medium

512 finished low

The purple economy...

The blue nasty Spoon

The brown amazing ...

[null]
The lime unique Lamp

936 false

982 false

<tem\_info... 2019-07-09 2019-03-27

<item info... 2019-07-17 2019-03-27

<tem\_info... 2019-06-13 2019-03-27

<te><item\_info... 2019-06-13 2019-03-27</ti>

Everett

Richardson

Lead Belly

Pink Anderson

#### **XMLSQL**

13 1024101193 2018-02-13

15 1025131095 2018-04-25

19 1056141294 2018-06-04

1025131095 2018-04-25 crazy 1040231083 2013-03-21 weird

1040231083 2013-03-21 weird 1049231272 2015-01-25 naive

```
select xmlelement(name root, (
    select xmlagg(xml) from (
        select xmlelement (name worker,
            xmlattributes(svnr as svnr, entry_date as entrydate, unique_feature as unique_feature),
            xmlforest(
               first name as first name,
               last name as last name,
               nickname as nickname),
            xmlelement (name plans, (
               select xmlagg(
                   xmlelement (name plan, xmlattributes (plan_id as plan_id, status, priority),
                       xmlelement(name endproduct_name, plan.endproduct_name)
               ) from plan where plan.worker svnr = worker.svnr)
            xmlelement (name shopping items, (
               select xmlagg(
                   xmlelement (name item,
                       xmlattributes(item_id as item_id, is_finished as is_finished),
                       item info, -- the xml column
                           due_date as due_date,
                           list_entry_date as list_entry_date
                 from shopping_item where shopping_item.worker_svnr = worker.svnr)
        ) as xml from worker order by worker.svnr limit 100
));
 <worker svnr="1001201187" entrydate="2017-04-02" unique_feature="moody">
   <first name>Christopher</first name>
   <last name>Washington</last name>
   <nickname> Piano Red</nickname>
   <plans>
    <plan plan_id="196" status="ready to prepare" priority="very high">
      <endproduct_name>The red wine Monitor</endproduct_name>
    </plan>
   </plans>
   <shopping items>
    <item item id="637" is finished="false">
      <item info>
       <busy
         <seller_suggestion>Etsy</seller_suggestion>
```

```
<name>silver Wallet</name>
       </buying_info>
       <additional_info>Whenever there is a problem... SOLVE IT!</additional_info>
      </item_info>
      <due_date>2019-06-01</due_date>
      <list_entry_date>2019-03-27</list_entry_date>
    </item>
    <item item_id="885" is_finished="false">
      <item_info>
       <busy><br/>buying_info></br>
         <seller_suggestion>Kohls</seller_suggestion>
         <name>orange CD Elton John</name>
       </buying_info>
       <additional_info>It should be fancy.</additional_info>
      </item_info>
      <due_date>2019-07-17</due_date>
     <list_entry_date>2019-03-27</list_entry_date>
    </item>
  </shopping_items>
 </worker>
</root>
```