

Assignment 3a – Extraction

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 too 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.

Query 1

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
from worker w
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;
```

	svnr	entry_date	unique_feature	first_name	last_name	nickname	warehouse_id	warehouse_name	printer_id	printer_info	extruder_type	price
7	100120187	02.04.2017	moody	Christopher	Washington	Piano Red	15	The cyan carefree warehouse	191	<printer_info><name>TVS Electronics open-minded 23</name></printer_info></td><weight>20</weight></td><measurements><print_width>69</print_width></td><print_depth>106</print_depth></td><print_height>13</print_height></td></measurements></td><extruder_type>Hotend</extruder_type></td><price>4080</price></td>		
8	100120187	02.04.2017	moody	Christopher	Washington	Piano Red	15	The cyan carefree warehouse	200	<printer_info><name>Compuprint nuts 24</name></printer_info></td><weight>60</weight></td><measurements><print_width>84</print_width></td><print_depth>77</print_depth></td><print_height>38</print_height></td></measurements></td><extruder_type>Direct</extruder_type></td><price>3160</price></td>		
9	100120187	02.04.2017	moody	Christopher	Washington	Piano Red	15	The cyan carefree warehouse	217	<printer_info><name>Digital Equipment Corporation generous 43</name></printer_info></td><weight>40</weight></td><measurements><print_width>44</print_width></td><print_depth>75</print_depth></td><print_height>12</print_height></td></measurements></td><extruder_type>Direct</extruder_type></td><price>4150</price></td>		
10	100120187	02.04.2017	moody	Christopher	Washington	Piano Red	15	The cyan carefree warehouse	282	<printer_info><name>Datasouth cautious 6</name></printer_info></td><weight>20</weight></td><measurements><print_width>105</print_width></td><print_depth>105</print_depth></td><print_height>105</print_height></td></measurements></td><extruder_type>Direct</extruder_type></td><price>1670</price></td>		
11	100120187	02.04.2017	moody	Christopher	Washington	Piano Red	15	The cyan carefree warehouse	378	<printer_info><name>Fujiitsu brave 80</name></printer_info></td><weight>100</weight></td><measurements><print_width>94</print_width></td><print_depth>94</print_depth></td><print_height>94</print_height></td></measurements></td><extruder_type>Bowden</extruder_type></td><price>1900</price></td>		
12	100120187	02.04.2017	moody	Christopher	Washington	Piano Red	15	The cyan carefree warehouse	447	<printer_info><name>Canon conventional 38</name></printer_info></td><weight>60</weight></td><measurements><print_width>52</print_width></td><print_depth>52</print_depth></td><print_height>52</print_height></td></measurements></td><extruder_type>Bowden</extruder_type></td><price>5960</price></td>		
13	100120187	02.04.2017	moody	Christopher	Washington	Piano Red	15	The cyan carefree warehouse	474	<printer_info><name>Comtec sensitive 37</name></printer_info></td><weight>60</weight></td><measurements><print_width>50</print_width></td><print_depth>50</print_depth></td><print_height>50</print_height></td></measurements></td><extruder_type>Hotend</extruder_type></td><price>4980</price></td>		
14	100120187	02.04.2017	moody	Christopher	Washington	Piano Red	15	The cyan carefree warehouse	600	<printer_info><name>TVS Electronics lazy 26</name></printer_info></td><weight>80</weight></td><measurements><print_width>71</print_width></td><print_depth>71</print_depth></td><print_height>71</print_height></td></measurements></td><extruder_type>Hotend</extruder_type></td><price>710</price></td>		
15	100120187	02.04.2017	moody	Christopher	Washington	Piano Red	15	The cyan carefree warehouse	652	<printer_info><name>Fujiitsu carefree 7</name></printer_info></td><weight>40</weight></td><measurements><print_width>100</print_width></td><print_depth>100</print_depth></td><print_height>100</print_height></td></measurements></td><extruder_type>Bowden</extruder_type></td><price>260</price></td>		
16	100120187	02.04.2017	moody	Christopher	Washington	Piano Red	15	The cyan carefree warehouse	686	<printer_info><name>Nakajima cruel 37</name></printer_info></td><weight>100</weight></td><measurements><print_width>35</print_width></td><print_depth>35</print_depth></td><print_height>35</print_height></td></measurements></td><extruder_type>Hotend</extruder_type></td><price>2410</price></td>		
17	100121860	17.10.2015	very cruel	Nicholas	Gamble	Blind Joe Reynolds	31	The purple brave warehouse	11	<printer_info><name>Bell-Mark boring 7</name></printer_info></td><weight>50</weight></td><measurements><print_width>50</print_width></td><print_depth>50</print_depth></td><print_height>50</print_height></td></measurements></td><extruder_type>Direct</extruder_type></td><price>2240</price></td>		
18	100121860	17.10.2015	very cruel	Nicholas	Gamble	Blind Joe Reynolds	31	The purple brave warehouse	46	<printer_info><name>Kodak cruel 20</name></printer_info></td><weight>40</weight></td><measurements><print_width>37</print_width></td><print_depth>37</print_depth></td><print_height>37</print_height></td></measurements></td><extruder_type>Direct</extruder_type></td><price>1040</price></td>		
19	100121860	17.10.2015	very cruel	Nicholas	Gamble	Blind Joe Reynolds	31	The purple brave warehouse	97	<printer_info><name>Printer System Corporation quarellome 11</name></printer_info></td><weight>30</weight></td><measurements><print_width>30</print_width></td><print_depth>30</print_depth></td><print_height>30</print_height></td></measurements></td><extruder_type>Hotend</extruder_type></td><price>360</price></td>		
20	100121860	17.10.2015	very cruel	Nicholas	Gamble	Blind Joe Reynolds	31	The purple brave warehouse	142	<printer_info><name>Picoh kind 25</name></printer_info></td><weight>40</weight></td><measurements><print_width>37</print_width></td><print_depth>37</print_depth></td><print_height>37</print_height></td></measurements></td><extruder_type>Bowden</extruder_type></td><price>5820</price></td>		
21	100121860	17.10.2015	very cruel	Nicholas	Gamble	Blind Joe Reynolds	31	The purple brave warehouse	169	<printer_info><name>TEC flirtatious 21</name></printer_info></td><weight>20</weight></td><measurements><print_width>65</print_width></td><print_depth>65</print_depth></td><print_height>65</print_height></td></measurements></td><extruder_type>Hotend</extruder_type></td><price>1630</price></td>		
22	100121860	17.10.2015	very cruel	Nicholas	Gamble	Blind Joe Reynolds	31	The purple brave warehouse	301	<printer_info><name>Fujifilm nuts 25</name></printer_info></td><weight>50</weight></td><measurements><print_width>66</print_width></td><print_depth>66</print_depth></td><print_height>66</print_height></td></measurements></td><extruder_type>Direct</extruder_type></td><price>4450</price></td>		
23	100121860	17.10.2015	very cruel	Nicholas	Gamble	Blind Joe Reynolds	31	The purple brave warehouse	551	<printer_info><name>Compress 10 Printers weird 8</name></printer_info></td><weight>30</weight></td><measurements><print_width>84</print_width></td><print_depth>84</print_depth></td><print_height>84</print_height></td></measurements></td><extruder_type>Hotend</extruder_type></td><price>1710</price></td>		
24	100121860	17.10.2015	very cruel	Nicholas	Gamble	Blind Joe Reynolds	31	The purple brave warehouse	554	<printer_info><name>Toshiba cautious 47</name></printer_info></td><weight>40</weight></td><measurements><print_width>85</print_width></td><print_depth>85</print_depth></td><print_height>85</print_height></td></measurements></td><extruder_type>Hotend</extruder_type></td><price>1820</price></td>		
25	100121860	17.10.2015	very cruel	Nicholas	Gamble	Blind Joe Reynolds	31	The purple brave warehouse	680	<printer_info><name>ASK Technology crazy 39</name></printer_info></td><weight>60</weight></td><measurements><print_width>80</print_width></td><print_depth>80</print_depth></td><print_height>80</print_height></td></measurements></td><extruder_type>Direct</extruder_type></td><price>370</price></td>		
26	100121860	17.10.2015	very cruel	Nicholas	Gamble	Blind Joe Reynolds	31	The purple brave warehouse	737	<printer_info><name>Sharp cruel 33</name></printer_info></td><weight>30</weight></td><measurements><print_width>80</print_width></td><print_depth>80</print_depth></td><print_height>80</print_height></td></measurements></td><extruder_type>Hotend</extruder_type></td><price>530</price></td>		

SQLXML

```
select xmlelement(name root, (
select xmlagg(xml) from (
select xmlelement(name worker, xmlattributes(svnr as svnr, entry_date as entrydate, unique_feature),
xmlforest(first_name as first_name, last_name as last_name, nickname),
xmlelement(name warehouse_zugeordnet, xmlattributes(ware.warehouse_id as warehouse_id),
xmlelement(name warehousingname, ware.warehouse_name),
xmlelement(name printers, (
select xmlagg(
xmlelement(name printer, xmlattributes(printer_id as printer_id),
printer_info, --the xml column
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
) as tab
));
```

```
<worker svnr="100120187" entrydate="2017-04-02" unique_feature="moody">
<firstname>Christopher</firstname>
<lastname>Washington</lastname>
<nickname> Piano Red</nickname>
<warehouse_zugeordnet warehouse_id="15">
<warehousingname>The cyan carefree warehouse</warehousingname>
<printers>
<printer printer_id="191">
<printer_info>
<name>TVS Electronics open-minded 23</name>
<weight>20</weight>
<measurements>
<print_width>69</print_width>
<print_depth>106</print_depth>
<print_height>13</print_height>
</measurements>
</printer_info>
<extruder_type>Hotend</extruder_type>
<price>4080</price>
</printer>
<printer printer_id="200">
<printer_info>
<name>Compuprint nuts 24</name>
<weight>60</weight>
<measurements>
<print_width>84</print_width>
<print_depth>77</print_depth>
<print_height>38</print_height>
</measurements>
</printer_info>
<extruder_type>Direct</extruder_type>
<price>3160</price>
</printer>
<printer printer_id="217">
<printer_info>
<name>Digital Equipment Corporation generous 43</name>
<weight>40</weight>
<measurements>
<print_width>44</print_width>
<print_depth>75</print_depth>
<print_height>12</print_height>
```

```

    </measurements>
  </printer_info>
  <extruder_type>Direct</extruder_type>
  <price>4150</price>
</printer>
<printer printer_id="282">
  <printer_info>
    <name>Datasouth cautious 6</name>
    <weight>20</weight>
    <measurements>
      <print_width>105</print_width>
      <print_depth>89</print_depth>
      <print_height>10</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Direct</extruder_type>
  <price>1570</price>
</printer>
<printer printer_id="378">
  <printer_info>
    <name>Fujitsu brave 16</name>
    <weight>100</weight>
    <measurements>
      <print_width>34</print_width>
      <print_depth>90</print_depth>
      <print_height>34</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Bowden</extruder_type>
  <price>1080</price>
</printer>
<printer printer_id="447">
  <printer_info>
    <name>Canon conventional 39</name>
    <weight>60</weight>
    <measurements>
      <print_width>52</print_width>
      <print_depth>103</print_depth>
      <print_height>15</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Bowden</extruder_type>
  <price>5960</price>
</printer>
<printer printer_id="474">
  <printer_info>
    <name>Comtec sensitive 37</name>
    <weight>60</weight>
    <measurements>
      <print_width>50</print_width>
      <print_depth>18</print_depth>
      <print_height>48</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Hotend</extruder_type>
  <price>4980</price>
</printer>
<printer printer_id="600">
  <printer_info>
    <name>TVS Electronics lazy 26</name>
    <weight>80</weight>
    <measurements>
      <print_width>71</print_width>
      <print_depth>102</print_depth>
      <print_height>28</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Hotend</extruder_type>
  <price>710</price>
</printer>
<printer printer_id="652">
  <printer_info>
    <name>Fujitsu carefree 7</name>
    <weight>40</weight>
    <measurements>

```

```

        <print_width>100</print_width>
        <print_depth>77</print_depth>
        <print_height>28</print_height>
    </measurements>
</printer_info>
<extruder_type>Bowden</extruder_type>
<price>280</price>
</printer>
<printer printer_id="886">
    <printer_info>
        <name>Nakajima cruel 37</name>
        <weight>100</weight>
        <measurements>
            <print_width>35</print_width>
            <print_depth>66</print_depth>
            <print_height>12</print_height>
        </measurements>
    </printer_info>
    <extruder_type>Hotend</extruder_type>
    <price>2410</price>
</printer>
</printers>
</warehouse_zugeordnet>
</worker>
<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>
    <printers>
        <printer printer_id="1">
            <printer_info>
                <name>Bell-Mark boring 7</name>
                <weight>50</weight>
                <measurements>
                    <print_width>50</print_width>
                    <print_depth>92</print_depth>
                    <print_height>40</print_height>
                </measurements>
            </printer_info>
            <extruder_type>Direct</extruder_type>
            <price>2240</price>
        </printer>
        <printer printer_id="46">
            <printer_info>
                <name>Kodak cruel 20</name>
                <weight>40</weight>
                <measurements>
                    <print_width>97</print_width>
                    <print_depth>28</print_depth>
                    <print_height>12</print_height>
                </measurements>
            </printer_info>
            <extruder_type>Hotend</extruder_type>
            <price>1040</price>
        </printer>
        <printer printer_id="97">
            <printer_info>
                <name>Printer System Corporation quarrelsome 1</name>
                <weight>30</weight>
                <measurements>
                    <print_width>82</print_width>
                    <print_depth>94</print_depth>
                    <print_height>39</print_height>
                </measurements>
            </printer_info>
            <extruder_type>Hotend</extruder_type>
            <price>980</price>
        </printer>
        <printer printer_id="142">
            <printer_info>
                <name>Ricoh kind 25</name>
                <weight>40</weight>
                <measurements>

```

```

        <print_width>97</print_width>
        <print_depth>48</print_depth>
        <print_height>27</print_height>
    </measurements>
</printer_info>
<extruder_type>Bowden</extruder_type>
<price>5820</price>
</printer>
<printer printer_id="189">
    <printer_info>
        <name>TEC flirtatious 21</name>
        <weight>20</weight>
        <measurements>
            <print_width>65</print_width>
            <print_depth>94</print_depth>
            <print_height>49</print_height>
        </measurements>
    </printer_info>
    <extruder_type>Hotend</extruder_type>
    <price>1630</price>
</printer>
<printer printer_id="301">
    <printer_info>
        <name>Fujifilm nuts 25</name>
        <weight>50</weight>
        <measurements>
            <print_width>66</print_width>
            <print_depth>30</print_depth>
            <print_height>17</print_height>
        </measurements>
    </printer_info>
    <extruder_type>Direct</extruder_type>
    <price>4450</price>
</printer>
<printer printer_id="553">
    <printer_info>
        <name>Compress UV Printers weird 6</name>
        <weight>90</weight>
        <measurements>
            <print_width>84</print_width>
            <print_depth>74</print_depth>
            <print_height>14</print_height>
        </measurements>
    </printer_info>
    <extruder_type>Hotend</extruder_type>
    <price>1710</price>
</printer>
<printer printer_id="554">
    <printer_info>
        <name>Toshiba cautious 47</name>
        <weight>40</weight>
        <measurements>
            <print_width>85</print_width>
            <print_depth>112</print_depth>
            <print_height>14</print_height>
        </measurements>
    </printer_info>
    <extruder_type>Hotend</extruder_type>
    <price>1820</price>
</printer>
<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>
      <print_depth>104</print_depth>
      <print_height>26</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Hotend</extruder_type>
  <price>590</price>
</printer>
<printer printer_id="742">
  <printer_info>
    <name>Ricoh cowardly 26</name>
    <weight>100</weight>
    <measurements>
      <print_width>24</print_width>
      <print_depth>10</print_depth>
      <print_height>31</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Direct</extruder_type>
  <price>5960</price>
</printer>
<printer printer_id="753">
  <printer_info>
    <name>GENICOM shy - introverted 2</name>
    <weight>50</weight>
    <measurements>
      <print_width>26</print_width>
      <print_depth>46</print_depth>
      <print_height>41</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Bowden</extruder_type>
  <price>4440</price>
</printer>
<printer printer_id="977">
  <printer_info>
    <name>Kyocera Mita quarrelsome 39</name>
    <weight>80</weight>
    <measurements>
      <print_width>108</print_width>
      <print_depth>92</print_depth>
      <print_height>36</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Direct</extruder_type>
  <price>3560</price>
</printer>
</printers>
</warehouse_zugeordnet>
</worker>
</root>

```

Query 2

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;
```

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

<root>

```
<warehouse warehouse_id="1" country="Austria">
  <warehousename>The green kind warehouse</warehousename>
  <gla>3600</gla>
  <printers>
    <printer printer_id="9">
      <printer_info>
        <name>Compuprint conventional 44</name>
        <weight>30</weight>
        <measurements>
          <print_width>52</print_width>
          <print_depth>49</print_depth>
          <print_height>48</print_height>
        </measurements>
      </printer_info>
      <extruder_type>Direct</extruder_type>
      <price>3400</price>
      <printed_plans>
```

```

    <plan plan_id="489" status="cancelled" priority="very low">
      <endproduct_name>The blue nasty Spoon</endproduct_name>
      <basic_instruction>Create a Spoon</basic_instruction>
    </plan>
  </printed_plans>
</printer>
<printer printer_id="263">
  <printer_info>
    <name>Versatec self-confident 30</name>
    <weight>100</weight>
    <measurements>
      <print_width>28</print_width>
      <print_depth>62</print_depth>
      <print_height>41</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Direct</extruder_type>
  <price>1270</price>
  <printed_plans>
    <plan plan_id="279" status="finished" priority="low">
      <endproduct_name>The olive wise Hoover</endproduct_name>
      <basic_instruction>Create a Hoover</basic_instruction>
    </plan>
  </printed_plans>
</printer>
<printer printer_id="280">
  <printer_info>
    <name>AMT Datasouth ambitious 50</name>
    <weight>40</weight>
    <measurements>
      <print_width>92</print_width>
      <print_depth>114</print_depth>
      <print_height>30</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Direct</extruder_type>
  <price>3170</price>
  <printed_plans/>
</printer>
<printer printer_id="512">
  <printer_info>
    <name>Heidelberg flirtatious 16</name>
    <weight>50</weight>
    <measurements>
      <print_width>66</print_width>
      <print_depth>110</print_depth>
      <print_height>19</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Hotend</extruder_type>
  <price>2730</price>
  <printed_plans/>
</printer>
<printer printer_id="552">

```



```

<printer_info>
  <name>Kodak conservative 4</name>
  <weight>80</weight>
  <measurements>
    <print_width>29</print_width>
    <print_depth>112</print_depth>
    <print_height>45</print_height>
  </measurements>
</printer_info>
<extruder_type>Direct</extruder_type>
<price>3230</price>
<printed_plans/>
</printer>
<printer printer_id="584">
  <printer_info>
    <name>Benson, Inc. shy - introverted 39</name>
    <weight>100</weight>
    <measurements>
      <print_width>27</print_width>
      <print_depth>99</print_depth>
      <print_height>24</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Direct</extruder_type>
  <price>2730</price>
  <printed_plans>
    <plan plan_id="9" status="working" priority="very low">
      <endproduct_name>The red emergency Clock</endproduct_name>
      <basic_instruction>I would like you to do for me a STL file with Clock</basic_instruction>
    </plan>
  </printed_plans>
</printer>
<printer printer_id="715">
  <printer_info>
    <name>UBIX Corp. hard-working 16</name>
    <weight>80</weight>
    <measurements>
      <print_width>84</print_width>
      <print_depth>56</print_depth>
      <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>
      <print_width>35</print_width>
      <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>
<warehouse warehouse_id="2" country="Austria">
  <warehousename>The blue selfish warehouse</warehousename>
  <gla>8300</gla>
  <printers>
    <printer printer_id="320">
      <printer_info>
        <name>Siemens Nixdorf flirtatious 48</name>
        <weight>60</weight>
        <measurements>
          <print_width>72</print_width>
          <print_depth>15</print_depth>
          <print_height>36</print_height>
        </measurements>
      </printer_info>
      <extruder_type>Hotend</extruder_type>
      <price>5540</price>
      <printed_plans/>
    </printer>
    <printer printer_id="350">
      <printer_info>
        <name>Tektronix conceited 3</name>
        <weight>10</weight>
        <measurements>
          <print_width>60</print_width>
          <print_depth>119</print_depth>
          <print_height>21</print_height>
        </measurements>
      </printer_info>
      <extruder_type>Bowden</extruder_type>
      <price>4360</price>
      <printed_plans>
        <plan plan_id="533" status="ready to prepare" priority="high">

```

```

    <endproduct_name>The maroon unable Smartphone</endproduct_name>
    <basic_instruction>Make a Smartphone</basic_instruction>
  </plan>
  <plan plan_id="668" status="prepared" priority="very low">
    <endproduct_name>The teal emergency Dog</endproduct_name>
    <basic_instruction>Please design me a Dog</basic_instruction>
  </plan>
  <plan plan_id="914" status="cancelled" priority="low">
    <endproduct_name>The olive plastic Hoover</endproduct_name>
    <basic_instruction>Create a Hoover</basic_instruction>
  </plan>
</printed_plans>
</printer>
<printer printer_id="476">
  <printer_info>
    <name>Océ shy - introverted 9</name>
    <weight>80</weight>
    <measurements>
      <print_width>106</print_width>
      <print_depth>96</print_depth>
      <print_height>48</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Bowden</extruder_type>
  <price>3130</price>
  <printed_plans>
    <plan plan_id="557" status="finished" priority="high">
      <endproduct_name>The indigo independent Wallet</endproduct_name>
      <basic_instruction>I would like you to do for me a STL file with Wallet</basic_instruction>
    </plan>
    <plan plan_id="938" status="almost finished" priority="high">
      <endproduct_name>The green female Computer</endproduct_name>
      <basic_instruction>Please design me a Computer</basic_instruction>
    </plan>
  </printed_plans>
</printer>
<printer printer_id="492">
  <printer_info>
    <name>InfoPrint open-minded 35</name>
    <weight>80</weight>
    <measurements>
      <print_width>61</print_width>
      <print_depth>81</print_depth>
      <print_height>31</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Bowden</extruder_type>
  <price>3010</price>
  <printed_plans>
    <plan plan_id="22" status="prepared" priority="low">
      <endproduct_name>The olive positive Latex Book</endproduct_name>
      <basic_instruction>Create a Latex Book</basic_instruction>
    </plan>
  </printed_plans>

```

```

</printer>
<printer printer_id="504">
  <printer_info>
    <name>Nipson nuts 33</name>
    <weight>20</weight>
    <measurements>
      <print_width>60</print_width>
      <print_depth>103</print_depth>
      <print_height>11</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Hotend</extruder_type>
  <price>4730</price>
  <printed_plans>
    <plan plan_id="965" status="prepared" priority="very low">
      <endproduct_name>The navy confident Clock</endproduct_name>
      <basic_instruction>Please design me a Clock</basic_instruction>
    </plan>
  </printed_plans>
</printer>
<printer printer_id="523">
  <printer_info>
    <name>Nakajima dull 23</name>
    <weight>20</weight>
    <measurements>
      <print_width>14</print_width>
      <print_depth>97</print_depth>
      <print_height>27</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Hotend</extruder_type>
  <price>5240</price>
  <printed_plans>
    <plan plan_id="171" status="prepared" priority="very low">
      <endproduct_name>The green kind Cable</endproduct_name>
      <basic_instruction>I would like you to do for me a STL file with Cable</basic_instruction>
    </plan>
    <plan plan_id="245" status="prepared" priority="very high">
      <endproduct_name>The brown dead Monitor</endproduct_name>
      <basic_instruction>Make a Monitor</basic_instruction>
    </plan>
    <plan plan_id="757" status="working" priority="very high">
      <endproduct_name>The green sharp Ultrasonic Sensors for Mbot</endproduct_name>
      <basic_instruction>Create a Ultrasonic Sensors for Mbot</basic_instruction>
    </plan>
    <plan plan_id="880" status="working" priority="high">
      <endproduct_name>The lime budget Latex Book</endproduct_name>
      <basic_instruction>I would like you to do for me a STL file with Latex Book</basic_instruction>
    </plan>
  </printed_plans>
</printer>
<printer printer_id="607">
  <printer_info>
    <name>Copal flirtatious 45</name>

```

```

    <weight>80</weight>
    <measurements>
      <print_width>70</print_width>
      <print_depth>46</print_depth>
      <print_height>37</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Bowden</extruder_type>
  <price>1660</price>
  <printed_plans>
    <plan plan_id="814" status="prepared" priority="medium">
      <endproduct_name>The violet entire Printer</endproduct_name>
      <basic_instruction>Please design me a Printer</basic_instruction>
    </plan>
  </printed_plans>
</printer>
<printer printer_id="684">
  <printer_info>
    <name>Memorex Telex generous 9</name>
    <weight>90</weight>
    <measurements>
      <print_width>82</print_width>
      <print_depth>60</print_depth>
      <print_height>49</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Bowden</extruder_type>
  <price>1270</price>
  <printed_plans/>
</printer>
<printer printer_id="987">
  <printer_info>
    <name>TVS Electronics cantankerous 13</name>
    <weight>80</weight>
    <measurements>
      <print_width>70</print_width>
      <print_depth>34</print_depth>
      <print_height>19</print_height>
    </measurements>
  </printer_info>
  <extruder_type>Direct</extruder_type>
  <price>480</price>
  <printed_plans>
    <plan plan_id="550" status="cancelled" priority="very high">
      <endproduct_name>The red political Wallet</endproduct_name>
      <basic_instruction>Make a Wallet</basic_instruction>
    </plan>
  </printed_plans>
</printer>
</printers>
</warehouse>
</root>

```

Query 3

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_svn = w.svn
 where a.artist_id<100
 order by a.artist_id;
```

	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	svn 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(svn as svn, entry_date as entrydate,
              unique_feature),
              xmlforest(worker.first_name, worker.last_name)
            )from worker where worker.svn = plan.worker_svn
          )
        )
      ) 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>
        <basic_instruction>Please design me a Box</basic_instruction>
        <involved_worker svn="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>
</root>
```

```

</artist>
<artist artist_id="3">
  <first_name>Joan</first_name>
  <last_name>King</last_name>
  <plans/>
</artist>
<artist artist_id="4">
  <first_name>Diane</first_name>
  <last_name>Beard</last_name>
  <plans>
    <plan plan_id="301" status="cancelled" priority="very low">
      <endproduct_name>The olive suspicious Smartphone</endproduct_name>
      <basic_instruction>I would like you to do for me a STL file with Smartphone</basic_instruction>
      <involved_worker svnr="1200261181" entrydate="2016-06-09" unique_feature="dull">
        <first_name>Judy</first_name>
        <last_name>Dixon</last_name>
      </involved_worker>
    </plan>
    <plan plan_id="908" status="ready to prepare" priority="low">
      <endproduct_name>The lime strange USB Stick</endproduct_name>
      <basic_instruction>Create a USB Stick</basic_instruction>
      <involved_worker svnr="6592261196" entrydate="2014-01-14" unique_feature="cautious">
        <first_name>Margaret</first_name>
        <last_name>Galloway</last_name>
      </involved_worker>
    </plan>
  </plans>
</artist>
<artist artist_id="5">
  <first_name>Natalie</first_name>
  <last_name>Logan</last_name>
  <plans>
    <plan plan_id="355" status="prepared" priority="very low">
      <endproduct_name>The cyan major Chips</endproduct_name>
      <basic_instruction>Please design me a Chips</basic_instruction>
      <involved_worker svnr="7678211183" entrydate="2015-08-17" unique_feature="sensible">
        <first_name>Kathleen</first_name>
        <last_name>Pickett</last_name>
      </involved_worker>
    </plan>
    <plan plan_id="844" status="prepared" priority="high">
      <endproduct_name>The green more Webcam</endproduct_name>
      <basic_instruction>Create a Webcam</basic_instruction>
      <involved_worker svnr="8394181096" entrydate="2018-11-05" unique_feature="moody">
        <first_name>Ruth</first_name>
        <last_name>Foreman</last_name>
      </involved_worker>
    </plan>
  </plans>
</artist>
<artist artist_id="6">
  <first_name>Kenneth</first_name>
  <last_name>Shields</last_name>
  <plans/>

```

```

</artist>
<artist artist_id="7">
  <first_name>Olivia</first_name>
  <last_name>Miles</last_name>
  <plans>
    <plan plan_id="415" status="working" priority="very low">
      <endproduct_name>The cyan dry Hoover</endproduct_name>
      <basic_instruction>Make a Hoover</basic_instruction>
      <involved_worker svnr="4092211189" entrydate="2016-01-18" unique_feature="trustworthy">
        <first_name>Sharon</first_name>
        <last_name>Huff</last_name>
      </involved_worker>
    </plan>
  </plans>
</artist>
<artist artist_id="8">
  <first_name>Frank</first_name>
  <last_name>King</last_name>
  <plans>
    <plan plan_id="782" status="working" priority="high">
      <endproduct_name>The olive over Bag</endproduct_name>
      <basic_instruction>Make a Bag</basic_instruction>
      <involved_worker svnr="3503231182" entrydate="2014-10-02" unique_feature="selfish">
        <first_name>Karen</first_name>
        <last_name>Lindsey</last_name>
      </involved_worker>
    </plan>
  </plans>
</artist>
<artist artist_id="9">
  <first_name>Christina</first_name>
  <last_name>Lawson</last_name>
  <plans/>
</artist>
<artist artist_id="10">
  <first_name>Carl</first_name>
  <last_name>Shields</last_name>
  <plans>
    <plan plan_id="110" status="almost finished" priority="very low">
      <endproduct_name>The orange emergency Box</endproduct_name>
      <basic_instruction>Make a Box</basic_instruction>
      <involved_worker svnr="4725111192" entrydate="2016-06-08" unique_feature="ambitious">
        <first_name>Marilyn</first_name>
        <last_name>Benjamin</last_name>
      </involved_worker>
    </plan>
    <plan plan_id="378" status="prepared" priority="low">
      <endproduct_name>The cyan thick Latex Book</endproduct_name>
      <basic_instruction>Make a Latex Book</basic_instruction>
      <involved_worker svnr="4686151077" entrydate="2016-07-24" unique_feature="sensible">
        <first_name>Shirley</first_name>
        <last_name>Strickland</last_name>
      </involved_worker>
    </plan>
  </plans>

```



```

<plan plan_id="490" status="cancelled" priority="high">
  <endproduct_name>The orange new Keyboard</endproduct_name>
  <basic_instruction>Create a Keyboard</basic_instruction>
  <involved_worker svnr="8211211273" entrydate="2014-02-07" unique_feature="cheerful">
    <first_name>Donna</first_name>
    <last_name>Spencer</last_name>
  </involved_worker>
</plan>
<plan plan_id="672" status="prepared" priority="very low">
  <endproduct_name>The tan incident Wallet</endproduct_name>
  <basic_instruction>Please design me a Wallet</basic_instruction>
  <involved_worker svnr="8872191078" entrydate="2015-07-13" unique_feature="strict">
    <first_name>Samuel</first_name>
    <last_name>Acosta</last_name>
  </involved_worker>
</plan>
</plans>
</artist>
<artist artist_id="11">
  <first_name>Elizabeth</first_name>
  <last_name>Tyler</last_name>
  <plans>
    <plan plan_id="417" status="prepared" priority="very low">
      <endproduct_name>The white leather USB Stick</endproduct_name>
      <basic_instruction>Make a USB Stick</basic_instruction>
      <involved_worker svnr="3529131291" entrydate="2014-09-05" unique_feature="big-headed">
        <first_name>Barbara</first_name>
        <last_name>Anthony</last_name>
      </involved_worker>
    </plan>
  </plans>
</artist>
<artist artist_id="12">
  <first_name>Jeremy</first_name>
  <last_name>Walter</last_name>
  <plans>
    <plan plan_id="233" status="almost finished" priority="very low">
      <endproduct_name>The silver good Clock</endproduct_name>
      <basic_instruction>Create a Clock</basic_instruction>
      <involved_worker svnr="3262201098" entrydate="2013-04-14" unique_feature="flirtatious">
        <first_name>Alexander</first_name>
        <last_name>Melendez</last_name>
      </involved_worker>
    </plan>
    <plan plan_id="619" status="cancelled" priority="very low">
      <endproduct_name>The olive decent Smartphone</endproduct_name>
      <basic_instruction>Please design me a Smartphone</basic_instruction>
      <involved_worker svnr="9776261095" entrydate="2016-05-03" unique_feature="polite">
        <first_name>Natalie</first_name>
        <last_name>Mcmillan</last_name>
      </involved_worker>
    </plan>
    <plan plan_id="705" status="prepared" priority="low">
      <endproduct_name>The cyan economy Clock</endproduct_name>

```

```
<basic_instruction>I would like you to do for me a STL file with Clock</basic_instruction>
<involved_worker svnr="8153271084" entrydate="2017-11-02" unique_feature="very cruel">
  <first_name>Joyce</first_name>
  <last_name>Mcmillan</last_name>
</involved_worker>
</plan>
<plan plan_id="714" status="cancelled" priority="medium">
  <endproduct_name>The red resident Chips</endproduct_name>
  <basic_instruction>I would like you to do for me a STL file with Chips</basic_instruction>
  <involved_worker svnr="6290221080" entrydate="2015-11-08" unique_feature="kind">
    <first_name>Danielle</first_name>
    <last_name>Keller</last_name>
  </involved_worker>
</plan>
</plans>
</artist>
</root>
```

Query 4

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_svn
left join shopping_item s on s.worker_svn = w.svnr
order by w.svnr limit 100;
```

	svnr bigint	entry_date date	unique_feature character varying	first_name character varying	last_name character varying	nickname character varying	plan_id integer	status character varying	priority character varying	endproduct_name character varying	item_id integer	is_finished boolean	item_info xml	due_date date	list_entry_date date
1	1001201187	2017-04-02	moody	Christopher	Washington	Piano Red	196	ready to prepare	very high	The red wine Monitor	637	false	<item_info...	2019-06-01	2019-03-27
2	1001201187	2017-04-02	moody	Christopher	Washington	Piano Red	196	ready to prepare	very high	The red wine Monitor	885	false	<item_info...	2019-07-17	2019-03-27
3	1001221180	2015-10-17	very cruel	Nicholas	Gamble	Blind Joe Reynolds	[null]	[null]	[null]	[null]	[null]	[null]	[null]	[null]	[null]
4	1004121294	2016-05-14	ambitious	Carolyn	Garner	Cow Cow Davenport	[null]	[null]	[null]	[null]	250	false	<item_info...	2019-05-25	2019-03-27
5	1016111279	2014-11-01	proud	William	Barnes	Hound Dog Taylor	[null]	[null]	[null]	[null]	[null]	[null]	[null]	[null]	[null]
6	1021191092	2018-05-10	moody	Kelly	Villarreal	Blind Mississippi Mo...	709	ready to prepare	low	The tan ordinary Ho...	162	false	<item_info...	2019-07-17	2019-03-27
7	1021191092	2018-05-10	moody	Kelly	Villarreal	Blind Mississippi Mo...	709	ready to prepare	low	The tan ordinary Ho...	959	false	<item_info...	2019-07-11	2019-03-27
8	1024101193	2018-02-13	conservative	Roger	Everett	Lead Belly	358	working	very low	The magenta few Ult...	399	false	<item_info...	2019-05-09	2019-03-27
9	1024101193	2018-02-13	conservative	Roger	Everett	Lead Belly	358	working	very low	The magenta few Ult...	931	false	<item_info...	2019-05-19	2019-03-27
10	1024101193	2018-02-13	conservative	Roger	Everett	Lead Belly	358	working	very low	The magenta few Ult...	936	false	<item_info...	2019-07-09	2019-03-27
11	1024101193	2018-02-13	conservative	Roger	Everett	Lead Belly	393	working	low	The purple economy...	399	false	<item_info...	2019-05-09	2019-03-27
12	1024101193	2018-02-13	conservative	Roger	Everett	Lead Belly	393	working	low	The purple economy...	931	false	<item_info...	2019-05-19	2019-03-27
13	1024101193	2018-02-13	conservative	Roger	Everett	Lead Belly	393	working	low	The purple economy...	936	false	<item_info...	2019-07-09	2019-03-27
14	1024191282	2013-10-19	cautious	Katherine	Galloway	Catfish Keith	[null]	[null]	[null]	[null]	[null]	[null]	[null]	[null]	[null]
15	1025131095	2018-04-25	crazy	Raymond	Richardson	Pink Anderson	370	ready to prepare	medium	The lime unique Lamp	85	false	<item_info...	2019-07-17	2019-03-27
16	1040231083	2013-03-21	weird	Larry	Pratt	Little Brother Montg...	289	prepared	very high	The teal clean Cable	982	false	<item_info...	2019-06-13	2019-03-27
17	1040231083	2013-03-21	weird	Larry	Pratt	Little Brother Montg...	489	cancelled	very low	The blue nassy Spoon	982	false	<item_info...	2019-06-13	2019-03-27
18	1049231272	2015-01-25	naive	Alexis	Mcdowell	Junior Wells	291	ready to prepare	medium	The olive east Lamp	[null]	[null]	[null]	[null]	[null]
19	1056141294	2018-06-04	sensitive	Theresa	Grimes	Big Macco Merriwe...	512	finished	low	The brown amazing ...	[null]	[null]	[null]	[null]	[null]

XMLSQL

```
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_svn = 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
          xmlforest(
            due_date as due_date,
            list_entry_date as list_entry_date
          )
        )
      ) from shopping_item where shopping_item.worker_svn = worker.svnr)
    )
  ) as xml from worker order by worker.svnr limit 100
) as tab
));
```

<root>

```
<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>
        <buying_info>
          <seller_suggestion>Etsy</seller_suggestion>
        </buying_info>
      </item_info>
    </item>
  </shopping_items>
</worker>
```

```

        <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>
        <buying_info>
            <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>
<worker svnr="1001221180" entrydate="2015-10-17" unique_feature="very cruel">
    <first_name>Nicholas</first_name>
    <last_name>Gamble</last_name>
    <nickname> Blind Joe Reynolds</nickname>
    <plans/>
    <shopping_items/>
</worker>
<worker svnr="1004121294" entrydate="2016-05-14" unique_feature="ambitious">
    <first_name>Carolyn</first_name>
    <last_name>Garner</last_name>
    <nickname> Cow Cow Davenport</nickname>
    <plans/>
    <shopping_items>
        <item item_id="250" is_finished="false">
            <item_info>
                <buying_info>
                    <seller_suggestion>Sears</seller_suggestion>
                    <name>blue Keyboard</name>
                </buying_info>
                <additional_info>Business informatics rocks!</additional_info>
            </item_info>
            <due_date>2019-05-25</due_date>
            <list_entry_date>2019-03-27</list_entry_date>
        </item>
    </shopping_items>
</worker>
<worker svnr="1016111279" entrydate="2014-11-01" unique_feature="proud">
    <first_name>William</first_name>
    <last_name>Barnes</last_name>
    <nickname> Hound Dog Taylor</nickname>
    <plans/>
    <shopping_items/>
</worker>
<worker svnr="1021191092" entrydate="2018-05-10" unique_feature="moody">

```

```

<first_name>Kelly</first_name>
<last_name>Villarreal</last_name>
<nickname> Blind Mississippi Morris</nickname>
<plans>
  <plan plan_id="709" status="ready to prepare" priority="low">
    <endproduct_name>The tan ordinary Hoover</endproduct_name>
  </plan>
</plans>
<shopping_items>
  <item item_id="162" is_finished="false">
    <item_info>
      <buying_info>
        <seller_suggestion>Kohls</seller_suggestion>
        <name>yellow Latex Book</name>
      </buying_info>
      <additional_info>We are the best! Never forget that.</additional_info>
    </item_info>
    <due_date>2019-07-17</due_date>
    <list_entry_date>2019-03-27</list_entry_date>
  </item>
  <item item_id="959" is_finished="false">
    <item_info>
      <buying_info>
        <seller_suggestion>Kohls</seller_suggestion>
        <name>teal Box</name>
      </buying_info>
      <additional_info>We are the best! Never forget that.</additional_info>
    </item_info>
    <due_date>2019-07-11</due_date>
    <list_entry_date>2019-03-27</list_entry_date>
  </item>
</shopping_items>
</worker>
<worker svnr="1024101193" entrydate="2018-02-13" unique_feature="conservative">
  <first_name>Roger</first_name>
  <last_name>Everett</last_name>
  <nickname> Lead Belly</nickname>
  <plans>
    <plan plan_id="358" status="working" priority="very low">
      <endproduct_name>The magenta few Ultrasonic Sensors for Mbot</endproduct_name>
    </plan>
    <plan plan_id="393" status="working" priority="low">
      <endproduct_name>The purple economy Wallet</endproduct_name>
    </plan>
  </plans>
  <shopping_items>
    <item item_id="399" is_finished="false">
      <item_info>
        <buying_info>
          <seller_suggestion>Costco</seller_suggestion>
          <name>gray Printer</name>
        </buying_info>
        <additional_info>Make it very nice.</additional_info>
      </item_info>
    </item>
  </shopping_items>
</worker>

```

```

    <due_date>2019-05-09</due_date>
    <list_entry_date>2019-03-27</list_entry_date>
  </item>
  <item item_id="931" is_finished="false">
    <item_info>
      <buying_info>
        <seller_suggestion>Amazon</seller_suggestion>
        <name>blue Chips</name>
      </buying_info>
      <additional_info>Business informatics rocks!</additional_info>
    </item_info>
    <due_date>2019-05-19</due_date>
    <list_entry_date>2019-03-27</list_entry_date>
  </item>
  <item item_id="936" is_finished="false">
    <item_info>
      <buying_info>
        <seller_suggestion>Ebay</seller_suggestion>
        <name>silver Printer</name>
      </buying_info>
      <additional_info>Business informatics rocks!</additional_info>
    </item_info>
    <due_date>2019-07-09</due_date>
    <list_entry_date>2019-03-27</list_entry_date>
  </item>
</shopping_items>
</worker>
<worker svnr="1024191282" entrydate="2013-10-19" unique_feature="cautious">
  <first_name>Katherine</first_name>
  <last_name>Galloway</last_name>
  <nickname> Catfish Keith</nickname>
  <plans/>
  <shopping_items/>
</worker>
<worker svnr="1025131095" entrydate="2018-04-25" unique_feature="crazy">
  <first_name>Raymond</first_name>
  <last_name>Richardson</last_name>
  <nickname> Pink Anderson</nickname>
  <plans>
    <plan plan_id="370" status="ready to prepare" priority="medium">
      <endproduct_name>The lime unique Lamp</endproduct_name>
    </plan>
  </plans>
  <shopping_items>
    <item item_id="85" is_finished="false">
      <item_info>
        <buying_info>
          <seller_suggestion>Amazon</seller_suggestion>
          <name>olive Box</name>
        </buying_info>
        <additional_info>Whenever there is a problem... SOLVE IT!</additional_info>
      </item_info>
      <due_date>2019-07-17</due_date>
      <list_entry_date>2019-03-27</list_entry_date>
    </item>
  </shopping_items>

```

```

    </item>
  </shopping_items>
</worker>
<worker svnr="1040231083" entrydate="2013-03-21" unique_feature="weird">
  <first_name>Larry</first_name>
  <last_name>Pratt</last_name>
  <nickname> Little Brother Montgomery</nickname>
  <plans>
    <plan plan_id="289" status="prepared" priority="very high">
      <endproduct_name>The teal clean Cable</endproduct_name>
    </plan>
    <plan plan_id="489" status="cancelled" priority="very low">
      <endproduct_name>The blue nasty Spoon</endproduct_name>
    </plan>
  </plans>
  <shopping_items>
    <item item_id="982" is_finished="false">
      <item_info>
        <buying_info>
          <seller_suggestion>Etsy</seller_suggestion>
          <name>lime Bag</name>
        </buying_info>
        <additional_info>Whenever there is a problem... SOLVE IT!</additional_info>
      </item_info>
      <due_date>2019-06-13</due_date>
      <list_entry_date>2019-03-27</list_entry_date>
    </item>
  </shopping_items>
</worker>
<worker svnr="1049231272" entrydate="2015-01-25" unique_feature="naive">
  <first_name>Alexis</first_name>
  <last_name>Mcdowell</last_name>
  <nickname> Junior Wells</nickname>
  <plans>
    <plan plan_id="291" status="ready to prepare" priority="medium">
      <endproduct_name>The olive east Lamp</endproduct_name>
    </plan>
  </plans>
  <shopping_items/>
</worker>
<worker svnr="1056141294" entrydate="2018-06-04" unique_feature="sensitive">
  <first_name>Theresa</first_name>
  <last_name>Grimes</last_name>
  <nickname> Big Maceo Merriweather</nickname>
  <plans>
    <plan plan_id="512" status="finished" priority="low">
      <endproduct_name>The brown amazing Hoover</endproduct_name>
    </plan>
    <plan plan_id="517" status="finished" priority="high">
      <endproduct_name>The silver actual Keyboard</endproduct_name>
    </plan>
  </plans>
  <shopping_items/>
</worker>

```

</root>