select xmlroot(xmlelement(name "customer data",

```
xmlagg(
                    xmlelement(name "customer", xmlattributes(c.customer id as customer id, c.age as age),
        xmlforest(
                        c.last name as last name,
                        c.first name as first name,
                        c.gender as gender,
                        c.age as age,
                        c.title as title
                     ),
                                                xmlelement(name "order details",
                   xmlforest(
                               c.email as email,
                               c.phone as phone
                           xmlelement(name "order address",
                                           xmlforest(
                                            c.street as street,
                                            c.hause as house,
                                            c.flat as flat,
                                            c.gender as gender,
                                            c.porch as porch
                                                  ),
                                           xmlelement(name "detailed order data", xmlattributes(c.postal code as potal code),
                                                        xmlforest(
                                                            c.country as country,
                                                            c.city as city,
                                                            c.continent as continent
                                                        xmlelement(name "customer fridges on current address",
                                                                           (SELECT xmlagg(
                                                                                 xmlelement(name "fridge", xmlattributes(f.fridge id AS fridge id, f.year of prod as
year of production),
                                                                                         xmlforest(
                                                                                                     f.type AS fridge type,
                                                                                                     f.color as fridge color,
                                                                                                     f.prod_country as prod_country,
                                                                                                     f.volume as fridge volume
                                                                           FROM fridge as f WHERE c.fridge id = f.fridge id
        version '1.0', standalone yes)
from (select DISTINCT c.fridge id, c.customer id, c.last name, c.first name, c.gender, c.age, c.title, c.email, c.phone,
              ca.street, ca.hause, ca.flat, ca.porch,
              pc.postal code, pc.country, pc.city, pc.continent
              from customer as c
              JOIN customer address as ca ON c.customer id = ca.customer id
              JOIN postal code as pc ON ca.postal code = pc.postal code LIMIT 30) as c;
```

1.Query output

```
<?xml version="1.0" encoding="UTF-8"?>
<customer data>
                                                                                            •••
 <customer customer id="382" age="36">
   <last name>Castro</last name>
                                                                                             <customer customer id="630" age="31">
   <first name>Araceli</first name>
                                                                                               <last name>Khan</last name>
   <gender>female</gender>
                                                                                               <first name>Niamh</first name>
   <age>36</age>
                                                                                               <gender>female</gender>
   <title>ms</title>
                                                                                               <age>31</age>
   <order_details>
                                                                                               <title>ms</title>
    <email>araceli-81@example.com</email>
                                                                                               <order_details>
    <phone>(870) 839 4907</phone>
                                                                                                <email>niamh khan@example.com</email>
    <order address>
                                                                                                 <phone>(699) 364 5194</phone>
     <street>Uzfdaeuuzs Street</street>
                                                                                                <order address>
     <house>45</house>
                                                                                                  <street>Njqodxtgvs Street</street>
     <flat>74</flat>
                                                                                                  <house>11</house>
     <gender>female</gender>
                                                                                                  <flat>73</flat>
     <porch>0</porch>
                                                                                                  <gender>female</gender>
     <detailed order data potal code="1861">
                                                                                                  <porch>1</porch>
       <country>Austria</country>
                                                                                                  <detailed order data potal code="1967">
       <citv>Tvrol</citv>
                                                                                                   <country>Austria</country>
       <continent>Europe</continent>
                                                                                                   <city>Vienna</city>
       <customer fridges on current address>
                                                                                                   <continent>Europe</continent>
        <fridge fridge_id="83" year_of_production="2011-03-27">
                                                                                                   <customer fridges on current address>
          <fridge type>Side-by-side</fridge type>
                                                                                                     <fridge fridge_id="820" year_of_production="2015-09-30">
          <fridge color>silver</fridge color>
                                                                                                      <fridge type>Built-in</fridge type>
          country>Indonesia/prod_country>
                                                                                                      <fridge_color>silver</fridge_color>
          <fridge_volume>44.3</fridge_volume>
                                                                                                      </fridge>
                                                                                                      <fridge_volume>82</fridge_volume>
       </customer_fridges_on_current_address>
                                                                                                     </fridge>
     </detailed order data>
                                                                                                   </customer_fridges_on_current_address>
    </order address>
                                                                                                  </detailed order data>
   </order details>
                                                                                                </order address>
 </customer>
                                                                                               </order_details>
                                                                                             </customer>
•••
                                                                                            </customer data>
```

							ı														
fridge_id	customer_id	last_name	first_name	gender	age	title	email	phone	street	hause	flat	porch	postal_code	country	city	continent	type	year_of_prod	color	prod_country	volume
															Lower Austria						
5	876	אלתרמן	גלעד	male	24	mr	גלעד_93@example.com	(826) 103 7907	Fbcvodiowl Street	37	50	1	1249	Austria	EAST	Europe	Built-in	27.07.16	red	Russia	51.5
6	440	A1-16-	D. E. I		24		4.5.30	(240) 240 0422	Rymbzcmnmw	20	40		1490		Bl		Тор	44.05.45		N	95.4
ь	418	Aladár	DarFiczi	male	34	mr	darFiczi83@example.com	(219) 319 9432	Street	28	48	0	1490	Austria	Burgenland	Europe	freezer	11.05.15	brown	Vietnam	95.4
11	184	Teleanu	Darius	male	36	mr	darius81@example.com	(461) 348 5101	Cprnmutlkz Street	48	38	1	1050	Austria	Carinthia	Europe	freezer	29.10.16	black	Vietnam	41.4
															Lower Austria		Side-by-				
14	775	Βασιλειάδης	Ερμογένης	male	24	mr	voichiţa-89@example.com	(174) 479 5800	Mxqfjhxypv Street	47	78	1	1145	Austria	WEST	Europe	side	09.07.12	pink	Russia	44.5
15	490	Aman	VoichiM>a	female	28	ms	voichiИ>a-89@example.com	(649) 821 2476	Hnfrossrhi Street	14	27	0	1990	Austria	Upper Austria	Europe	Compact	13.09.17	brown	Russia	53.8
13	430	Aman	VOICHIVI7A	Terriale	20	1113	voicinivia-o5@example.com	(045) 821 2470	THIITO33THI SCIECE	14	21		1550	Austria	Austria	Lurope	Compact	13.03.17	brown	Nussia	33.0
17	260	Price	Nathan	male	21	mr	nathan_price@example.com	(543) 968 1944	Jpczeeqdmv Street	42	42	1	1109	Austria	Styria	Europe	Compact	02.05.15	brown	China	41.4
17	515	婉	婉	female	27	mrs	婉 @example.com	(960) 609 3820	Omfzozvvca Street	4	99	1	1688	Austria	Vienna	Europe	Compact	02.05.15	brown	China	41.4
17	313	XVE	XPE	Terriale	21	11113	шехатріе.соті	(900) 009 3820	Omizozvica street	4	33	1	1000	Austria	vieilila	Europe	Bottom	02.03.13	blowii	Cillia	41.4
18	9	Orleanu	Marin	male	30	mr	marin87@example.com	(301) 270 5922	Sexdptxwzm Street	32	30	1	1748	Austria	Carinthia	Europe	freezer	26.03.12	red	Vietnam	45
															Lower Austria		Bottom				
18	500	Palmer	Luca	male	33	mr	luca_palmer@example.com	(271) 144 9320	Zegjhunfrk Street	42	47	1	1979	Austria	WEST	Europe	freezer	26.03.12	red	Vietnam	45
															Lower Austria		Side-by-				
20	999	Davidovici	Bogdan	male	29	mr	bogdan-88@example.com	(852) 670 2048	Lkddnzfsue Street	27	62	0	1835	Austria	EAST Lower	Europe	side	16.11.10	pink	Vietnam	41.4
								/							Austria	_					
21	216	Straka	AugustFn	male	26	mr	augustFn-91@example.com	(773) 826 3298	Lqdrmndgsd Street	13	34	0	1510	Austria	WEST	Europe	Built-in	11.12.12	white	Japan	94.2
21	230	Murgeanu	Paraschiva	female	25	ms	paraschiva_92@example.com	(917) 580 7920	Fovfzmvcud Street	36	76	1	1554	Austria	Vienna	Europe	Built-in	11.12.12	white	Japan	94.2
							Μπουκουβαλαίοι														
22	365	Μπουκουβαλαίοι	Μπουκουβαλαίοι	male	35	mr	@example.com Frățilă	(501) 230 2201	Wgafkcnuzp Street	38	42	1	1769	Austria	Burgenland	Europe	Built-in	04.11.17	white	Russia	88.1
23	264	Frățilă	Frățilă	male	24	mr	@example.com	(246) 101 2274	Dsvmueemqw Street	14	33	0	1587	Austria	Tyrol	Europe	Compact	02.03.16	black	Germany	41.4
									Rmeewbkuxw						Lower Austria						
23	574	Ияоerbu	Teodora	female	29	mrs	teodora-88@example.com	(787) 170 1371	Street	9	15	0	1240	Austria	WEST	Europe	Compact	02.03.16	black	Germany	41.4
23	664	Giurescu	Valeria	female	27	ms	valeria-90@example.com	(172) 269 8371	Ptxnejywft Street	40	26	0	1193	Austria	Salzburg	Europe	Compact	02.03.16	black	Germany	41.4
23	004	Gidrescu	valetid	remaie	21	IIIS	valeria-90@example.com	(112) 203 63/1	rixilejywit Street	40	20	U	1193	Austrid	Saizonik	Europe	Side-by-	02.03.16	DIACK	Germany	41.4
24	310	Sokolov	Mirtel	female	26	ms	mirtel91@example.com	(837) 637 1786	Idijqhtdhh Street	35	77	1	1715	Austria	Salzburg	Europe	side	03.07.16	brown	Germany	41.4
26	836	Dana	Cining4		23		sisis## dana@aa.s.la	(780) 337 9308	7:libearanhu Char		26	1	1964		Carinthia	F	Тор	21.10.13	white	C	41.4
26	836	Deac	SinicДf	male	23	mr	sinicДf-deac@example.com	(760) 337 9308	Zjkbaeqvhx Street	4	26	1	1964	Austria	Lower	Europe	freezer	21.10.13	wnite	Germany	41.4
26	858	Ungur	Francisc	male	30	mr	francisc 87@example.com	(577) 131 2878	Mwdssuugon Street	9	42	1	1207	Austria	Austria WEST	Europe	Top freezer	21.10.13	white	Germany	41.4
20	636	Oligui	Trancisc	male	30		nancisc_o/@example.com	(511) 151 2010	www.asaagon street	,	72	1	1207	Austria	WEST	Lurope	Тор	21.10.13	wille	Germany	41.4
28	129	Štefánik	Vratko	male	24	mr	vratko93@example.com	(509) 688 5519	Fvwnpdnqnv Street	20	46	0	1440	Austria	Vienna	Europe	freezer	06.08.12	white	China	41.4

2. Query: Fetch all local facilities data

```
SELECT xmlroot(xmlelement(name "local facility data",
   xmlelement(name "local facility", xmlattributes(lf.facility id as facility id, lf.facility status as facility status),
                       lf.local facility name as local facility name,
                      lf.facility type as facility type
                xmlelement(name "provide service",
                    xmlelement(name "provide service in",
                               (SELECT xmlagg(
                                     xmlelement(name "postal code", xmlattributes(pc.postal code as potal code),
                                            xmlforest(
                                               pc.country as country,
                                               pc.city as city,
                                               pc.continent as continent
                               FROM postal code pc where lf.postal code = pc.postal code
                    xmlelement(name "provide service for",
                               (SELECT xmlagg(
                        xmlelement(name "customer data", xmlattributes(c.customer id as customer id, c.age as age),
                                                    xmlforest(
                                                                    c.last name as last name.
                                                                    c.first name as first name.
                                                                    c.gender as gender,
                                                                    c.title as title
                                                              xmlelement(name "customer address", xmlattributes(ca.street as street),
                                                                              xmlforest(
                                                                                    ca.street as street,
                                                                                    ca.hause as house,
                                                                                    ca.flat as flat,
                                                                                    ca.porch as porch
                               FROM customer c
                                JOIN customer_address ca ON c.customer_id = ca.customer_id
                                where c.customer id = lf.customer id
        version '1.0', standalone yes)
FROM (select distinct lf.facility id, lf.local facility name, lf.facility type, lf.facility status, lf.postal code, lf.customer id
     from local facility as 1f LIMIT 30) as 1f;
```

2.Query output

```
<?xml version="1.0" encoding="UTF-8"?>
<local_facility_data>
 local facility facility id="42" facility status="ACTIVE">
  <local facility name>Local Facility 42 GMBH</local facility name>
  <facility type>Mixed</facility type>
  ovide_service>
    cprovide_service_in>
     <postal code potal code="1386">
      <country>Austria</country>
      <city>Carinthia</city>
      <continent>Europe</continent>
     </postal_code>
     orvide service for>
      <customer data customer id="120" age="26">
        <last_name>Bratu </last_name>
        <first_name>Florian</first_name>
        <gender>female</gender>
        <title>ms</title>
        <customer address street="Ndbfmcgbcf Street">
         <street>Ndbfmcgbcf Street</street>
         <house>18</house>
         <flat>36</flat>
         <porch>0</porch>
        </customer address>
      </customer data>
     </local_facility>
...
```

```
<local facility facility id="366" facility status="INACTIVE">
  <local facility name>Local Facility 366 GMBH</local facility name>
  <facility_type>Private</facility_type>
  ovide_service>
    ovide_service_in>
     <postal code potal code="1002">
       <country>Austria</country>
       <city>Vienna</city>
       <continent>Europe</continent>
     </postal code>
     orovide service for>
       <customer_data customer_id="972" age="34">
        <last name>Baconschi</last name>
        <first_name>Gianina</first_name>
        <gender>female</gender>
        <title>ms</title>
        <customer_address street="Rmuejfcanx Street">
         <street>Rmuejfcanx Street</street>
         <house>20</house>
         <flat>45</flat>
         <porch>1</porch>
        </customer address>
       </customer data>
     </provide_service>
 </local facility>
</local_facility_data>
```

																I	
facility_id	local_facility_name	facility_type	facility_status	postal_code	customer_id	last_name	first_name	gender	age	title	street	hause	flat	porch	country	city	continent
																Lower	
721	Local Facility 721 GMBH	Private	INACTIVE	1455	309	Akhigbe	Aganga	male	23	mr	Uloorsynpl Street	6	1	1	Austria	Austria EAST	Europe
721	Local Facility 873	TTIVALE	IIVACTIVE	1433	303	Aktiigbe	Адинди	maic	- 23		Gloorsynpi street			-	Austria	LAST	Europe
873	GMBH	Private	ACTIVE	1069	995	Humbert	Adrien	male	33	mr	Lczvryfjlm Street	50	23	0	Austria	Vienna	Europe
0.55	Local Facility 965		13.14.07711/5	4500	476	0/000 =================================	0//0 5/55 0//01/-050				V . 1016	20					_
965	GMBH Local Facility 649	Mixed	INACTIVE	1563	476	Ο'ΟΣΟτΠΓΌμΟ−ΟτΟ∙Π,	Ο″ΟμΠŕΠЂΟϊΟΝ⁰ΟSO±	female	24	ms	Ywqisyldtk Street	39	83	1	Austria	Vienna	Europe
649	GMBH	Corporate	ACTIVE	1827	822	VДŕduva	Beniamin	male	29	mr	Yyqhypvbdf Street	32	11	1	Austria	Vienna	Europe
	Local Facility 222																
222	GMBH	Private	INACTIVE	1269	182	0–0±0ђ0ј0∙П,	ОљО»ОµОЇП"П‰ПЃ	male	26	mr	Lxcgzqfyny Street	45	13	0	Austria	Burgenland	Europe
569	Local Facility 569 GMBH	Mixed	INACTIVE	1819	42	KollΓЎr	AmΓЎlia	female	22	ms	Efjuzfsiot Street	23	4	0	Austria	Tyrol	Europe
	-		-								,,					Lower	
co=	Local Facility 637		107075	4250	000			١.								Austria	_
637	GMBH Local Facility 221	Corporate	ACTIVE	1259	999	Davidovici	Bogdan	male	29	mr	Lkddnzfsue Street	27	62	0	Austria	EAST Upper	Europe
221	GMBH	Private	ACTIVE	1985	508	RГ®рДѓ	AuricДŕ	male	28	mr	Arojwwodey Street	10	51	1	Austria	Austria	Europe
	Local Facility 241																
241	GMBH	Mixed	INACTIVE	1152	55	SchrF¶der	Max	male	33	mr	Geqqwmbihe Street	40	50	1	Austria	Vienna	Europe
	Local Facility 363															Lower Austria	
363	GMBH	Corporate	INACTIVE	1223	165	MiklΓis	Gallai	male	22	mr	Wtbsplcojz Street	20	99	1	Austria	EAST	Europe
	Local Facility 177													_			_
177	GMBH	Corporate	INACTIVE	1127	382	Castro	Araceli	female	36	ms	Uzfdaeuuzs Street	45	74	0	Austria	Vienna Lower	Europe
	Local Facility 777															Austria	
777	GMBH	Mixed	ACTIVE	1349	591	Valdez	Christian	male	33	mr	Ykwumyiaki Street	35	34	0	Austria	WEST	Europe
	Local Facility 63	5		4504	500	a: 1		١.			51 11 L Ct	25	-00			6.1.1	_
63	GMBH Local Facility 972	Private	INACTIVE	1564	699	Pineda	Benito	male	33	mr	Ejyithygkr Street	26	89	1	Austria	Salzburg Upper	Europe
972	GMBH 572	Private	ACTIVE	1035	744	Otto	Milena	female	25	ms	Afbiwctmbm Street	21	61	0	Austria	Austria	Europe
	Local Facility 697																
697	GMBH	Mixed	INACTIVE	1830	646	Jean	Loane	female	30	ms	Zhloggcabz Street	13	43	1	Austria	Styria	Europe
220	Local Facility 220 GMBH	Mixed	INACTIVE	1736	301	Sadoveanu	Beniamin	male	23	mr	Emikczcyjo Street	18	10	0	Austria	Styria	Europe
	2211			1,50	301			muic				- 23			71030110	Lower	_u.opc
	Local Facility 513															Austria	_
513	GMBH	Corporate	ACTIVE	1477	169	ОњОО»О№ОїО№	ΟљΠЊΠΓΌϊΟΝ≌ΟΙΟΐΠ,	male	25	mr	Dlwpevyqwz Street	18	70	0	Austria	WEST Lower	Europe
	Local Facility 610															Austria	
610	GMBH	Corporate	ACTIVE	1214	386	Mocioni	Aura	female	22	ms	Xccgprkbmr Street	23	57	1	Austria	WEST	Europe
505	Local Facility 696	C	INIA CTIVE	4704	207	O/OFFO:OFF	0.0.0.0.0.0.0.0.0.0		26		Devises and Standard		74		A	Upper	F
696	GMBH Local Facility 885	Corporate	INACTIVE	1794	237	Ο'ΟΠΓΌΙΟ±Π,	Ο•ΠΟεΟ»ΟμΟΪΟτΌ·Π,	male	26	mr	Pwjszqgxow Street	44	71	1	Austria	Austria	Europe
885	GMBH	Mixed	INACTIVE	1924	296	Valdez	Christian	male	33	mr	Ufkjifojso Street	18	77	0	Austria	Tyrol	Europe

3. Query: Fetch all appointment data

```
SELECT xmlroot(xmlelement(name "appointment data",
   xmlelement(name "appointment", xmlattributes(ap.appointment id as appointment id),
                              ap.appointment type as appointment type,
                              ap.special handling as special handling
                            ),
                      xmlelement(name "appointment_details",
                                   xmlelement(name "customer info",
                                                     (SELECT xmlagg(
                                                            xmlelement(name "customer details", xmlattributes(c.customer id as customer id, c.age as age),
                                                              xmlforest(
                                                                      c.customer to export as customer to export
                                                      FROM customer c where ap.customer id = c.customer id
                                    xmlelement(name "appointment date", xmlattributes(ap.appointment id as appointment id),
                                              xmlforest(
                                                  ap.real date as real date,
                                                  ap.esimated date as estimated date
                                              ),
                                    xmlelement(name "status",
                                              xmlelement(name "symptom", xmlattributes(ap.symptom type as symptom type),
                                                        xmlforest(
                                                              ap.symptom description as symptom description,
                                                              ap.caused by as caused by,
                                                              ap.assumption as assumption,
                                                              ap.symptom from as symptom from
                                                         xmlelement(name "status", xmlattributes(ap.status as status, ap.status type as status type),
                                                                   xmlforest(
                                                                          ap.repared as repared,
                                                                          ap.spendet time as spendet time,
                                                                          ap.esitmated time as estimated time
        version '1.0', standalone yes)
FROM (select distinct ap.appointment_id, ap.appointment_type, ap.special_handling, ap.real_date, ap.esimated_date, ap.customer_id,
              s.symptom type, s.symptom description, s.caused by, s.assumption, s.symptom from,
              rep.status, rep.status type, rep.repared, rep.spendet time, rep.esitmated time
      from appointment ap
 JOIN repair status rep ON ap.appointment id = rep.appointment id
   JOIN symptom s ON ap.appointment id = s.appointment id LIMIT 30) as ap;
```

3. Query output

```
<?xml version="1.0" encoding="UTF-8"?>
<appointment_data>
 <appointment appointment_id="644">
  <appointment_type>CORPORATE</appointment_type>
  <special_handling>As quick as possible/special_handling>
  <appointment details>
   <customer_info>
     <customer_details customer_id="466" age="34">
       <customer_to_export>
        <customer data>
         <customer>
           <customer_id>466</customer_id>
           <fridge_id>778</fridge_id>
           <first name>Paridhi</first name>
           <last_name>Malhotra</last_name>
           <gender>female</gender>
           <age>34</age>
           <title>ms</title>
           <phone>(360) 210 7424</phone>
           <email>paridhi-83@example.com</email>
           <customer address>
            <street>Nyyldxodlg Street</street>
            <hause>47</hause>
            <flat>95</flat>
            <porch>0</porch>
            <postal_code>
              <postal_code>1816</postal_code>
              <country>Austria</country>
              <city>Tyrol</city>
              <continent>Europe</continent>
              <type>commercial</type>
            </postal_code>
           </customer_address>
         </customer>
        </customer_data>
      </customer_to_export>
     </customer details>
    </customer_info>
    <appointment_date appointment_id="644">
     <real date>2015-07-10</real date>
     <estimated date>2017-04-19</estimated date>
    </appointment_date>
    <status>
     <symptom symptom_type="COOL_FREEZEIN">
      <symptom_description>Doesnt give me a cool vibes</symptom_description>
      <caused_by>Cat</caused_by>
      <assumption>UNKNOWN</assumption>
       <symptom_from>2011-09-28</symptom_from>
      <status status="NEED TO TAKE FRIDGE " status_type="WARNING ">
        <repared>NEED TO TAKE FRIDGE</repared>
        <spendet_time>03:42:27</spendet_time>
        <estimated_time>04:14:09</estimated_time>
      </status>
     </symptom>
    </status>
  </appointment_details>
 </appointment>
...
```

```
•••
 <appointment appointment id="687">
  <appointment_type>PRIVATE</appointment_type>
  <special handling>As quick as possible</special handling>
  <appointment details>
    <customer info>
     <customer_details customer_id="112" age="33">
      <customer to export>
        <customer data>
         <customer>
           <customer id>112</customer id>
           <fridge_id>961</fridge_id>
           <first_name>Samuel</first_name>
           <last name>Anderson</last name>
           <gender>male</gender>
           <age>33</age>
           <title>mr</title>
           <phone>(186) 226 1361</phone>
           <email>samuel-84@example.com</email>
           <customer address>
            <street>Mhdlioexbr Street</street>
            <hause>44</hause>
            <flat>29</flat>
            <porch>0</porch>
            <postal_code>
              <postal_code>1983</postal_code>
              <country>Austria</country>
              <city>Burgenland</city>
              <continent>Europe</continent>
              <type>private</type>
            </postal code>
           </customer_address>
         </customer>
        </customer_data>
       </customer_to_export>
     </customer details>
    </customer_info>
    <appointment_date appointment_id="687">
     <real_date>2014-09-26</real_date>
     <estimated date>2012-06-14</estimated date>
    </appointment date>
    <status>
     <symptom symptom_type="ELECTRONICAL">
      <symptom description>Dosnt turn on</symptom description>
      <caused_by>Baby</caused_by>
      <assumption>UNKNOWN</assumption>
      <symptom_from>2011-03-25</symptom_from>
      <status status="NEED HELP" status type="WARNING">
       <repared>NEED HELP</repared>
        <spendet time>00:16:04</spendet time>
        <estimated_time>04:10:29</estimated_time>
      </status>
     </symptom>
    </status>
  </appointment_details>
 </appointment>
</appointment data>
```

appointme nt id	appointment type	special_han dling	real_d ate	esimated_ date	custome r id	symptom_t ype	symptom_descr iption	caused_ by	assumpt ion	symptom_f rom	statu s	status_t ype	repar ed	spendet_t ime	esitmated_ time	customer to export
1	CORPORATE	Quality Inspection	26.04. 11	01.12.10	610	OUTESIDE DAMAGE	Doesnt give me a cool vibes	Wife	Dance on Fridge	19.07.16	NEED TOOL S	CRITICA L	NEED TOOL S	8:57:25	9:23:10	<pre><customer_data><customer><customer_data></customer_data></customer></customer_data></pre>
											TO TAKE		TO TAKE			
2	CORPORATE	Quality Inspection	23.05. 15	15.10.10	147	OUTESIDE DAMAGE	Dosnt turn on	Baby	Too high woltage	23.12.11	FRID GE	DEFAUL T	FRID GE	8:23:22	5:48:53	<customer_data><customer> <customer></customer></customer></customer_data>
3	CORPORATE	As quick as possible	24.05. 14	25.05.13	768	COOL_FREE ZEIN	Dosnt turn on	Cat	UNKNO WN	18.11.13	NEED HELP	CRITICA L	NEED HELP	5:19:28	4:56:59	<pre><customer_data><customer><customer></customer></customer></customer_data></pre>
4	CORPORATE	Quality Inspection	20.03. 11	06.05.11	935	ELECTRONI CAL	Doesnt give me a cool vibes	Dog	Too high woltage	02.07.16	NEED HELP	WARNIN G	NEED HELP	8:27:09	0:44:13	<customer_data><customer><customer></customer></customer></customer_data>
5	CORPORATE	As quick as possible	15.11. 11	26.01.13	853	ELECTRONI CAL	FRIDGE IS ON FIREEEE	Wife	UNKNO WN	17.12.16	NEED HELP	DEFAUL T	NEED HELP	12:30:13	8:39:25	<customer_data><customer> <customer></customer></customer></customer_data>
6	CORPORATE	DEFAULT	16.05. 14	29.06.15	667	ELECTRONI CAL	Doesnt really work	Baby	Drop fridge	01.04.12	NEED HELP	DEFAUL T	NEED HELP	12:53:43	7:34:14	<customer_data><customer> <customer>/customer_data></customer></customer></customer_data>
									Too many		TO TAKE		TO TAKE			
7	CORPORATE	Quality Inspection	27.03. 11	24.08.13	592	ICE	FRIDGE IS ON FIREEEE	Wife	beer there	05.12.11	FRID GE	CRITICA L	FRID GE	9:26:27	6:49:59	<customer_data><customer> <customer>/customer_data></customer></customer></customer_data>
											TO TAKE		TO TAKE			
8	CORPORATE	As quick as possible	01.06. 11	05.05.12	580	OUTESIDE DAMAGE	Doesnt really work	Cat	Too high woltage	04.11.13	FRID GE	DEFAUL T	FRID GE	0:05:11	0:53:33	<customer_data><customer> <customer>/customer_data></customer></customer></customer_data>
											TAKE		TAKE			
9	CORPORATE	Quality Inspection	19.03. 11	25.04.14	752	ICE	Dosnt turn on	Baby	Too high woltage	11.06.11	FRID GE	WARNIN G	FRID GE	1:15:29	8:26:30	<customer_data><customer> <customer>/customer_data></customer></customer></customer_data>
10	PRIVATE	Quality Inspection	22.12. 16	29.09.11	901	ELECTRONI CAL	UNKNOWN	Dog	UNKNO WN	22.03.13	NEED HELP	DEFAUL T	NEED HELP	12:31:23	0:57:19	<customer_data><customer> <customer>/customer_data></customer></customer></customer_data>
		As quick as	27.03.			OUTESIDE	Doesnt give me		Too many beer		ALL	WARNIN	ALL			
11	CORPORATE	possible	17	07.05.11	550	DAMAGE	a cool vibes	Cat	there Too	11.09.12	OK	G	ОК	11:23:10	2:08:31	<customer_data><customer><customer></customer></customer></customer_data>
12	PRIVATE	Quality Inspection	22.10. 14	13.11.17	166	FREEZING	Doesnt give me a cool vibes	UNKNO WN	many beer there	05.12.12	TOOL S	CRITICA	TOOL S	5:59:29	3:19:52	<pre><customer data=""><customer><customer< pre="">/customer data></customer<></customer></customer></pre>
		mspection		13:11:17	100		a cool vibes		Too many	OSIZEIZE	NEED		NEED	3.33.23	3.13.32	**************************************
13	CORPORATE	DEFAULT	04.06. 17	06.06.17	593	OUTESIDE DAMAGE	UNKNOWN	Wife	beer there Dance	27.07.13	TOOL S NEED	WARNIN G	TOOL S NEED	8:09:20	12:40:04	<customer_data><customer> <customer_data></customer_data></customer></customer_data>
14	CORPORATE	DEFAULT	09.01. 14	11.10.16	144	OUTESIDE DAMAGE	FRIDGE IS ON FIREEEE	UNKNO WN	on Fridge	29.05.12	TOOL S	WARNIN G	TOOL S	7:58:30	0:34:21	<customer_data><customer> <customer>/customer_data></customer></customer></customer_data>
15	CORPORATE	As quick as possible	23.07. 12	30.07.13	458	FREEZING	Doesnt give me a cool vibes	Wife	UNKNO WN	27.04.13	NEED TOOL S	CRITICA L	NEED TOOL S	4:49:18	11:51:19	<customer_data><customer><customer< customer="" data=""></customer<></customer></customer_data>
		As quick as	22.05.						Dance on		NEED TOOL	DEFAUL	NEED TOOL			
16	PRIVATE	possible As quick as	26.04.	06.09.13	874	FREEZING	UNKNOWN	Dog	Fridge UNKNO	21.02.10	S	WARNIN	S ALL	10:25:29	12:07:37	<customer_data><customer><customer></customer></customer></customer_data>
17	PRIVATE	possible Quality	08.08.	17.04.16	947	ELECTRONI	Dosnt turn on FRIDGE IS ON	UNKNO	Too high	19.09.10	OK NEED	G WARNIN	OK NEED	12:46:14	8:24:01	<customer_data><customer><customer></customer></customer></customer_data>
18	CORPORATE	As quick as	21.03.	12.11.15	846	CAL	FIREEEE	WN	woltage Too high	13.09.17	ALL	G DEFAUL	ALL	5:10:20	1:12:13	<customer_data><customer><customer></customer></customer></customer_data>
19	PRIVATE	possible Quality	17 29.12.	23.06.14	692	FREEZING	Dosnt turn on Doesnt give me	Baby	woltage Too high	21.01.13	OK ALL	T DEFAUL	OK ALL	7:57:25	11:03:13	<customer_data><customer><customer></customer></customer></customer_data>
20	CORPORATE	Inspection	17	08.03.10	893	FREEZING	a cool vibes	Dog	woltage	28.12.14	OK	T	OK	10:04:45	9:28:47	<customer_data><customer> <customer></customer></customer></customer_data>

4. Query: Fetch all rate data (using xml)

```
SELECT xmlroot(xmlelement(name "rate data",
  xmlagg(
      xmlelement(name "rate", xmlattributes(ap.appointment id AS appointment id),
                               xmlforest(
                              ap.appointment type AS appointment type,
                              ap.special handling AS special handling
                  xmlelement(name "rate details",
                             xmlelement name "status", xmlattributes (ap. status AS status, ap. status type AS status type, ap. rate AS rate, ap. rate type AS
rate type),
                                         xmlforest(
                                               ap.repared AS repared,
                                               ap.spendet time AS spendet time,
                                               ap.esitmated time AS estimated time
                             xmlforest(
                                 ap.rate description AS rate description,
                                 ap.recommend AS recommend
                                   ),
                      xmlelement(name "customer data",
                                          (SELECT xmlagg(
                                                      c.customer_to_export AS customer_to_export
                                           FROM customer c WHERE c.customer id = ap.customer id
                  ))),
        version '1.0', standalone yes)
FROM (SELECT DISTINCT ap.appointment_id, ap.appointment_type, ap.special_handling, ap.customer_id,
                rep.status, rep.status type, rep.repared, rep.spendet_time, rep.esitmated_time,
                fr.rate, fr.rate description, fr.rate type, fr.recommend
      FROM appointment ap
  JOIN facility rate fr ON ap.appointment id = fr.appointment id
   JOIN repair status rep ON ap.appointment id = rep.appointment id
   LIMIT 30) AS ap;
```

4.Query output

```
<?xml version="1.0" encoding="UTF-8"?>
<rate_data>
 <rate appointment_id="689">
  <appointment_type>PRIVATE</appointment_type>
  <special_handling>Quality Inspection</special_handling>
  <rate details>
    <status status="NEED HELP " status_type="DEFAULT " rate="5" rate_type="POSITIVE">
     <repared>NEED HELP</repared>
     <spendet_time>02:43:07</spendet_time>
     <estimated time>11:50:29</estimated time>
    </status>
    <rate_description>Funny Guy</rate_description>
    <recommend>YES</recommend>
    <customer_data>
     <customer_to_export>
      <customer_data>
        <customer>
         <customer id>189</customer id>
         <fridge id>64</fridge id>
         <first_name>Robert</first_name>
         <last_name>Alvarez</last_name>
          <gender>male</gender>
         <age>22</age>
         <title>mr</title>
         <phone>(964) 265 1784</phone>
          <email>robert-95@example.com</email>
         <customer_address>
           <street>Klzzltlnru Street</street>
           <hause>11</hause>
           <flat>16</flat>
           <porch>1</porch>
           <postal_code>
            <postal_code>1677</postal_code>
            <country>Austria</country>
            <city>Styria</city>
            <continent>Europe</continent>
            <type>commercial</type>
           </postal_code>
          </customer_address>
        </customer>
       </customer_data>
     </customer_to_export>
    </customer_data>
  </rate_details>
 </rate>
•••
```

```
•••
  <rate appointment id="92">
  <appointment_type>PRIVATE</appointment_type>
  <special_handling>DEFAULT</special_handling>
  <rate details>
   <status status="NEED TO TAKE FRIDGE " status_type="DEFAULT " rate="4" rate_type="POSITIVE">
     <repared>NEED TO TAKE FRIDGE</repared>
     <spendet time>02:38:28</spendet time>
     <estimated_time>00:09:53</estimated_time>
    </status>
   <rate_description>OMG SO BAD FUUUU</rate_description>
    <recommend>MORE NO</recommend>
    <customer_data>
     <customer_to_export>
      <customer data>
        <customer>
         <customer id>779</customer id>
         <fridge id>810</fridge id>
         <first_name>Nathan</first_name>
         <last_name>Price</last_name>
          <gender>male</gender>
         <age>21</age>
         <title>mr</title>
         <phone>(543) 968 1944</phone>
         <email>nathan_price@example.com</email>
         <customer_address>
           <street>Hyvtycsvaw Street</street>
           <hause>11</hause>
           <flat>7</flat>
           <porch>1</porch>
           <postal code>
            <postal_code>1689</postal_code>
            <country>Austria</country>
            <city>Lower Austria EAST</city>
            <continent>Europe</continent>
            <type>private</type>
           </postal_code>
          </customer_address>
        </customer>
      </customer data>
     </customer to export>
    </customer_data>
  </rate_details>
 </rate>
</rate_data>
```

appointment _id	appointment_ty pe	special_handling	customer _id	status	statys_type	repared	spendet_ti me	estimated_ti me	rat	rate_descrtiption	rate_type	customer_to_exp	recommend
1	CORPORATE	Quality Inspection	610	NEED TOOLS	CRITICAL	NEED TOOLS	8:57:25	9:23:10	1.0	NOT GOOD	NEGATIVE	ort <customer_data>< customer> <customer></customer></customer_data>	NOT SURE
2	CORPORATE	Quality Inspection	147	NEED TO TAKE FRIDGE	DEFAULT	NEED TO TAKE FRIDGE	8:23:22	5:48:53	3.0	Was cool	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	NOT SURE
3	CORPORATE	As quick as possible	768	NEED HELP	CRITICAL	NEED HELP	5:19:28	4:56:59	5.0	GOOD	NEGATIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	NO
4	CORPORATE	Quality Inspection	935	NEED HELP	WARNING	NEED HELP	8:27:09	0:44:13	3.0	Pretty Quick	NEGATIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	NOT SURE
5	CORPORATE	As quick as possible	853	NEED HELP	DEFAULT	NEED HELP	12:30:13	8:39:25	3.0	NOT GOOD	NEGATIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	MORE NO
6	CORPORATE	DEFAULT	667	NEED HELP	DEFAULT	NEED HELP	12:53:43	7:34:14	4.0	OMG SO BAD FUUUU	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	MORE NO
7	CORPORATE	Quality Inspection	592	NEED TO TAKE FRIDGE	CRITICAL	NEED TO TAKE FRIDGE	9:26:27	6:49:59	5.0	Pretty Quick	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	NO
8	CORPORATE	As quick as possible	580	NEED TO TAKE FRIDGE	DEFAULT	NEED TO TAKE FRIDGE	0:05:11	0:53:33	3.0	Liked it	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	MORE NO
9	CORPORATE	Quality Inspection	752	NEED TO TAKE FRIDGE	WARNING	NEED TO TAKE FRIDGE	1:15:29	8:26:30	2.0	Liked it	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	MORE NO
10	PRIVATE	Quality Inspection	901	NEED HELP	DEFAULT	NEED HELP	12:31:23	0:57:19	5.0	Was cool	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	NO
11	CORPORATE	As quick as possible	550	ALL OK	WARNING	ALL OK	11:23:10	2:08:31	1.0	Was cool	NEGATIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	MORE YES
12	PRIVATE	Quality Inspection	166	NEED TOOLS	CRITICAL	NEED TOOLS	5:59:29	3:19:52	4.0	GOOD	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	MORE NO
13	CORPORATE	DEFAULT	593	NEED TOOLS	WARNING	NEED TOOLS	8:09:20	12:40:04	1.0	GOOD	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	NO
14	CORPORATE	DEFAULT	144	NEED TOOLS	WARNING	NEED TOOLS	7:58:30	0:34:21	1.0	GOOD	NEGATIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	NO
15	CORPORATE	As quick as possible	458	NEED TOOLS	CRITICAL	NEED TOOLS	4:49:18	11:51:19	3.0	Liked it	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	MORE YES
16	PRIVATE	As quick as possible	874	NEED TOOLS	DEFAULT	NEED TOOLS	10:25:29	12:07:37	5.0	Pretty Quick	NEGATIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	NO
17	PRIVATE	As quick as possible	947	ALL OK	WARNING	ALL OK	12:46:14	8:24:01	1.0	GOOD	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	YES
18	CORPORATE	Quality Inspection	846	NEED HELP	WARNING	NEED HELP	5:10:20	1:12:13	1.0	GOOD	POSITIVE	<pre><customer_data>< customer> <customer></customer></customer_data></pre>	NOT SURE

5. Query: Fetch all rate and facilities data (using xml)

```
SELECT xmlroot(xmlelement(name "rates and facilities",
        xmlagg(
    xmlelement(name "rates of particular facility",
                  xmlelement(name "facility data", xmlattributes(lf.facility id as facility id, lf.facility type as facility type),
                                               xmlforest(
                                               lf.local_facility_name as local_facility_name,
                                               lf.facility status as facility status
                                               xmlelement(name "detailed data",
                                                      (SELECT
                                                                xmlagg(
                                                          xmlelement(name "appointment", xmlattributes(ap.appointment id as appointment id),
                                                                    xmlforest(
                                                                        ap.appointment data to export as appointment data to export
                                                       FROM appointment ap where ap.facility id = lf.facility id
                                                        xmlelement(name "facility rate",
                                                             (SELECT
                                                                    xmlagg(
                                                          xmlelement(name "appointment", xmlattributes(fr.rate as rate, fr.rate type as rate type),
                                                                        xmlforest(
                                                                                     fr.rate description as rate description,
                                                                                     fr.recommend as recommend
                                                               FROM facility rate fr JOIN repair status rep ON lf.appointment id = rep.appointment id
                                                              where lf.appointment id = fr.appointment id
         )
        version '1.0', standalone yes)
FROM (SELECT DISTINCT lf.facility id, lf.local facility name, lf.facility type, lf.facility status,
       a.appointment id
      from local_facility lf JOIN appointment a ON a.facility_id = lf.facility_id
    LIMIT 30) as lf:
```

5. Query output (because of xml it's pretty big)

```
<?xml version="1.0" encoding="UTF-8"?>
<rates and facilities>
 <rates_of_particular_facility>
   <facility_data facility_id="610" facility_type="Corporate">
   <local_facility_name>Local Facility 610 GMBH</local_facility_name>
   <facility_status>ACTIVE</facility_status>
    <detailed_data>
     <appointment appointment_id="787">
       <appointment data to export>
        <appointment_data>
          <appointment>
           <appointment id>787</appointment id>
           <appointment_type>CORPORATE</appointment_type>
           <special handling>DEFAULT</special handling>
           <esimated_date>2010-09-13</esimated_date>
           <real_date>2014-07-18</real_date>
           <customer id>302</customer id>
           <facility>
             <facility id>105</facility id>
             <local_facility_name>Local Facility 105 GMBH</local_facility_name>
             <facility type>Mixed</facility type>
             <facility_status>INACTIVE</facility_status>
             <repair>
              <status>NEED HELP</status>
              <status type>WARNING</status type>
              <repared>NEED HELP</repared>
              <spendet_time>01:30:28</spendet_time>
              <esitmated time>12:42:36</esitmated time>
              <symptom>
                <symptom_type>FREEZING</symptom_type>
                <symptom description>Doesnt give me a cool vibes</symptom description>
                <caused bv>Cat</caused bv>
                <assumption>Too many beer there</assumption>
                <symptom_from>2017-07-26</symptom_from>
              </symptom>
             </repair>
           </facility>
          </appointment>
         </appointment_data>
       </appointment data to export>
     </appointment>
     <appointment>
       <appointment_data_to_export>
        <appointment data>
          <appointment>
           <appointment_id>787</appointment_id>
           <appointment_type>CORPORATE</appointment_type>
           <special handling>Quality Inspection</special handling>
           <esimated_date>2013-12-21</esimated_date>
           <real date>2015-10-15</real date>
           <customer_id>184</customer_id>
```

```
<facility>
             <facility id>333</facility id>
            <local facility name>Local Facility 333 GMBH</local facility name>
            <facility_type>Mixed</facility_type>
            <facility_status>INACTIVE</facility_status>
             <repair>
              <status>ALL OK</status>
              <status type>DEFAULT</status type>
              <repared>ALL OK</repared>
              <spendet_time>11:47:39</spendet_time>
              <esitmated_time>03:53:12</esitmated_time>
              <symptom>
                <symptom_type>FREEZING</symptom_type>
                <symptom_description>Dosnt turn on</symptom_description>
                <caused_by>UNKNOWN</caused_by>
                <assumption>UNKNOWN</assumption>
                <symptom from>2010-09-29</symptom from>
              </symptom>
            </repair>
           </facility>
          </appointment>
        </appointment_data>
       </appointment_data_to_export>
     </appointment>
     <facility rate>
       <appointment rate="1" rate_type="POSITIVE">
        <rate_description>Was cool</rate_description>
        <recommend>MORE NO</recommend>
       </appointment>
     </facility_rate>
    </detailed data>
  </facility_data>
 </rates of particular facility>
  <facility_data>
     </facility_rate>
    </detailed data>
  </facility_data>
</rates_of_particular_facility>
</rates_and_facilities>
```

facility_id	local_facility_name	facility_type	facility_status	appointment_id	rate	rate_description	rate_type	recommend	appointment_data_to_export
	Local Facility 380								<appointment_data><appointment></appointment></appointment_data>
380	GMBH	Mixed	INACTIVE	58	1	OMG SO BAD FUUUU	POSITIVE	NO	
	Local Facility 380								<appointment_data><appointment></appointment></appointment_data>
380	GMBH	Mixed	INACTIVE	642	1	OMG SO BAD FUUUU	POSITIVE	NO	
	Local Facility 380								<appointment_data><appointment></appointment></appointment_data>
380	GMBH	Mixed	INACTIVE	509	1	OMG SO BAD FUUUU	POSITIVE	NO	
	Local Facility 357								<appointment_data><appointment></appointment></appointment_data>
357	GMBH	Private	ACTIVE	23	1	Funny Guy	POSITIVE	MORE YES	
	Local Facility 293								<appointment_data><appointment></appointment></appointment_data>
293	GMBH	Mixed	ACTIVE	13	1	GOOD	POSITIVE	NO	
	Local Facility 655								<appointment_data><appointment></appointment></appointment_data>
655	GMBH	Private	INACTIVE	5	3	NOT GOOD	NEGATIVE	MORE NO	
	Local Facility 655								<appointment_data><appointment></appointment></appointment_data>
655	GMBH	Private	INACTIVE	474	3	NOT GOOD	NEGATIVE	MORE NO	
	Local Facility 124								<appointment_data><appointment></appointment></appointment_data>
124	GMBH	Private	ACTIVE	72	3	Pretty Quick	POSITIVE	NOT SURE	
	Local Facility 124								<appointment_data><appointment></appointment></appointment_data>
124	GMBH	Private	ACTIVE	311	3	Pretty Quick	POSITIVE	NOT SURE	
	Local Facility 124								<appointment_data><appointment></appointment></appointment_data>
124	GMBH	Private	ACTIVE	114	3	Pretty Quick	POSITIVE	NOT SURE	
	Local Facility 469								<appointment_data><appointment></appointment></appointment_data>
469	GMBH	Mixed	ACTIVE	170	4	Liked it	POSITIVE	MORE YES	
	Local Facility 469								<appointment_data><appointment></appointment></appointment_data>
469	GMBH	Mixed	ACTIVE	373	4	Liked it	POSITIVE	MORE YES	
	Local Facility 669								<appointment_data><appointment></appointment></appointment_data>
669	GMBH	Corporate	ACTIVE	109	4	NOT GOOD	NEGATIVE	NO	
	Local Facility 669								<appointment_data><appointment></appointment></appointment_data>
669	GMBH	Corporate	ACTIVE	652	4	NOT GOOD	NEGATIVE	NO	
	Local Facility 669								<appointment_data><appointment></appointment></appointment_data>
669	GMBH	Corporate	ACTIVE	750	4	NOT GOOD	NEGATIVE	NO	
	Local Facility 99								<appointment_data><appointment></appointment></appointment_data>
99	GMBH	Corporate	INACTIVE	140	1	Was cool	NEGATIVE	NO	
	Local Facility 388								<appointment_data><appointment></appointment></appointment_data>
388	GMBH	Mixed	INACTIVE	146	5	Funny Guy	POSITIVE	NO	
	Local Facility 388								<appointment_data><appointment></appointment></appointment_data>
388	GMBH	Mixed	INACTIVE	175	5	Funny Guy	POSITIVE	NO	
	Local Facility 867								<appointment_data><appointment></appointment></appointment_data>
867	GMBH	Mixed	INACTIVE	130	1	Liked it	POSITIVE	MORE NO	
	Local Facility 867								<appointment_data><appointment></appointment></appointment_data>
867	GMBH	Mixed	INACTIVE	774	1	Liked it	POSITIVE	MORE NO	