Lesson 8 done by Yergesh Bakytzhan

Clob_to_csv

```sql
select
*
from employees;


create table t_clob_files
  (id_ord integer,
  clob_body clob,
  file_name varchar2(100),
  datesys date)
declare
  my_total_clob clob;
  v_cnt      number;
  i          number := 1;
  csv   clob   :=   'EMPLOYEE_ID;   FIRST_NAME;   LAST_NAME;   EMAIL;
PHONE_NUMBER;   HIRE_DATE;   JOB_ID;   SALARY;   COMMISSION_PCT;
MANAGER_ID; DEPARTMENT_ID' || chr(10);
  --chr(10) -это символ подачи строки,



begin


  dbms_lob.createtemporary(my_total_clob, true);
  dbms_lob.append(my_total_clob, csv);



  for r in (select * from employees) loop
```

```sql
    csv := to_char(r.EMPLOYEE_ID) || ';' ||
        to_char(r.FIRST_NAME) || ';' ||
        to_char(r.LAST_NAME) || ';' ||
        to_char(r.EMAIL) || ';' ||
        to_char(r.PHONE_NUMBER) || ';' ||
        to_char(r.HIRE_DATE, 'dd.mm.yyyy') || ';' ||
        to_char(r.JOB_ID) || ';' ||
        to_char(r.SALARY) || ';' ||
        to_char(r.COMMISSION_PCT) || ';' ||
        to_char(r.MANAGER_ID) ||
        CHR(10);
    dbms_lob.append(my_total_clob, csv);
    i := i + 1;
    csv := null;
  end loop;
  insert into t_clob_files
    (id_ord, clob_body, file_name, datesys)
  values
    (
    to_number(regexp_replace(to_char(SYSDATE),'[^[[:digit:]]]*')),
    --clob_to_blob(my_total_clob),
    my_total_clob,
    'CSV_ITOG_'||to_number(regexp_replace(to_char(SYSDATE),'[^[[:digit:]]]*')),
    sysdate);
  commit;
end;
select * from t_clob_files;
```

ID_ORD	CLOB_BODY	FILE_NAME	DATESYS
	EMPLOYEE_ID; FIRST_NAME; LAST_NAME; EMAIL; PHONE_NUMBER; HIRE_DATE; JOB_ID; SALARY; COMMISSION_PCT; MANAGER_ID; DEPARTMENT_ID 100;Steven;King;SKING;515.123.4567;17.06.2003;AD_PRES;24000;;; 101;Neena;Kochhar;NKOCHHAR;515.123.4568;21.09.2005;AD_VP;17000;;;100 102;Lex;De Haan;LDEHAAN;515.123.4569;13.01.2001;AD_VP;17000;;100 103;Alexander;Hunold;AHUNOLD;590.423.4567;03.01.2006;IT_PROG;9000;;;102 104;Bruce;Ernst;BERNST;590.423.4568;21.05.2007;IT_PROG;6000;;103 105;David;Austin;DAUSTIN;590.423.4569;25.06.2005;IT_PROG;4800;;103 106;Valli;Pataballa;VPATABAL;590.423.4560;05.02.2006;IT_PROG;4800;;103 107;Diana;Lorentz;DLORENTZ;590.423.5567;07.02.2007;IT_PROG;4200;;103 108;Nancy;Greenberg;NGREENBE;515.124.4569;17.08.2002;FI_MGR;12008;;101 109;Daniel;Faviet;DFAVIET;515.124.4169;16.08.2002;FI_ACCOUNT;9000;;108 110;John;Chen;JCHEN;515.124.4269;28.09.2005;FI_ACCOUNT;8200;;108 111;Ismael;Sciarra;ISCIARRA;515.124.4369;30.09.2005;FI_ACCOUNT;7700;;108 112;Jose Manuel;Urman;JMURMAN;515.124.4469;07.03.2006;FI_ACCOUNT;7800;;108 113;Luis;Popp;LPOPP;515.124.4567;07.12.2007;FI_ACCOUNT;6900;;108 114;Den;Raphaely;DRAPHEAL;515.127.4561;07.12.2002;PU_MAN;11000;;100 115;Alexander;Khoo;AKHOO;515.127.4562;18.05.2003;PU_CLERK;3100;;114 116;Shelli;Baida;SBAIDA;515.127.4563;24.12.2005;PU_CLERK;2900;;114 117;Sigal;Tobias;STOBIAS;515.127.4564;24.07.2005;PU_CLERK;2800;;114 118;Guy;Himuro;GHIMURO;515.127.4565;15.11.2006;PU_CLERK;2600;;114 119;Karen;Colmenares;KCOLMENA;515.127.4566;10.08.2007;PU_CLERK;2500;;114 120;Matthew;Weiss;MWEISS;650.123.1234;18.07.2004;ST_MAN;8000;;100 121;Adam;Fripp;AFRIPP;650.123.2234;10.04.2005;ST_MAN;8200;;100		

Clob_to_xlsx

```
declare

  START_MSG          CLOB;

  MSG_MSG            CLOB;

  END_MSG            CLOB;

  SHEET_BLOCK        CLOB;

  END_BLOCK          CLOB;

  BODY_MSG           CLOB;

  BODY_MSG1          CLOB;

  DATE_OTCHET        DATE;


  CURSOR TR_TABLE IS
    select * from jobs;


  REC TR_TABLE%ROWTYPE;

BEGIN

  DATE_OTCHET := trunc(sysdate)-1;
```

```xml
START_MSG    := '<?xml version="1.0" encoding="Windows-1251"?>
<?mso-application progid="Excel.Sheet"?>
<Workbook xmlns="urn:schemas-microsoft-com:office:spreadsheet"
 xmlns:o="urn:schemas-microsoft-com:office:office"
 xmlns:x="urn:schemas-microsoft-com:office:excel"
 xmlns:ss="urn:schemas-microsoft-com:office:spreadsheet"
 xmlns:html="http://www.w3.org/TR/REC-html40">
<DocumentProperties xmlns="urn:schemas-microsoft-com:office:office">
 <Created>2006-09-16T00:00:00Z</Created>
 <LastSaved>2006-09-16T00:00:00Z</LastSaved>
 <Version>15.00</Version>
</DocumentProperties>
<OfficeDocumentSettings xmlns="urn:schemas-microsoft-com:office:office">
 <AllowPNG/>
 <RemovePersonalInformation/>
</OfficeDocumentSettings>
<ExcelWorkbook xmlns="urn:schemas-microsoft-com:office:excel">
 <WindowHeight>8010</WindowHeight>
 <WindowWidth>14805</WindowWidth>
 <WindowTopX>240</WindowTopX>
 <WindowTopY>105</WindowTopY>
 <ProtectStructure>False</ProtectStructure>
 <ProtectWindows>False</ProtectWindows>
</ExcelWorkbook>
<Styles>
<Style ss:ID="Default" ss:Name="Normal">
 <Alignment ss:Vertical="Bottom"/>
```

```
    <Borders/>
    <Font ss:FontName="Calibri" x:CharSet="134" x:Family="Swiss" ss:Size="11"
     ss:Color="#000000"/>
    <Interior/>
    <NumberFormat/>
    <Protection/>
   </Style>
   <Style ss:ID="s16">
    <Alignment ss:Vertical="Top" ss:WrapText="1"/>
    <Font ss:FontName="Calibri" x:Family="Swiss" ss:Size="11" ss:Color="#000000"/>
   </Style>
  </Styles>';
   sheet_block:= '<Worksheet ss:Name="Sheet1">
     <Table><Column ss:Width="183"/>
      <Column ss:Width="115.5"/>
     <Row>
      <Cell><Data ss:Type="String">report_date</Data></Cell>
      <Cell><Data ss:Type="String">job_id</Data></Cell>
      <Cell><Data ss:Type="String">job_title</Data></Cell>
      <Cell><Data ss:Type="String">min_salary</Data></Cell>
      <Cell><Data ss:Type="String">max_salary</Data></Cell></Row>';
   end_block:='</Table>
     <WorksheetOptions xmlns="urn:schemas-microsoft-com:office:excel">
      <PageSetup>
      <Header x:Margin="0.3"/>
      <Footer x:Margin="0.3"/>
      <PageMargins x:Bottom="0.75" x:Left="0.7" x:Right="0.7" x:Top="0.75"/>
      </PageSetup>
```

```
          <Selected/>
          <ProtectObjects>False</ProtectObjects>
          <ProtectScenarios>False</ProtectScenarios>
        </WorksheetOptions>
      </Worksheet>';
  end_msg:='</Workbook>';
 FOR REC IN TR_TABLE LOOP
     BODY_MSG          := '';
     BODY_MSG                          :=  '<Row><Cell><Data  ss:Type="String">'
||to_char(date_otchet,'dd.mm.yyyy') || '</Data></Cell>' ||SYS.UTL_TCP.CRLF ||
                    '<Cell><Data  ss:Type="String">'  ||rec.job_id  ||  '</Data></Cell>'
||SYS.UTL_TCP.CRLF ||
                    '<Cell><Data  ss:Type="String">' ||rec.job_title || '</Data></Cell>'
||SYS.UTL_TCP.CRLF ||
                    '<Cell      ss:StyleID="s16"><Data      ss:Type="Number">'
||rec.min_salary || '</Data></Cell>' ||SYS.UTL_TCP.CRLF ||
                    '<Cell      ss:StyleID="s16"><Data      ss:Type="Number">'
||rec.max_salary || '</Data></Cell></Row>';
     BODY_MSG1         := BODY_MSG1 || SYS.UTL_TCP.CRLF || BODY_MSG;
  END LOOP;
    MSG_MSG                                                            :=
start_msg||sys.utl_tcp.CRLF||sheet_block||sys.utl_tcp.CRLF||body_msg1||sys.utl_tcp.CRLF|
|end_block||sys.utl_tcp.CRLF||end_msg;
  insert into t_clob_files
    (id_ord, clob_body, file_name, datesys)
  values
    (
    to_number(regexp_replace(to_char(SYSDATE),'[^[[:digit:]]]*')),
    --clob_to_blob(my_total_clob),
    MSG_MSG,
    'XML_XLSX_'||to_number(regexp_replace(to_char(SYSDATE),'[^[[:digit:]]]*')),
```

```
      sysdate);
    commit;
EXCEPTION
  WHEN OTHERS THEN
    NULL;
end;
```

Example:

```sql
select
XMLELEMENT("EMPLOYEES", a.employee_id,
        XMLELEMENT("FNAME", a.first_name)
        ).EXTRACT ('/').getclobval ()
from employees a;
```

```sql
declare
--xml_body clob;
my_clob clob;
my_total_clob clob;
```

```
shapka  clob:='<?xml  version="1.0"  encoding="UTF-8"  standalone="no"?><batch><entities
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">';

popa clob:='</entities></batch>';

begin


dbms_lob.createtemporary(my_total_clob, true);

dbms_lob.createtemporary(my_clob, TRUE);

dbms_lob.createTemporary(v_add_blob, true);

for i in

(

select * from jobs

)

SELECT

        XMLELEMENT ( "loans_report",

                        XMLELEMENT ( "ref_region",

                                        XMLELEMENT ( "code", a.filial)

                            ),

                        XMLELEMENT ( "is_homogeneous", a.snp_ind),

                        XMLELEMENT ( "repay_debt", case when a.loan_concelled_nat = 0

then null end),

                        XMLELEMENT ( "ref_residency",

                                        XMLELEMENT ( "code", a.is_resident)


            ).EXTRACT ('/').getclobval () as xml_body

from loans_xml_final a

)

loop

   dbms_lob.append(my_clob,chr(10) || i.xml_body);

end loop;
```

```
dbms_lob.append(my_total_clob, shapka);

dbms_lob.append(my_total_clob, my_clob);

dbms_lob.append(my_total_clob, chr(10) || popa);

--таблицы

dbms_lob.freeTemporary(my_total_clob);

dbms_lob.freeTemporary(v_add_blob);

end;
```