

# **PL/SQL Web Toolkit Tutorial**

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## **Example1**

```
create or replace procedure hello is
begin
    htp.print('<h1>Hello Eyad</h1>');
end;
/
```

## **Example 2**

```
Create or replace procedure first is
begin
    htp.print('Hello World');
end;
/
```

## **Example3**

```
create or replace procedure get_name is
    x    emp.ename%type;
begin
    select ename into x from emp where empno=7499;
    htp.print(x);
end;
/
```

## **Example 4**

```
create or replace procedure get_name is
    x    emp.ename%type;
    y    emp.sal%type;
begin
-- <h1> and </h1> are standard HTML tags
-- to print more than one value , you must use ||
    select ename , sal into x, y from emp where empno=7499;
    htp.print('<h1>' ||x|| ''||y || '</h1>');
end;
/
```

## **Example 5**

```
create or replace procedure get_name is
    x    emp.ename%type;
    y    emp.sal%type;
begin
-- the following package will produce <html>
    htp.htmlopen;
-- adding background color
    htp.print('<body bgcolor = "#00FFFF">');
-- <h1> and </h1> are standard HTML tags
-- to print more than one value , you must use ||

```

```

select ename , sal into x, y from emp where empno=7499;
  htp.print('<h1>' ||x||'</h1>');
end;
/

```

### **Example 6**

```

create or replace procedure get_All is
cursor c1 is select * from emp;
rec  c1%rowtype;
begin
  open c1;
  loop
    fetch c1 into rec;
    exit when c1%notfound;
-- This will print all values after each other, there is no new line
    htp.print (rec.ename ||' '|| rec.sal);
  end loop;
end ;
/

```

### **Example 7**

```

create or replace procedure get_All is
cursor c1 is select * from emp;
rec  c1%rowtype;
begin
  open c1;
  loop
    fetch c1 into rec;
    exit when c1%notfound;
-- This will print all values after each other, there is no new line
    htp.print (rec.ename ||' '|| rec.sal);
    htp.print ('<br>');
    htp.nl;
  end loop;
end ;
/

```

### **Example 8**

```

create or replace procedure new_Table is
  x  boolean;
begin
-- OWA_UTIL is a package that is installed when OAS is installed
-- and the procedure tableprint will print a table based on the following
-- first column .. table name
-- second colum .. BORDER (if you want the table to have borders_
--           NULL is you do not want a border
-- third column  owa_util.pre_table or owa_util.html_table
--               this option will affect how the borders look like
-- fourth column  The list of column you want to display seperated by
--               commas, and contained within single quotes
-- fifth column   You can add an order by and a where condition
-- sixth column   you can supply your own column headers (alias)
  x:= owa_util.tableprint('EMP','border',owa_util.pre_table,'ename, sal, job');
end;

```

/

### **Example 9**

```
CREATE OR REPLACE PROCEDURE new_proc (p1 number) AS
-- Parameter p1 is expected to be passed by the user
-- to choose a specific deptno
-- Very IMPORTNAT NOTE
-- To call this procedure from the Browser and pass this parameter
-- you must follow the standard for that which is
-- http://..../.../new_proc?P1=30  (P1 is the parameter name)
--           (30 is the deptno )
cursor c1 is select * from emp where deptno = p1;
rec  c1%rowtype ;
BEGIN
-- Generated by WEB ALCHEMY
htp.htmlOpen;
htp.headOpen;
htp.title( 'table2');
htp.headClose;
htp.bodyOpen( cattributes => ' text="#000000" bgcolor="#CC66CC" link="#0000EE"
vlink="#551A8B"' );
htp.header( 1, 'Our converted program');
open c1;
loop
  fetch c1 into rec;
  exit when c1%notfound;
  htp.tableOpen( cborder => 'TRUE', cattributes => ' COLS=2 WIDTH="100%"' );
  htp.tableRowOpen;
  htp.tableData( '<FONT color="#3333FF">' ||
    rec.ename ||
    '</FONT>');
  htp.tableData( '<FONT color="#3333FF">' ||
    rec.deptno ||
    '</FONT>');
  htp.tableRowClose;
  htp.tableClose;
  htp.para;
-- htp.print( 'End of page ' );
  htp.bodyClose;
  htp.htmlClose;
end loop;
END;
/
```

### **Example 10**

create or replace procedure testing (p1 number default 0) is

```
x  boolean;
begin
  x:= owa_util.tableprint('DEPT','BORDER',owa_util.html_table,'*',
  'where deptno ='||p1);
end;
/
```

### **Example 11**

```

CREATE OR REPLACE PROCEDURE testing1 AS
BEGIN
  htp.htmlOpen;
  htp.headOpen;
  htp.title( 'table3' );
  htp.headClose;
  htp.bodyOpen;
  htp.tableOpen( cborder => 'TRUE', cattributes => ' COLS=3 WIDTH="50%" BGCOLOR="#33CCFF"' );
  for rec in (select * from dept) loop
    htp.tableRowOpen;
    htp.tableData( rec.deptno );
    htp.tableData( rec.dname );
    htp.tableData( rec.loc );
    htp.tableRowClose;
  end loop;
  htp.tableClose;
  htp.bodyClose;
  htp.htmlClose;
END;
/

```

### **example 12**

create or replace procedure calendar is  
begin

```

-- This package expects a select statement whose first column is a date
-- The second column (if provided) will appear as a text on the date
-- specified by the first column.
-- The third column (if specificie) will act as a hyperlink for the second
-- column. Oracle expects a name of an existing procedure stored in the
-- third column
-- the following two records are inserted in the database to explain
/*

```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	NEW_PROC?p1=10		17-NOV-0081	5000		10
7698	BLAKE	new_proc?p1=30	7839	01-MAY-0081	2850		30

```

*/
owa_util.calendarprint('select hiredate , ename, job  from emp');
-- note that in the above statement the third field (job) must contain
-- procedure name
end;
/

```

### **example 13**

create or replace procedure check\_box is  
begin

```

  htp.formOpen (owa_util.get_owa_service_path||'new_proc');
  -- The above procedure will call get_name when the submit button is pressed
  htp.formcheckbox('P1',10);
  htp.formhidden ('P1','0');
  -- Note that when the SUBMIT button is pressed, the name of the CheckBox
  -- and itsvalue will be passed to the procedure defined in the htp.FORMOPEN
  -- Therefore, the name of the checkbox should match the name of the parameter in

```

```

-- the procedure.
-- htp.formcheckbox will create a check box with a name of B1 and a value of 10
-- effective when the check box is pressed
-- htp.formhidden will take effect if the checkbox is not touched
-- htp.nl
  htp.formsubmit(",'GO....'); -- Go here is the caption
owa_util.showsource('CHECK_BOX') ;-- to display the source code on the browser
end;
/

```

### **example 14**

```

create or replace procedure check_box is
begin
  htp.formOpen (owa_util.get_owa_service_path||'new_proc');
  -- The above procedure will call get_name when the submit button is pressed
  -- the following cursor will print checkboxes as many times as there
  -- are record in the dept table
  For rec in (select * from dept) loop
    htp.formcheckbox('P1',rec.deptno);
    htp.print (rec.dname);
    htp.nl;
    htp.formhidden ('P1','0');
    -- Note that when the SUBMIT button is pressed, the name of the CheckBox
    -- and itsvalue will be passed to the procedure defined in the htp.FORMOPEN
    -- Therefore, the name of the checkbox should match the name of the parameter in
    -- the procedure.
    -- htp.formcheckbox will create a check box with a name of B1 and a value of 10
    -- effective when the check box is pressed
    -- htp.formhidden will take effect if the checkbox is not touched
  end loop;
  htp.formsubmit(",'GO....'); -- Go here is the caption
owa_util.showsource('CHECK_BOX') ;-- to display the source code on the browser
end;
/

```

### **example 15**

```

create or replace procedure check_box is
begin
  htp.formOpen (owa_util.get_owa_service_path||'new_proc');
  -- The above procedure will call get_name when the submit button is pressed
  -- the following cursor will print checkboxes as many times as there
  -- are record in the dept table
  -- the following will display three pop list to let you
  -- choose a day.
  owa_util.choose_date('date_name',sysdate);
  For rec in (select * from dept) loop
    htp.formcheckbox('P1',rec.deptno);
    htp.print (rec.dname);
    htp.nl;
    htp.formhidden ('P1','0');
    -- Note that when the SUBMIT button is pressed, the name of the CheckBox
    -- and itsvalue will be passed to the procedure defined in the htp.FORMOPEN
    -- Therefore, the name of the checkbox should match the name of the parameter in

```

```

-- the procedure.
end loop;
    htp.formsubmit("'GO....'); -- Go here is the caption
owa_util.showsource('CHECK_BOX') ;-- to display the source code on the browser
end;
/

```

### **Example 16**

```

create or replace procedure pop_list is
begin
    htp.formOpen (owa_util.get_owa_service_path||'new_proc');
    -- the following will create a pick list with a name P1
    htp.formselectopen('P1','Pick a choice');
    for rec in (select deptno, dname from dept) loop
        -- The following will populate the pick list with dname and deptno
        -- Note that dname will appear in the list
        -- upon submitting, deptno will be assigned to P1 and sent to the procedure
        -- whose name is specified in the htp.formopen
        htp.formselectoption(rec.dname,'value'||rec.deptno);
    end loop;
    -- If you do not include the following statement, no output will appear
    htp.formselectclose;
    htp.formsubmit("'CALL DEPT'");
end;
/

```

### **Example 17**

```

create or replace procedure list is
p1 number;
begin
    htp.formOpen (owa_util.get_owa_service_path||'new_proc');
    -- the first section in the listprint procedure is the select statement
    -- then the parameter name that will be assigned a value when the user
    -- presses on the submit button
    -- the number of row that will appear in the list (its height)
    owa_util.listprint('select deptno, dname, null from dept','P1',2);
    htp.formsubmit("'submit'");
end;
/

```

### **Example 18**

```

create or replace procedure radio is
begin
    htp.formOpen (owa_util.get_owa_service_path||'new_proc');
    -- The above procedure will call new_proc when the submit button is pressed
    -- the following cursor will print Radio Elements as many times as there
    -- are record in the dept table
    -- the following will display three pop list to let you
    -- choose a day.
    -- owa_util.choose_date('date_name',sysdate);
    For rec in (select * from dept) loop
    --

```

```

-- The next statement will define a radio group called P1.
-- The value which will be passed when any element is selected
-- is rec.deptno
  htp.formradio('P1',rec.deptno);
  htp.print (rec.dname);
  htp.nl;
-- Note that when the SUBMIT button is pressed, the name of the RADIO
-- group (P1) and its value (rec.deptno) will be passed to the procedure defined in the htp.FORMOPEN
-- Therefore, the name of the RADIO should match the name of the parameter in
-- the procedure (p1 in our case)
--
end loop;
  htp.formsubmit("GO...."); -- Go here is the caption
  owa_util.showsource('RADIO');-- to display the source code on the browser
end;
/

```

### **Example 19**

```

create or replace procedure fixed_poplist is
begin
  htp.formOpen (owa_util.get_owa_service_path||'new_proc');
    -- the following will create a pick list with a name P1
  htp.formselectopen('P1','Pick a choice');

  --
  -- This example shows how to fill the poplist by static values
  htp.formselectoption('CáÍÇÆÑÉ CáÇæái','value=10');
  htp.formselectoption('CáÍÇÆÑÉ CáÈÇäíÉ','value=20');
  htp.formselectoption('CáÍÇÆÑÉ CáÈCáËÉ','value=30');
  htp.formselectclose;
  htp.print('</p><p>');
  htp.formsubmit("report");
end;
/

```

### **Example 20**

-- The first procedure will call the data entry screen

```

create or replace procedure data_Entry
  is
begin
  htp.formOpen (owa_util.get_owa_service_path||'dept_ins');
  htp.print ('Please enter the deptno ');

  --
  -- This create a text item on the form
  -- The name of the item is Dno, its width is 2 and accepts 2 char
  htp.formtext ('dno',2,2);
  htp.nl;
  htp.print (' Please enter Dept Name');
  htp.formtext('name',30,30);
  htp.nl;
  --
  -- When you submit, you are supposed to prepare a procedure
  -- Than will insert the entered values into the database.
  -- In this case, we will create a procedure called 'dept_ins'

```

```

    htp.formsubmit(",'INSERT');
    htp.Formclose;
-- Please NOTE that FORMCLOSE should appear as a last statement in
-- Form processing after the submit
end;
/

```

### **Example 21**

```

create or replace procedure data_passwd
is
begin
    htp.formOpen (owa_util.get_owa_service_path||'dept_ins');
    htp.print ('Please enter the deptno ');

    --
    -- This create a text item on the form
    -- The name of the item is Dno, its width is 2 and accepts 2 char
    htp.formtext ('dno',2,2);
    htp.nl;
    htp.print (' Please enter Dept Name');
    --
    -- This will create a text item, that will display *****
    -- to protect user entry information
    htp.formpassword('name',30,30);
    htp.nl;
    --
    -- When you submit, you are supposed to prepare a procedure
    -- Than will insert the entered values into the database.
    -- In this case, we will create a procedure called 'dept_ins'
    htp.formsubmit(",'INSERT');
    htp.Formclose;
    --
    -- Please NOTE that FORMCLOSE should appear as a last statement in
    -- Form processing after the submit
    end;
/

```

### **Example 22**

```

/* The first procedure will display all column for the table name
you specify when you call the procedure , the user should select
some column from a check box and call another procedure that will diplay
a table containing values of these column from the database */

```

```

create or replace procedure dynamic_table (the_table in char) is
cursor cols is select column_name from user_tab_columns
where table_name = upper (the_table);
begin
    htp.htmlopen;
    htp.headopen;
    htp.title('Query the'||the_table||'table');
    htp.headclose;
    htp.bodyopen;
    htp.formopen(owa_util.get_owa_service_path||'do_query');
    --
    -- assigning the parameter the_table to a variable called the_Table
    htp.formhidden('the_table',the_table);
    --
    -- assinging the value dummy to a new variable called COLS
    htp.formhidden('COLS','dummy');
    --

```

```

-- creating check box group
for crec in cols loop
  htp.formcheckbox('COLS',crec.column_name);
  htp.print(crec.column_name);
  htp.nl;
end loop;
htp.formssubmit(",'Execute Query");
-- when the submit is executed, the variables The_table and COL
-- are passed to the DO_QUERY procedure
owa_util.showsource('DYNAMIC_TABLE');
htp.htmlclose;
htp.bodyclose;
htp.htmlclose;
end;
/

/* This is the second procedure, it will accept the table name as a parameter
   and the selected Columns from the previous procedure. The selected column
   will appear as a string in the COLS array

*/
create or replace procedure do_query (the_table in varchar2,cols in owa_util.ident_arr) is
  column_list varchar2(32000);
  col_counter integer;
  ignore boolean;
begin
  col_counter :=2;
  loop
    -- This loop will extract the columns from the COLS area and add a comma
    -- between each column name
    column_list := column_list||cols(col_counter)||',';
    col_counter := col_counter+1;
  end loop;
  exception
    -- When the array can no longer fetch any new value, it will raise
    -- No data found. TO us it means that it fetched all column
    when no_data_found then
      --
      -- This substr is important to remove the last comma
      column_list := substr(column_list,1,length(column_list)-1);

    -- This is a standard OWA_UTIL to simply display a list for the chosen columns
    -- and their values from the TABLE specified in the first procedure
    ignore := owa_util.tableprint(the_table,'BORDER',owa_util.HTML_table,
      column_list);
  end;

  -- The second procedure is responsible for inserting the values

Create or replace procedure dept_ins (name in varchar2, dno in number) is
  begin
    htp.formOpen (owa_util.get_owa_service_path||'data_Entry');
    -- The following statement will cause the parameter that were passed

```

```
-- by the previous procedure (Data entry) to be inserted into the database
insert into dept (deptno, dname)
    values (dno,name);
http.formsubmit("'",'BACK');
end;
/
```

### **Example 23**

```
create or replace procedure the_list is
The_Table varchar2(200);
begin
http.formOpen (owa_util.get_owa_service_path||'dynamic_table');
owa_util.listprint('select table_name,table_name, null from user_tables','the_table',5);
-- The select statement show above will get table_names for existing
-- tables in the database
http.formsubmit("'",'COLS');
end;
/
```

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