create user apps identified by apps;

GRANT SYSDBA, RESOURCE , DBA , CREATE TABLE TO APPS;

*--*

create table

SYS.stats$user\_log

(

user\_id varchar2(30),

session\_id number(8),

host varchar2(30),

last\_program varchar2(48),

last\_action varchar2(32),

last\_module varchar2(32),

logon\_day date,

logon\_time varchar2(10),

logoff\_day date,

logoff\_time varchar2(10),

elapsed\_minutes number(8)

)

;

*---*

create or replace trigger

logon\_audit\_trigger

AFTER LOGON ON DATABASE

BEGIN

if user not in ('SYS','SYSTEM')

THEN

RAISE\_APPLICATION\_ERROR(-20011,'Not Allowed');

END;

insert into stats$user\_log values(

user,

sys\_context('USERENV','SESSIONID'),

sys\_context('USERENV','HOST'),

null,

null,

null,

sysdate,

to\_char(sysdate, 'hh24:mi:ss'),

null,

null,

null

);

END;

/

create or replace trigger

logoff\_audit\_trigger

BEFORE LOGOFF ON DATABASE

BEGIN

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

*-- Update the last action accessed*

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

update

stats$user\_log

set

last\_action = (select action from v$session where

sys\_context('USERENV','SESSIONID') = audsid)

where

sys\_context('USERENV','SESSIONID') = session\_id;

*--\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

*-- Update the last program accessed*

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

update

stats$user\_log

set

last\_program = (select program from v$session where

sys\_context('USERENV','SESSIONID') = audsid)

where

sys\_context('USERENV','SESSIONID') = session\_id;

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

*-- Update the last module accessed*

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

update

stats$user\_log

set

last\_module = (select module from v$session where

sys\_context('USERENV','SESSIONID') = audsid)

where

sys\_context('USERENV','SESSIONID') = session\_id;

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

*-- Update the logoff day*

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

update

stats$user\_log

set

logoff\_day = sysdate

where

sys\_context('USERENV','SESSIONID') = session\_id;

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

*-- Update the logoff time*

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

update

stats$user\_log

set

logoff\_time = to\_char(sysdate, 'hh24:mi:ss')

where

sys\_context('USERENV','SESSIONID') = session\_id;

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

*-- Compute the elapsed minutes*

*-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

update

stats$user\_log

set

elapsed\_minutes =

round((logoff\_day - logon\_day)\*1440)

where

sys\_context('USERENV','SESSIONID') = session\_id;

END;

*---*

*--ROLES*

CREATE ROLE APPS\_SELECT ;

CREATE ROLE APPS\_DELETE ;

CREATE ROLE APPS\_INSERT ;

CREATE ROLE APPS\_UPDATE ;

*--*

*--*