AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH

Advance Database Management System

Topic: Easy Store Management System

Section: C

### Group Name: Matrix

Group Member :

SL	Member Name	ID
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
Contents

Oracle Database:

Here we create an admin portal and for storing admin information we created this database 'Admin' in oracle.

					ADMIN					
Table	Data	Indexes	Model	Constraints	Grants	Statistics	UI Defaults	Triggers	Dependencies	SQL

Query | Count Rows | Insert Row

EDIT	A_ID	A_FNAME	A_LNAME	A_GENDER	A_EMAIL	A_PASSWORD	A_PHN	LOC_ID	AGE
	407	Fahim	Haldar	Male	fahim@gmail.com	123456Tr	01712343212	102	32
	408	Rhamat	Ullah	Male	rahmat@gmail.com	2345678Derr	01814567823	103	43
	410	Rahat	Alam	Male	rahat@gmail.com	Serty45678	01913245336	110	22
	420	Rezwan	Ahmed	Male	rezwan@gmail.com	lwtwW23334444	01913225336	120	40
	403	Farhana	Akter	Female	fariyaprity7@gmail.com	1234Wethdj	01913225336	105	21
	404	Fariya	Sultana	Female	prity.fariya.42889@gmail.com	We123456789	01744474123	106	23
	406	Forhad	Uddin	Male	forhad@gmail.com	Er12345678	01612345432	101	32

row(s) 1 - 7 of 7

Download

Here is our registration page

Registration

All Values are Required(*)

First Name: [Enter your first name] *

Last Name: [Enter your last name] *

Age: [Enter your age] *

City: [Enter your city] *

Street: [Enter your Street] *

Gender: ○ Male ○ Female ○ Others*

Phone Number: [Enter your phone number] *

Email: [Enter your email] *

Password: [Enter an strong password] *
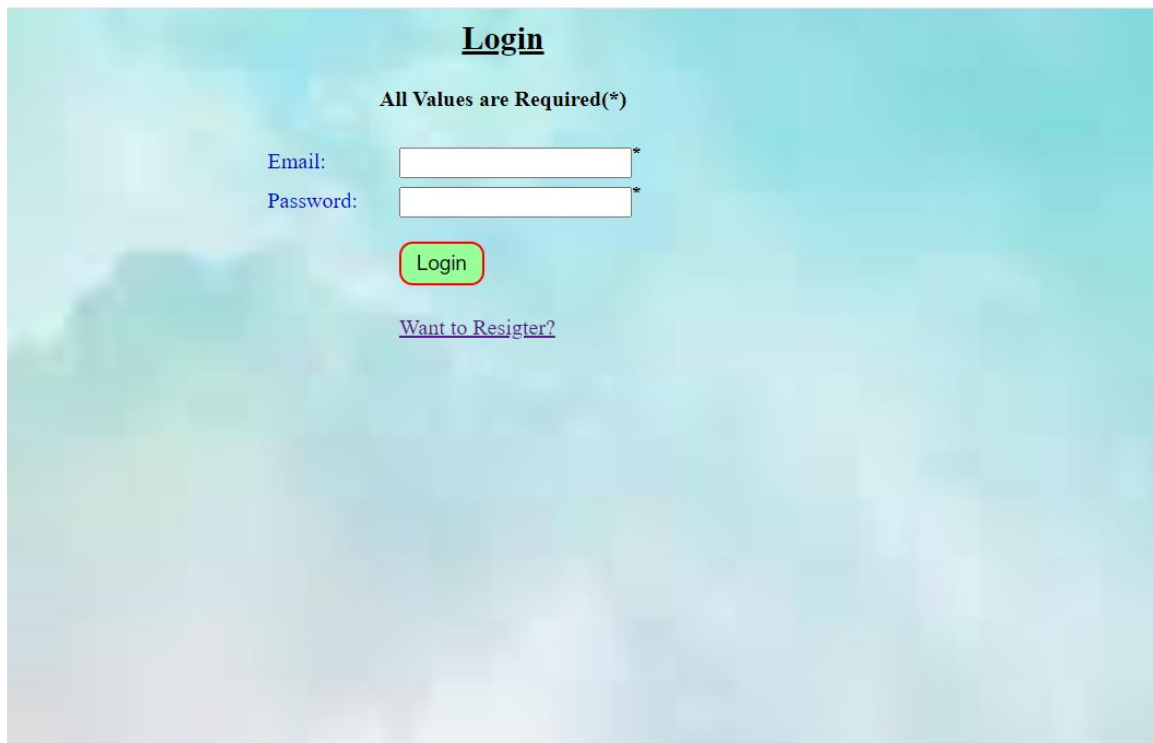
[Submit] [Reset]

Already Have an Account?

Login here

After register we have to login through this interface

Login

All Values are Required(*)

Email: [   ] *

Password: [   ] *

[Login]

Want to Resigter?

Admin portal:

After giving correct username and password we entered our admin portal.

Easy Store

Welcome

| Home | Sequence | Table | Searching | View | Procedural Function | Trigger | Logout |
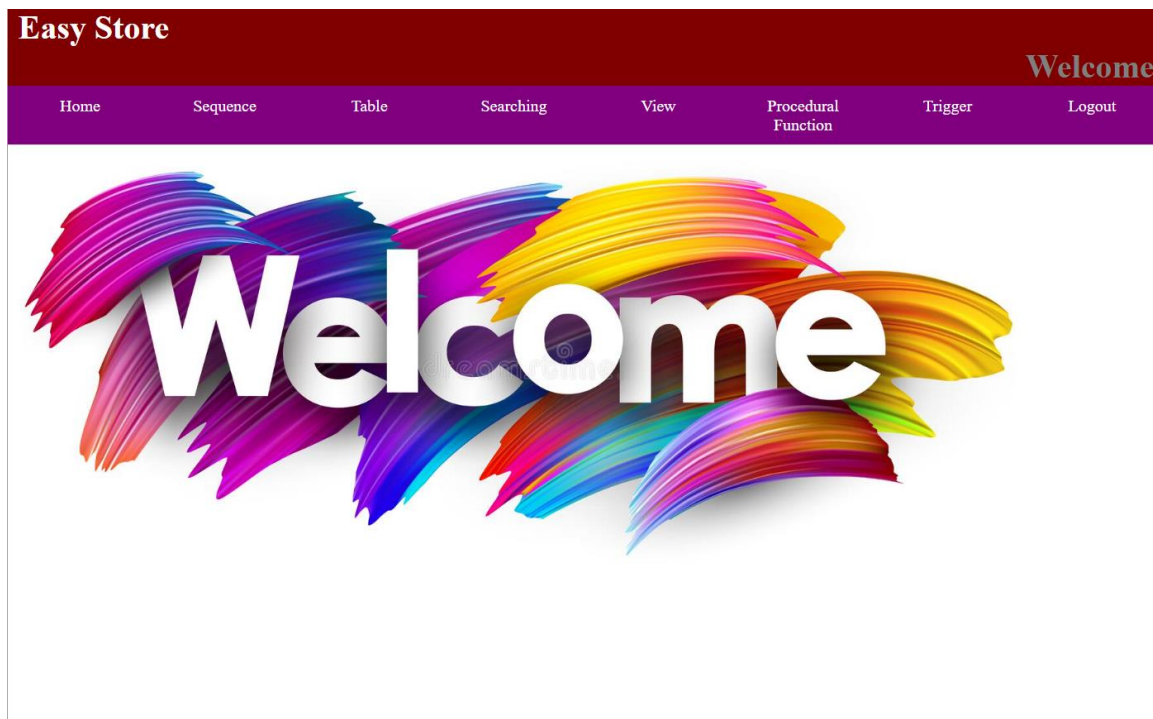
Interface Communicate with Database:

We created these table in previous and also input data in there
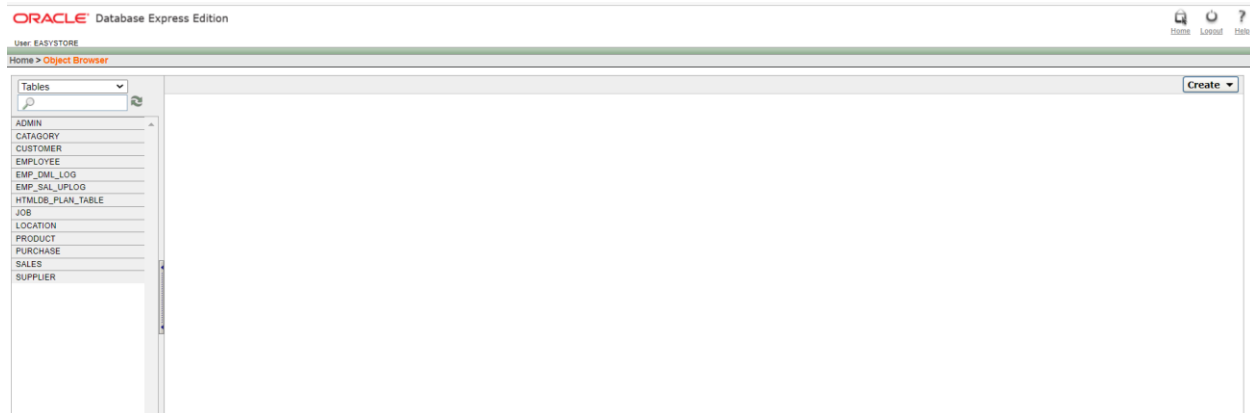
Now we will show this data in admin panel.

Easy Store

Welcome

| Home | Sequence | Table | Searching | View | Procedural Function | Trigger | Logout |

Table View From Oracle

Employee:

Employee Id	First Name	Last Name	Gender	Email	Password	Phone Number	Hiredate	Job Id	Location Id
301	Fariya	Nikolo	Male	martin@gmail.com	Er45256262gdgd	01615676543	28-SEP-04	204	106
302	Dayan	Hossen	Male	farid@gmail.com	1234543Wee	01912321232	17-DEC-80	201	101
303	Mohib	Hossen	Male	mohib@gmail.com	123weRggyyyy	01817902543	17-DEC-00	202	102
304	Nobir	Hossen	Male	nobir@gmail.com	123wfRggyyyy	01816902543	14-DEC-02	203	103
305	Khuku	Moni	Female	moni@gmail.com	123dfRggyyyy	01516902543	14-JUL-02	204	104

Admin:

Admin Id	First Name	Last Name	Gender	Email	Password	Phone Number	Location Id	Age
407	Fahim	Haldar	Male	fahim@gmail.com	123456Tr	01712343212	102	32
408	Rhamat	Ullah	Male	rahmat@gmail.com	2345678Derr	01814567823	103	43
410	Rahat	Alam	Male	rahat@gmail.com	Serty45678	01913245336	110	22
420	Rezwan	Ahmed	Male	rezwan@gmail.com	!wtwW23334444	01913225336	120	40
403	Farhana	Akter	Female	fariyaprity7@gmail.com	1234Wethdj	01913225336	105	21
404	Fariya	Sultana	Female	prity.fariya.42889@gmail.com	We123456789	01744474123	106	23
406	Forhad	Uddin	Male	forhad@gmail.com	Er12345678	01612345432	101	32

Job:

Job Id	Job Title	Salary
200	Cashier	20000
201	Manager	25000
203	Manager	20000
202	Manager	35000
204	Cashier	35000

Location:

Location Id	City	Street
131	werrt	ewedddf
100	Mohakhali	Chowrasta
101	Tongi	Hazibari
102	Tongi	Hazibari
120	Dhaka	Hazibari
110	Dhaka	Arambag
103	Tongi	Hazibari
104	Tongi	Hazibari
105	Tongi	Hazibari
106	Airport	Amtola

Product:

Product Id	Product Name	Quantity	Cost Price	Sell Price	Catagory Id
800	Bread	25	80	120	700
801	Soup	120	31	37	700
802	Foundation	12	450	600	701
803	Fan	32	220	250	702
804	Cheese	34	140	180	700

Catagory:

Catagory Id	Catagory Name
701	Skin Care
703	Jwelery
700	Grocery
702	Decor
704	beding

Searching and advance searching(sql):

We make some sql searching query to get some specific data from Oracle.

Easy Store   **Welcome**

Home	Sequence	Table	Searching	View	Procedural Function	Trigger	Logout

Searching Operation from oracle

Find all employees with their location and job details.

Employee Id	First Name	Last Name	Gender	Email	Password	Phone Number	Hiredate	Job Id	Location Id	Job Title	Salary	City	Street
302	Dayan	Hossen	Male	farid@gmail.com	1234543Wee	01912321232	17-DEC-80	201	101	Manager	25000	Tongi	Hazibari
304	Nobir	Hossen	Male	nobir@gmail.com	123wfRggyyyy	01816902543	14-DEC-02	203	103	Manager	20000	Tongi	Hazibari
303	Mohib	Hossen	Male	mohib@gmail.com	123weRggyyyy	01817902543	17-DEC-00	202	102	Manager	35000	Tongi	Hazibari
305	Khuku	Moni	Female	moni@gmail.com	123dfRggyyyy	01516902543	14-JUL-02	204	104	Cashier	35000	Tongi	Hazibari
301	Fariya	Nikolo	Male	martin@gmail.com	Er45256262gdgd	01615676543	28-SEP-04	204	106	Cashier	35000	Airport	Amtola

Find those employees and suppliers who live in same location.

Employee Name	Supplier Name	City	Street
Mohib	Mahmud	Tongi	Hazibari
Khuku	Mostafiz	Tongi	Hazibari

Find those products information and catagory information which sold the most.

Product Id	Product Name	Quantity	Cost Price	Sell Price	Catagory Id	Catagory Name
800	Bread	25	80	120	700	Grocery
803	Fan	32	220	250	702	Decor

Find out the second highest price's product details.

Product Id	Product Name	Quantity	Cost Price	Sell Price	Catagory Id
803	Fan	32	220	250	702

Find the employees who purchase products most.

Employee Id	First Name	Last Name	Gender	Email	Password	Phone Number	Hiredate	Job Id	Location Id
305	Khuku	Moni	Female	moni@gmail.com	123dfRggyyyy	01516902543	14-JUL-02	204	104

Find those employees whose city same as Farid and Salary same as Mohib.

Employee Id	First Name	Last Name	Gender	Email	Password	Phone Number	Hiredate	Job Id	Location Id	Job Title	Salary	City	Street

Find most junior employee's salary

Salary
25000

Find those products with catagory which have less cost price than Bread.

Product Id	Product Name	Quantity	Cost Price	Sell Price	Catagory Id	Catagory Name
801	Soup	120	31	37	700	Grocery

Find those maximum employees who join the same time.

Employee Id	First Name	Last Name	Gender	Email	Password	Phone Number	Hiredate	Job Id	Location Id
301	Fariya	Nikolo	Male	martin@gmail.com	Er45256262gdgd	01615676543	28-SEP-04	204	106
302	Dayan	Hossen	Male	farid@gmail.com	1234543Wee	01912321232	17-DEC-80	201	101
303	Mohib	Hossen	Male	mohib@gmail.com	123weRggyyyy	01817902543	17-DEC-00	202	102
304	Nobir	Hossen	Male	nobir@gmail.com	123wfRggyyyy	01816902543	14-DEC-02	203	103
305	Khuku	Moni	Female	moni@gmail.com	123dfRggyyyy	01516902543	14-JUL-02	204	104

Find the product which has maximum profit.

Product Id	Product Name	Quantity	Cost Price	Sell Price	Catagory Id
802	Foundation	12	450	600	701

Apply sequence in 2table:

We created 2 sequence for applying in 2 tables.
Sequence code:

```
CREATE SEQUENCE seq_customer
  MINVALUE 500
  MAXVALUE 9999999999999999999999999999
  START WITH 500
  INCREMENT BY 1
  CACHE 10;

CREATE SEQUENCE seq_loc
  MINVALUE 100
  MAXVALUE 9999999999999999999999999999
  START WITH 100
  INCREMENT BY 1
  CACHE 10;
```

Customer insertion

Fisrt Name: [_____]

Last Name: [_____]

Phone Number: [_____]

[Register]

Location insertion

City: [_____]

Street: [_____]

[Register]

Here We didn't give insert id for customer and location table. That will insert automatically through sequence.

View:

In here we created 4 views.

1. Create a view sales_view for showing sales information with customer and product details.
Ans:create view sales_view as select s.sales_id,p.p_name,s.quantity,p.sell_price,s.total_amount,c.c_fname,c.c_lname,c.c_phn from sales s, product p, customer c where s.p_id=p.p_id and s.c_id=c.c_id;

2.Create a view product_discount based on product table to get 5% discount for all products.
Ans:create view product_discount as select p_id, p_name, quantity, cost_price, sell_price, (sell_price*0.05) as discount from product;

3. Create a view manager_new_salary based on job table to get 15% salary increase for manager.
Ans:create view manager_new_salary as select job_id,job_title, (salary+salary*0.15) as New_Salary from job where job_title='Manager';

4. Create a view supplier_company for showing supplier companies location details.
Ans:create view supplier_company as select s.company_name,l.city,l.street from supplier s,location l where s.loc_id=l.loc_id;

| Home | Sequence | Table | Searching | View | Procedural Function | Trigger | Logout |

View

Create a view sales_view for showing sales information with customer and product details.

Sales Id	Product Name	Quantity	Sale Price	Total Amount	Customer First Name	Last Name	Phone Number
1000	Bread	4	120	480	Muktar	Hossain	01915674534
1001	Soup	2	37	74	Azad	Ahmed	01714534234
1002	Foundation	1	600	600	Hasibur	Rahman	01514565434
1003	Fan	4	250	1000	Nabila	Akter	01614354345
1004	Cheese	3	180	540	Rufayda	Hauqe	01513454323
1	Foundation	2	600	1	Hasibur	Rahman	01514565434
1	Foundation	1	600	1	Hasibur	Rahman	01514565434

Create a view product_discount based on product table to get 5% discount for all products.

Product Id	Product Name	Quantity	Cost Price	Sell Price	Discount
800	Bread	25	80	120	6
801	Soup	120	31	37	1.85
802	Foundation	12	450	600	30
803	Fan	32	220	250	12.5
804	Cheese	34	140	180	9

Create a view manager_new_salary based on job table to get 15% salary increase for manager.

Job Id	Job Title	Salary
201	Manager	28750
203	Manager	23000
202	Manager	40250

Create a view supplier_company for showing supplier companies location details.

Company name	City	Sreet
Fresh Mart	Tongi	Hazibari
ABC	Tongi	Hazibari
Dreamy	Tongi	Hazibari
Skin Lab	Tongi	Hazibari
Cartiar	Dhaka	Arambag

Procedural and Function:

We created 3 packages and in this packages we created total 3 procedures and 4 functions and so many exceptions.

create or replace package easy_store1 as
procedure emp_sal_up(eno employee.e_id%type,esal job.salary%type);
end easy_store1;

create or replace package body easy_store1
as

function validEmpId(eno in employee.e_id%type)
return boolean

```
is
eid_count employee.e_id%type;
begin
select count(*) into eid_count from employee where e_id=eno;
if eid_count=0 then
return false;
else return true;
end if;
end validEmpId;


procedure emp_sal_up(eno employee.e_id%type,esal job.salary%type)
is
jid job.job_id%type;
inval_emp exception;
begin

if validEmpId(eno) then
select job.job_id into jid from employee,job where employee.job_id=job.job_id and
employee.e_id=eno;
update job set salary=esal where job_id=jid;
else
raise inval_emp;
end if;
exception
when inval_emp then
raise_application_error(-20202,'Employee does not exist!');
when others then
raise_application_error(-20202,'Something went wrong');
end emp_sal_up;


end easy_store1;



**********************************************************************************************************


create or replace package easy_store3 as
procedure insert_sale(sid sales.sales_id%type,pid sales.p_id%type,qan sales.quantity%type,eid
sales.e_id%type,cid sales.c_id%type,tamount sales.total_amount%type);
end easy_store3;


create or replace package body easy_store3
```

as

```
function isValidCustomerId(cid in customer.c_id%type)
return boolean
is
cid_count sales.c_id%type;
begin
select count(*) into cid_count from customer where c_id=cid;
if cid_count=0 then
return false;
else return true;
end if;
end isValidCustomerId;

function validEmpId(eno in employee.e_id%type)
return boolean
is
eid_count employee.e_id%type;
begin
select count(*) into eid_count from employee where e_id=eno;
if eid_count=0 then
return false;
else return true;
end if;
end validEmpId;

function validProId(pno in product.p_id%type)
return boolean
is
pid_count product.p_id%type;
begin
select count(*) into pid_count from product where p_id=pno;
if pid_count=0 then
return false;
else return true;
end if;
end validProId;

function haveProductQuantity(pno in product.p_id%type,quan in product.quantity%type)
return boolean
is
quant product.quantity%type;
begin
```

```
select quantity into quant from product where p_id=pno;
if quant<quan then
return false;
else return true;
end if;
end haveProductQuantity;

procedure insert_sale(sid sales.sales_id%type,pid sales.p_id%type,qan sales.quantity%type,eid
sales.e_id%type,cid sales.c_id%type,tamount sales.total_amount%type)
is
inval_sid exception;
inval_pro exception;
inval_qan exception;
inval_eid exception;
inval_cid exception;

begin
if sid <=0 then
raise inval_sid;
elsif validProId(pid) = FALSE then
raise inval_pro;
elsif haveProductQuantity(pid,qan)= FALSE then
raise inval_qan;
elsif validEmpId(eid)= FALSE then
raise inval_eid;
elsif isValidCustomerId(cid)= FALSE then
raise inval_cid;
else
insert into sales values(sid,pid,qan,eid,cid,tamount);
end if;
exception
when inval_sid then
raise_application_error(-20202,'Invalid Saled Id!');
when inval_pro then
raise_application_error(-20202,'Porduct does not exist!');
when inval_qan then
raise_application_error(-20202,'Product quantity does not available!');
when inval_eid then
raise_application_error(-20202,'Employee id does not exist!');
when inval_cid then
raise_application_error(-20202,'Customer Id does not exist!');
when others then
raise_application_error(-20202,'Something went wrong');
end insert_sale;
```

```
end easy_store3;
```
****
```
create or replace package easy_store2 as
procedure delete_customer(cid customer.c_id%type);
end easy_store2;

create or replace package body easy_store2
as
function isValidCustomerId(cid in customer.c_id%type)
return boolean
is
cid_count sales.c_id%type;
begin
select count(*) into cid_count from customer where c_id=cid;
if cid_count=0 then
return false;
else return true;
end if;
end isValidCustomerId;

function isAvailableCustomerForSale(cid in sales.c_id%type)
return boolean
is
cid_count sales.c_id%type;
begin
select count(*) into cid_count from sales where c_id=cid;
if cid_count=0 then
return false;
else return true;
end if;
end isAvailableCustomerForSale;

procedure delete_customer(cid customer.c_id%type)
is
inval_cus exception;
availableCustomerForSale exception;

begin
if isAvailableCustomerForSale(cid) then
raise availableCustomerForSale;
elsif isValidCustomerId(cid) then
delete from customer where c_id=cid;
else
```

raise inval_cus;
end if;
exception
when availableCustomerForSale then
raise_application_error(-20202,'Customer is already included for sales invoice');
when inval_cus then
raise_application_error(-20202,'Customer does not exists!');
when others then
raise_application_error(-20202,'Something went wrong');
end delete_customer;

end easy_store2;

Trigger:

We created 4 trigger in oracle:

```
1. Insert a negative value of product quantity to check trigger
```
.
Answer:
create or replace trigger purchase_quantity_trigger
before insert or update of quantity on purchase
for each row
begin
if :new.quantity <0
then raise_application_error(-20201,'Product Quantity can't be negative');
end if;
end;

```
2. Creating a trigger to automatically store employee  salary update information
in a table to identify when and how much salary increased
```

Answer:

```
create table emp_sal_uplog(

 eno number not null,
 old_sal varchar(20) not null,
 new_sal varchar(20) not null,
 datee date not null
);

create or replace trigger emp_sal_up
after update of salary on job
for each row
Begin
insert into emp_sal_uplog values(:old.job_id,:old.salary,:new.salary,sysdate);
end;
```

3. Creating a trigger to automatically check employee table to identify when, who and what operations done in this table.
Answer:

```
create table emp_dml_log(

 user_name varchar(100) not null,
 opt_name varchar(100) not null,
 opt_date date not null


);
create or replace trigger emp_dml
after insert or update or delete on employee
declare
o_name varchar(30);
begin
if inserting then
o_name:= 'insert operation done';
elsif updating then
o_name:= 'update operation done';
elsif deleting then
o_name:= 'delete operation done';
end if;
insert into emp_dml_log VALUES(user, o_name, sysdate);
end;
```

4. `Creating a trigger to check that DML operation can't be happened/done on sales table after office hour.`

Answer:
create or replace trigger sales_secure
before insert or update or delete on sales
begin
if to_char(sysdate,'DY') in ('FRI','SAT')
or to_char(sysdate,'HH24') not between '08' and '17' then
raise_application_error(-20201, 'Sorry try again later in office hour');
end if;
end;

Easy Store

Welcome

Home	Sequence	Table	Searching	View	Procedural Function	Trigger	Logout

Trigger Operation

Insert a negative value of product quantity to check trigger

Purchase ID: [   ]   Add Negative Quantity: [   ]

Submit

Creating a trigger to automatically store employee salary update information in a table to identify when and how much salary increased

Job ID: [   ]   New Salary: [   ]

Submit

Creating a trigger to automatically check employee table to identify when, who and what operations done in this table.

Employee ID: [   ]   Fisrt Name: [   ]

Submit

Creating a trigger to check that DML operation can't be happened/done on sales table after office hour.

Sales ID: [   ]   Updated Quantity: [   ]

Submit

emp_dml_log table:

Database User	Operation name	Operation Date
EASYSTORE	update operation done	23-AUG-22
EASYSTORE	update operation done	23-AUG-22
EASYSTORE	update operation done	23-AUG-22

emp_sal_uplog table:

Employee ID	Old Salary	New Salary	Date
201	40000	23000	23-AUG-22
201	23000	25000	23-AUG-22

Warning: oci_execute(): ORA-20201: Product Quantity can?t be negative ORA-06512: at "EASYSTORE.PURCHASE_QUANTITY_TRIGGER", line 3 ORA-04088: error during execution of trigger 'EASYSTORE.PURCHASE_QUANTITY_TRIGGER' in **C:\xampp\htdocs\EasyStore_DatabaseProject\Model\TriggerModel.php** on line **6**
trigger mission done