

## CHOCOLATE STORE DATA MANAGEMENT SYSTEM

A chocolate store has four departments (Management, Sales, Cashier and Packaging)

The store provide sailing and packaging the chocolate items for customers .by taking the order by sales employees, then purchasing by cashier employees and packaging the chocolate by specified employees .

The chocolate store management system records and organizes the employees' work.

The system provides control and management in an organized way.

Recording the data of customers and shopping

Recording the work of each employee in his department.

Can access to the details of customers payments.

Can access to the employees, customers information.

## Tables

1. Department (deptid ,deptname,phone,empid)

deptid	deptname	phone	empid
101	Managment	1321321	11011
201	sales	1321321	22011
301	cashier	1321321	33011
401	packaging	5321321	44011

2. Employees (empid ,empFname,empLname,gender,empphone,bday,empsalary,deptid,bossid)
  - a. fk\_employees\_department foreign key (deptid)
  - b. fk\_employees\_boss foreign key (bossid)

empid	empFname	empLname	gender	empphone	bday	empsalary	deptid	bossid
11011	AK	Ma	M	3478596	1990-10-10	1200	101	NULL
22011	Ka	Na	M	3078547	1980-10-17	1000	101	11011
22021	Ni	Ra	F	3004267	1985-11-03	750	201	22011
22022	Sa	Ra	F	3960377	1985-11-03	700	201	22011
33011	Ni	Ka	F	3478596	1990-10-10	1200	101	11011
33021	El	Ha	M	3303168	1993-02-10	700	301	33011
33022	La	Yo	F	70891737	1998-11-30	700	301	33011
44011	Ba	SO	F	3012036	1990-10-10	1200	101	11011
44021	Ha	Ch	M	81308888	1993-02-10	750	401	44011
44022	Ly	Gh	F	3897887	1998-11-30	600	401	44011
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

3. Customer (custid,custFname,custLname,custphone,bday,adress)

custid	custFname	custLname	custphone	bday	adress
666601	Ma	To	72563478	1978-10-18	Ras nabeh
666602	Ri	Ta	81776682	1998-07-08	Barbir
666603	Da	Ks	76957135	1990-03-28	Karm zeitoun
777701	Mi	Ma	2786417	1988-12-01	Elsayfi
777702	Hr	Md	3978478	1996-02-18	Hamra
777703	Ve	So	1131197	1980-06-13	Dawra
888801	Sa	St	7987256	1992-05-06	zaydenye
888802	al	Az	3787851	1978-10-18	hadath

4. Category (catname,price)

catname	price
Chocolate a la taza	19
Couverture milk chocolate	12
Dark chocolate	15
flakes chocolate	20
Skimmed milk chocolate	18
vermicelli chocolate	12
white chocolate	10
NULL	NULL

5. Chocolate (chocolate\_id,chocolate\_name,catname)
  - a. fk\_chocolate\_category foreign key (catname)

chocolate_id	chocolate_name	catname
123123	Darkonito	Dark chocolate
156156	flakesnito	flakes chocolate
189189	vermina	vermicelli chocolate
423423	Couvertito	Couverture milk chocolate
456456	taza-coco	Chocolate a la taza
489489	white-coco	white chocolate
723723	ski-ski	Skimmed milk chocolate
NULL	NULL	NULL

6. Order\_list (OL\_id,OL\_nb,custid,OL\_date,empid,chocolate\_id)
  - a. fk\_Order\_list\_customer foreign key (custid)
  - b. fk\_Order\_list\_employees foreign key (empid)
  - c. fk\_Order\_list\_chocolate foreign key (chocolate\_id)

OL_id	OL_nb	custid	OL_date	empid	chocolate_id
99701	1	666601	2020-10-05	22021	123123
99701	2	666601	2020-10-05	22021	489489
99702	1	666602	2020-10-08	22021	156156
99703	1	666603	2020-10-11	22021	189189
99704	1	777701	2020-10-18	22021	423423
99705	1	777702	2020-10-20	22022	456456
99705	2	777702	2020-10-20	22022	189189
99706	1	777703	2020-10-25	22022	489489
99707	1	888801	2020-10-25	22022	723723
99708	1	888802	2020-10-29	22022	489489
99708	2	888802	2020-10-29	22022	723723
NULL	NULL	NULL	NULL	NULL	NULL

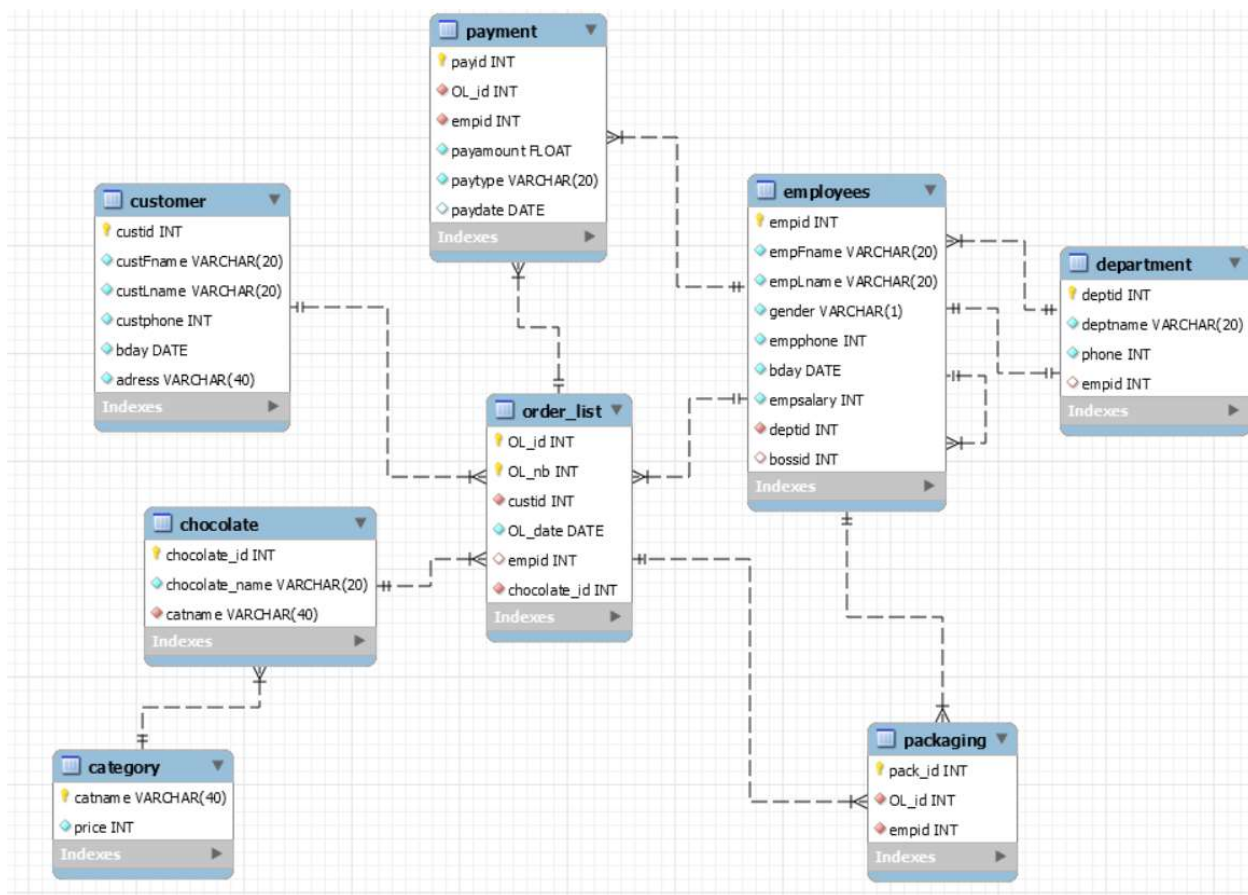
7. Payment (payid,OL\_id,empid,payamount,paytype,paydate)
  - a. fk\_payment\_employees foreign key (empid)
  - b. fk\_payment\_Order\_list foreign key (OL\_id)

payid	OL_id	empid	payamount	paytype	paydate
81015124	99701	33021	25	Cash	2020-10-05
81015876	99702	33021	20	Cash	2020-10-08
81016120	99703	33021	12	Visa	2020-10-11
81016287	99704	33021	12	Cash	2020-10-18
81016480	99705	33022	31	Visa	2020-10-20
81016521	99706	33022	10	Cash	2020-10-25
81016685	99707	33022	18	Visa	2020-10-25
81016770	99708	33022	28	Cash	2020-10-29
NULL	NULL	NULL	NULL	NULL	NULL

8. Packaging (pack\_id,OL\_id,empid)
  - a. fk\_packaging\_employees foreign key (empid)
  - b. fk\_packaging\_Order\_list foreign key (OL\_id)

pack_id	OL_id	empid
31101	99701	44021
31105	99702	44021
31107	99703	44021
31109	99704	44021
31112	99705	44022
31113	99706	44022
31115	99707	44022
31120	99708	44022

## Diagram



## Queries

1. Report the customers who have spent more than 20 \$

```
select distinct CUS.custFname,OL.OL_id ,PAY.payamount
from customer CUS, order_list OL ,payment PAY
where OL.custid=CUS.custid and PAY.OL_id=OL.OL_id and PAY.payamount>20 ;
```

custFname	OL_id	payamount
Ma	99701	25
Hr	99705	31
al	99708	28

2. Report the name and department name of employees and boss name for each sales .

```
select OL.OL_id,OL.empid,EMP.empFname,EMP.empLname,dept.deptname ,EMP.bossid
,boss.empFname
from order_list OL,employees EMP,department dept ,employees boss
where EMP.empid=OL.empid and EMP.deptid=dept.deptid and boss.empid=dept.empid;
```

OL_id	empid	empFname	empLname	deptname	bossid	empFnam
99701	22021	Ni	Ra	sales	22011	Ka
99701	22021	Ni	Ra	sales	22011	Ka
99702	22021	Ni	Ra	sales	22011	Ka
99703	22021	Ni	Ra	sales	22011	Ka
99704	22021	Ni	Ra	sales	22011	Ka
99705	22022	Sa	Ra	sales	22011	Ka
99705	22022	Sa	Ra	sales	22011	Ka
99706	22022	Sa	Ra	sales	22011	Ka
99707	22022	Sa	Ra	sales	22011	Ka
99708	22022	Sa	Ra	sales	22011	Ka
99708	22022	Sa	Ra	sales	22011	Ka

3. Report the name and id of Customer who's buying chocolate with milk.

```
select CUS.custid,CUS.custFname,CUS.custLname ,CC.chocolate_id, CC.catname
from customer CUS,chocolate cc ,order_list OL
where CC.chocolate_id=OL.chocolate_id and OL.custid=CUS.custid and CC.catname regexp 'milk';
```

custid	custFname	custLname	chocolate_id	catname
777701	Mi	Ma	423423	Couverture milk chocolate
888801	Sa	St	723723	Skimmed milk chocolate
888802	al	Az	723723	Skimmed milk chocolate

4. List the names of the employees who earn more than salary avg

```
select EMP.empFname,EMP.empsalary,DT.deptname
from employees EMP, department DT
where EMP.deptid=DT.deptid and EMP.empsalary > ( select avg(empsalary) from employees);
```

empFname	empsalary	deptname
AK	1200	Managment
Ka	1000	Managment
Ni	1200	Managment
Ba	1200	Managment

5. Report the Sum amount of order list do by sales from maximum to minimum

```
select EMP.empFname,dept.deptname,sum(PAY.payamount)as "Max amount"
from employees EMP,department dept,payment PAY, order_list OL
where OL.OL_id=PAY.OL_id and EMP.empid=OL.empid and EMP.deptid=dept.deptid
group by(EMP.empid)
order by (sum(PAY.payamount)) DESC;
```

empFname	deptname	Max amount
Sa	sales	146
Ni	sales	94

6. Report the count of different names of chocolate packged .

```
Select dept.deptname,CC.chocolate_name,count(CC.chocolate_id) as 'nb pf chocolate'
from employees EMP , order_list OL , department dept, chocolate CC ,packaging
where packaging.OL_id=OL.OL_id and OL.chocolate_id=CC.chocolate_id and
EMP.empid=packaging.empid and EMP.deptid=dept.deptid
group by (CC.chocolate_name);
```

deptname	chocolate_name	nb pf chocolate
packaging	Darkonito	1
packaging	flakesnito	1
packaging	vermina	2
packaging	Couvertito	1
packaging	taza-coco	1
packaging	white-coco	3
packaging	ski-ski	2



7. Report phone number of customers buy white-coco exist in address Dawra

```

Select OL.OL_id , OL.custid , CUS.custFname ,CUS.custphone
from order_list OL, customer CUS ,chocolate CC
where CUS.custid=OL.custid and OL.chocolate_id=CC.chocolate_id and chocolate_name='white-coco'
and EXISTS (SELECT * FROM customer CUS
WHERE CUS.adress='Dawra' );

```

OL_id	custid	custFname	custphone
99701	666601	Ma	72563478
99706	777703	Ve	1131197
99708	888802	al	3787851

8. Create view of all the sales

```

CREATE VIEW sales AS
select distinct CUS.custid,CUS.custFname , CUS.custLname,Emp.empid,PAY.payamount as "total
amount",PAY.paydate,PAY.paytype
from (((order_list OL
inner join customer CUS on OL.custid=CUS.custid )
inner join employees EMP on OL.empid=EMP.empid)
inner join payment PAY on OL.OL_id=PAY.OL_id) ;

```

custid	custFname	custLname	empid	total amount	paydate	paytype
666601	Ma	To	22021	25	2020-10-05	Cash
666602	Ri	Ta	22021	20	2020-10-08	Cash
666603	Da	Ks	22021	12	2020-10-11	Visa
777701	Mi	Ma	22021	12	2020-10-18	Cash
777702	Hr	Md	22022	31	2020-10-20	Visa
777703	Ve	So	22022	10	2020-10-25	Cash
888801	Sa	St	22022	18	2020-10-25	Visa
888802	al	Az	22022	28	2020-10-29	Cash

9. Report name and id of customers and employees of sales, packing and cashiers for the same order

```

select dept.deptname ,EMP.empid,EMP.empfname,EMP.emplname , CUS.custid ,
CUS.custFname,CUS.custLname
from customer CUS , order_list OL ,employees EMP, department dept
where CUS.custid=OL.custid and EMP.empid=OL.empid and dept.deptid=EMP.deptid

```

UNION

```

select dept.deptname ,EMP.empid,EMP.empfname,EMP.emplname , CUS.custid ,
CUS.custFname,CUS.custLname
from customer CUS , order_list OL ,employees EMP, department dept ,payment Pay
where CUS.custid=OL.custid and OL.OL_id=PAY.OL_id and EMP.empid=PAY.empid and
dept.deptid=EMP.deptid

```

## UNION

```
select dept.deptname ,EMP.empid,EMP.empfname,EMP.emplname , CUS.custid ,
CUS.custFname,CUS.custLname
from customer CUS , order_list OL ,employees EMP, department dept ,packaging PK
where CUS.custid=OL.custid and OL.OL_id=PK.OL_id and EMP.empid=PK.empid and
dept.deptid=EMP.deptid
ORDER BY custid ;
```

deptname	empid	empfname	emplname	custid	custFname	custLname
sales	22021	Ni	Ra	666601	Ma	To
cashier	33021	El	Ha	666601	Ma	To
packaging	44021	Ha	Ch	666601	Ma	To
sales	22021	Ni	Ra	666602	Ri	Ta
cashier	33021	El	Ha	666602	Ri	Ta
packaging	44021	Ha	Ch	666602	Ri	Ta
sales	22021	Ni	Ra	666603	Da	Ks
cashier	33021	El	Ha	666603	Da	Ks
packaging	44021	Ha	Ch	666603	Da	Ks
sales	22021	Ni	Ra	777701	Mi	Ma
cashier	33021	El	Ha	777701	Mi	Ma
packaging	44021	Ha	Ch	777701	Mi	Ma
sales	22022	Sa	Ra	777702	Hr	Md
cashier	33022	La	Yo	777702	Hr	Md
packaging	44022	Ly	Gh	777702	Hr	Md
sales	22022	Sa	Ra	777703	Ve	So
cashier	33022	La	Yo	777703	Ve	So
packaging	44022	Ly	Gh	777703	Ve	So
sales	22022	Sa	Ra	888801	Sa	St
cashier	33022	La	Yo	888801	Sa	St
packaging	44022	Ly	Gh	888801	Sa	St
sales	22022	Sa	Ra	888802	al	Az
cashier	33022	La	Yo	888802	al	Az
packaging	44022	Ly	Gh	888802	al	Az

10. Update the costperday increace 30% for mini-tricycle

update category

SET price = price\*1.3

where catname ='Dark chocolate';

▶ Dark chocolate	15	➔	▶ Dark chocolate	20
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## **Improvement**

All data related to the shop, personnel, customers, packaging and sales can be saved by the established system.

By reacting efficiently to several queries reviewed, it has proven its effectiveness.

The data management system makes it easier to access any records, as it offers the best monitoring and control of all the events in the shop.