Clothing Entrepreneurship

Sahil Upadhyay 13503865 B13

Shashank Gupta 13503888 B13

Problem Statement

Clothing Entrepreneurship

holds information regarding the raw material that goes to the factories, clothes sent to showrooms from factories, customer and employee records as well as the feedback records from the customers. It is used to store the information about the entire business setup.

We have designed a swing consisting of different jFrames for viewing the information for all the entities, inserting values into them, deleting a desired value if required and also for executing various queries running on our database. There is a login page which requires username and password to login. The flow of control from one JFrame to another is controlled using jButtons in java.

In our clothing Entrepreneurship project apart from entering information for various employees, customers, factories, showrooms, clothes and raw material through insert statements we can also view the information for these fields. We also have provision for the deletion of an employee record as well as a cloth record; in case it is sold to a customer it needs to be deleted from the showroom.

Our interface also includes certain queries to find out some vital information. For example, we have a query to find which factory transports clothes to maximum number of showrooms, what are the details of such showrooms, how to find clothes in a particular price range and also to find the maximum and average price of a cloth in a showroom. All these tasks have been achieved using stored procedures with and without cursors.

Lastly some triggers have been included to perform background tasks like providing hike in salary to an employee giving a good service and deleting cloth details if it is sold. In this way the project establishes a complete ownership and hence clothing entrepreneurship.

Original EER to Relational Mapping

T1 (Fac\_id, Owner, Name, Area, Workers, Address, Capacity, Cloth\_id, Emp\_id)

T2 (Raw\_id, Quality, Price, Quantity)

T3 (Fac\_id, Raw\_id)

T4 (Raw\_id, Show\_id, Trans\_id, Charges, Type)

T5 (City\_id, City, Show\_id, Fac\_id)

T6 (Name, Email, Comments, Cust\_id)

T7 (Cust\_id, Paymode, Total, City, Email, Name, Cloth\_id)

T8 (Cust\_id, Phno)

T9 (Show\_id, Name, Owner, Workers, Address, Quantity, Cloth\_id, Emp\_id)

T10 (Cloth\_id, Size, Price, Material, Colour, Gender)

T11 (Emp\_id, Name, Address, Salary, Age, Dept\_id, Dept\_name, Head)

Functional Dependencies used for Normalization

Fac\_id 🡪 Owner, Name, Workers, Address, Capacity

Fac\_id 🡪 Raw\_id, Cloth\_id, Emp\_id

Raw\_id 🡪 Quality, Price, Quantity, Trans\_id, Charges, Type

Raw\_id 🡪 Show\_id

City\_id 🡪 City, Show\_id, Fac\_id

Cust\_id 🡪 Name, Email, Comments, Paymode, Total

Cust\_id 🡪 Cloth\_id, Emp\_id, City\_id

Show\_id 🡪 Name, Address, Workers, Quantity

Show\_id 🡪 Cloth\_id, Emp\_id

Cloth\_id 🡪 Price, Material, Size, Gender, Colour

Cloth\_id 🡪 City\_id

Emp\_id 🡪 Name, Address, Salary, Age, Dept\_id

Dept\_id 🡪 Name, Head

Showroom\_name 🡪 Owner

Normalized relations till BCNF

T1 (Fac\_id, Owner, Name, Workers, Address, Capacity)

T2 (Fac\_id, Emp\_id)

T3 (Fac\_id, Cloth\_id)

T4 (Raw\_id, Quality, Price, Quantity)

T5 (Fac\_id, Raw\_id)

T6 (Raw\_id, Show\_id)

T7 (Raw\_id, Trans\_id, Charges, Type)

T8 (City\_id, City)

T9 (City\_id, Show\_id)

T10 (City\_id, Fac\_id)

T11 (Name, Email, Comments, Cust\_id)

T12 (Cust\_id, Paymode, Email, Name, Total)

T13 (Cust\_id, Cloth\_id)

T14 (Show\_id, Name, Address, Workers, Quantity)

T15 (Show\_id, Cloth\_id)

T16 (Show\_id, Emp\_id)

T17 (Cloth\_id, Price, Material)

T18 (Cloth\_id, Size, Gender)

T19 (Cloth\_id, Colour)

T20 (Emp\_id, Name, Address, Salary, Age, Dept\_id)

T21 (Dept\_id, Name, Head)

T22 (Cloth\_id, City\_id)

T23 (Cust\_id, City\_id)

T24 (Show\_name, Owner)

DDL Structure

SQL> create table t1

2 (

3 fac\_id varchar2(10) primary key,

4 owner varchar2(20),

5 name varchar2(20),

6 address varchar2(20),

7 workers integer,

8 capacity integer

9 );

Table created.

SQL> create table t4

2 (

3 raw\_id varchar2(10) primary key,

4 quality varchar2(20),

5 price integer,

6 quantity integer

7 );

Table created.

SQL> create table t12

2 (

3 cust\_id varchar2(10) primary key,

4 paymode varchar2(20),

5 email varchar2(20),

6 name varchar2(20),

7 total integer

8 );

Table created.

SQL> create table t14

2 (

3 show\_id varchar2(10) primary key,

4 name varchar2(20),

5 address varchar2(20),

6 workers integer,

7 quantity integer,

8 constraint fk\_t14 foreign key (name) references t24(name)

9 );

Table created.

SQL> create table t17

2 (

3 cloth\_id varchar2(10) primary key,

4 price integer,

5 material varchar2(20)

6 );

Table created.

SQL> create table t21

2 (

3 dept\_id varchar2(10) primary key,

4 name varchar2(20),

5 head varchar2(20)

6 );

Table created.

SQL> create table t20

2 (

3 emp\_id varchar2(20) primary key,

4 name varchar2(20),

5 address varchar2(20),

6 salary integer,

7 age integer,

8 dept\_id varchar2(10),

9 constraint fk\_t20 foreign key (dept\_id) references t21(dept\_id)

10 );

Table created.

SQL> create table t18

2 (

3 cloth\_id varchar2(10),

4 cloth\_size varchar2(20),

5 gender varchar2(20),

6 constraint pk\_t18 primary key (cloth\_id,cloth\_size,gender),

7 constraint fk\_t18 foreign key (cloth\_id) references t17(cloth\_id)

8 );

Table created.

SQL> create table t19

2 (

3 cloth\_id varchar2(10),

4 colour varchar2(20),

5 constraint pk\_t19 primary key (cloth\_id,colour),

6 constraint fk\_t19 foreign key (cloth\_id) references t17(cloth\_id)

7 );

Table created.

SQL> create table t24

2 (

3 name varchar2(20) primary key,

4 owner varchar2(20)

5 );

Table created.

SQL> create table t8

2 (

3 city\_id varchar2(10) primary key,

4 city varchar2(20)

5 );

Table created.

SQL> create table t16

2 (

3 show\_id varchar2(10),

4 emp\_id varchar2(10),

5 constraint pk\_t16 primary key (show\_id,emp\_id),

6 constraint fk\_t16 foreign key (show\_id) references t14(show\_id),

7 constraint fk\_t16\_1 foreign key (emp\_id) references t20(emp\_id)

8 );

Table created.

SQL> create table t22

2 (

3 cloth\_id varchar2(10),

4 city\_id varchar2(10),

5 constraint pk\_t22 primary key (cloth\_id,city\_id),

6 constraint fk\_t22 foreign key (cloth\_id) references t17(cloth\_id),

7 constraint fk\_t22\_1 foreign key (city\_id) references t8(city\_id)

8 );

Table created.

SQL> create table t23

2 (

3 cust\_id varchar2(10),

4 city\_id varchar2(10),

5 constraint pk\_t23 primary key (cust\_id,city\_id),

6 constraint fk\_t23 foreign key (cust\_id) references t12(cust\_id),

7 constraint fk\_t23\_1 foreign key (city\_id) references t8(city\_id)

8 );

Table created.

SQL> create table t2

2 (

3 fac\_id varchar2(10),

4 emp\_id varchar2(10),

5 constraint pk\_t2 primary key (fac\_id,emp\_id),

6 constraint fk\_t2 foreign key (fac\_id) references t1(fac\_id),

7 constraint fk\_t2\_1 foreign key (emp\_id) references t20(emp\_id)

8 );

Table created.

SQL> create table t3

2 (

3 fac\_id varchar2(10),

4 cloth\_id varchar2(10),

5 constraint pk\_t3 primary key (fac\_id,cloth\_id),

6 constraint fk\_t3 foreign key (fac\_id) references t1(fac\_id),

7 constraint fk\_t3\_1 foreign key (cloth\_id) references t17(cloth\_id)

8 );

Table created.

SQL> create table t5

2 (

3 fac\_id varchar2(10),

4 raw\_id varchar2(10),

5 constraint pk\_t5 primary key (fac\_id,raw\_id),

6 constraint fk\_t5 foreign key (fac\_id) references t1(fac\_id),

7 constraint fk\_t5\_1 foreign key (raw\_id) references t4(raw\_id)

8 );

Table created.

SQL> create table t6

2 (

3 raw\_id varchar2(10),

4 show\_id varchar2(10),

5 constraint pk\_t6 primary key (raw\_id,show\_id),

6 constraint fk\_t6 foreign key (raw\_id) references t4(raw\_id),

7 constraint fk\_t6\_1 foreign key (show\_id) references t14(show\_id)

8 );

Table created.

SQL> create table t7

2 (

3 raw\_id varchar2(10),

4 trans\_id varchar2(10),

5 charges integer,

6 type varchar2(20),

7 constraint pk\_t7 primary key (raw\_id,trans\_id),

8 constraint fk\_t7 foreign key (raw\_id) references t4(raw\_id)

9 );

Table created.

SQL> create table t9

2 (

3 city\_id varchar2(10),

4 show\_id varchar2(10),

5 constraint pk\_t9 primary key (city\_id,show\_id),

6 constraint fk\_t9 foreign key (city\_id) references t8(city\_id),

7 constraint fk\_t9\_1 foreign key (show\_id) references t14(show\_id)

8 );

Table created.

SQL> create table t10

2 (

3 city\_id varchar2(10),

4 fac\_id varchar2(10),

5 constraint pk\_t10 primary key (city\_id,fac\_id),

6 constraint fk\_t10 foreign key (city\_id) references t8(city\_id),

7 constraint fk\_t10\_1 foreign key (fac\_id) references t1(fac\_id)

8 );

Table created.

SQL> create table t11

2 (

3 cust\_id varchar2(10),

4 name varchar2(20),

5 email varchar2(20),

6 comments varchar2(20),

7 constraint fk\_t11 foreign key (cust\_id) references t12(cust\_id),

8 constraint pk\_t11 primary key (name,email)

9 );

Table created.

SQL> create table t13

2 (

3 cust\_id varchar2(10),

4 cloth\_id varchar2(10),

5 constraint pk\_t13 primary key (cust\_id,cloth\_id),

6 constraint fk\_t13 foreign key (cust\_id) references t12(cust\_id),

7 constraint fk\_t13\_1 foreign key (cloth\_id) references t17(cloth\_id)

8 );

Table created.

SQL> create table t15

2 (

3 show\_id varchar2(10),

4 cloth\_id varchar2(10),

5 constraint pk\_t15 primary key (show\_id,cloth\_id),

6 constraint fk\_t15 foreign key (show\_id) references t14(show\_id),

7 constraint fk\_t15\_1 foreign key (cloth\_id) references t17(cloth\_id)

8 );

Table created.

DML Commands

mysql> insert into t1 values('1001','Avish Kumar','Cloth Emporium',50,'Delhi',1000);

Query OK, 1 row affected (0.06 sec)

mysql> insert into t4 values('101','Silk',250,1000);

Query OK, 1 row affected (0.06 sec)

mysql> insert into t5 values('1001','101');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t14 values('S1','South Ex',10,'Fashion Club',250);

Query OK, 1 row affected (0.06 sec)

mysql> insert into t7 values('C1',500,'Woolen');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t19 values('C1','Yellow');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t15 values('S1','C1');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t24 values('Fashion Club','Annapoorna');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t20 values('1','Ajay','Lucknow',12000,22,'D2');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t21 values('D2','Salesman','Prakhar');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t16 values('S1','1');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t8 values('City\_1','Delhi');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t22 values('C1','City\_1');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t2 values('1001','1');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t3 values('1001','C1');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t9 values('City\_1','S1');

Query OK, 1 row affected (0.06 sec)

mysql> insert into t10 values('City\_1','1001');

Query OK, 1 row affected (0.06 sec)

Code for Triggers

1. **Trigger to insert values into table t19 whenever a new cloth\_id is entered into table t17.**

mysql> delimiter $$

mysql> create trigger trig

-> after insert on t17

-> for each row

-> begin

-> insert into t18 values(new.cloth\_id,'S','MALE');

-> insert into t18 values(new.cloth\_id,'M','MALE');

-> insert into t18 values(new.cloth\_id,'L','MALE');

-> insert into t18 values(new.cloth\_id,'S','FEMALE');

-> insert into t18 values(new.cloth\_id,'M','FEMALE');

-> insert into t18 values(new.cloth\_id,'L','FEMALE');

-> end $$

Query OK, 0 rows affected (0.13 sec)

1. **Trigger to pay a hike of 500 rupees to an employee whose emp\_id is mentioned in the feedback.**

mysql> delimiter $$

mysql> create trigger trig1

-> after insert on t11

-> for each row

-> begin

-> update t25

-> set salary=salary+500

-> where emp\_id=new.emp\_id;

-> end$$

Query OK, 0 rows affected (0.58 sec)

1. **Trigger to delete cloth information from tables t18 and t19 whenever a cloth\_id is deleted from table t17.**

mysql> delimiter $$

mysql> create trigger trig2

-> before delete on t17

-> for each row

-> begin

-> delete from t18 where cloth\_id=old.cloth\_id;

-> delete from t19 where cloth\_id=old.cloth\_id;

-> end$$

Query OK, 0 rows affected (0.52 sec)

1. **Trigger to trigger salary of an employee making it 15000 on insertion of a new record.**

mysql> delimiter $$

mysql> create trigger trig3

-> after insert on t20

-> for each row

-> begin

-> insert into t25

-> values(new.emp\_id,15000);

-> end $$

Query OK, 0 rows affected (0.09 sec)

Code for Procedures

1. **Procedure to display maximum and average price of cloth in any showroom.**

mysql> delimiter $$

mysql> create procedure pro (in s\_id varchar(20))

-> begin

-> select max(prize),avg(prize)

-> from t15 join t17

-> on(t15.cloth\_id=t17.cloth\_id)

-> group by show\_id

-> having show\_id=s\_id;

-> end$$

Query OK, 0 rows affected (0.08 sec)

1. **Procedure to find clothes within a range of price.**

mysql> delimiter $$

mysql> create procedure pro1 (in pmax integer,in pmin integer)

-> begin

-> select t17.cloth\_id,material,colour

-> from t17 join t19

-> on(t17.cloth\_id=t19.cloth\_id)

-> where prize<pmax and prize>pmin;

-> end$$

Query OK, 0 rows affected (0.00 sec)

1. **Procedure to find which factory transports clothes to maximum number of showrooms.**

mysql> delimiter $$

mysql> create procedure pro2()

-> begin

-> create view view1 as

-> select count(distinct show\_id) show\_count

-> from t3 join t15

-> on(t3.cloth\_id=t15.cloth\_id)

-> group by fac\_id;

-> create view view2 as

-> select max(show\_count) max\_show\_count from view1;

-> select t3.fac\_id,fac\_name,count(distinct show\_id)

-> from t1 join t3

-> on(t1.fac\_id=t3.fac\_id)

-> join t15

-> on(t3.cloth\_id=t15.cloth\_id)

-> group by fac\_id

-> having count(distinct show\_id) in(select max\_show\_count from view2);

-> end$$

Query OK, 0 rows affected (0.00 sec)

Code for Procedures using Cursor

1. **Cursor to find all the showrooms in a particular city.**

mysql> delimiter $$

mysql> create procedure curs(in cityid varchar(20))

-> begin

-> declare sid varchar(20);

-> declare exit\_loop boolean;

-> declare curt cursor for

-> select show\_id from t9

-> where city\_id=cityid;

-> declare continue handler for not found set exit\_loop=true;

-> open curt;

-> tloop: loop

-> fetch curt into sid;

-> if exit\_loop then

-> close curt;

-> leave tloop;

-> end if;

-> select show\_id,name from t14 where show\_id=sid;

-> end loop;

-> end $$

Query OK, 0 rows affected (0.00 sec)

1. **Cursor to find which factory transfers clothes to which all showrooms.**

mysql>delimiter $$

mysql> create view v12 as

-> select fac\_id,show\_id

-> from t3 join t15

-> on(t3.cloth\_id=t15.cloth\_id);

-> $$

Query OK, 0 rows affected (0.09 sec)

mysql> create procedure curs1(in facid varchar(20))

-> begin

-> declare sid varchar(20);

-> declare exit\_loop boolean;

-> declare curt1 cursor for

-> select distinct show\_id from v12 where fac\_id=facid;

-> declare continue handler for not found set exit\_loop=true;

-> open curt1;

-> tloop: loop

-> fetch curt1 into sid;

-> if exit\_loop then

-> close curt1;

-> leave tloop;

-> end if;

-> select show\_id,name from t14 where show\_id=sid;

-> end loop;

-> end $$

Query OK, 0 rows affected (0.00 sec)