

DataBase Project

Description:

In this project, we have to make an application for a NGO “Hamary Bachy”. Our design consists of 13 tables. User can take admission by filling the admission form. There is a form for accompanying. To manage fee details by staff member there is a Fee detail form. Assignments can be added using class assignment form. Then finally there is a table view of the students per class to make CRUD operations easy.

UI:

MainPage:



Fee Detail Form:

Student Admission Form

For Staff Only

Fee Amount

Discount

Fee Fully Paid ☐ Yes ☐ No

Challan#

Student per Class Form:

Student Per Class Form

Name

ID	Name	Age	Gender
No content in table			

Accompanying Form:



The screenshot shows a web browser window with the title "Student Accompanying Form". The background of the form is a photograph of several smiling children. The form is divided into two main sections: "Student Information" and "Accompanying Gaurdian Information".

Student Information

ID

Name

Class

Accompanying Gaurdian Information

ID

Name

Pregnant ☐ Yes ☐ No

Reason for Parents Absence

Back

Assignment Form:



The screenshot shows a web browser window with the title "Class Assignment Form". The background of the form is the same photograph of smiling children as the first form. The form contains the following fields:

Student ID

Current Class

New Class

Reason for Change

Approved By

Back

Admission Form:

Student Admission Form

Student Information

Name

Gender

DOB

Parent Information

Mother Name

Mother Contact

Mother CNIC

Mother Email

Mother Address

Father Name

Father Contact

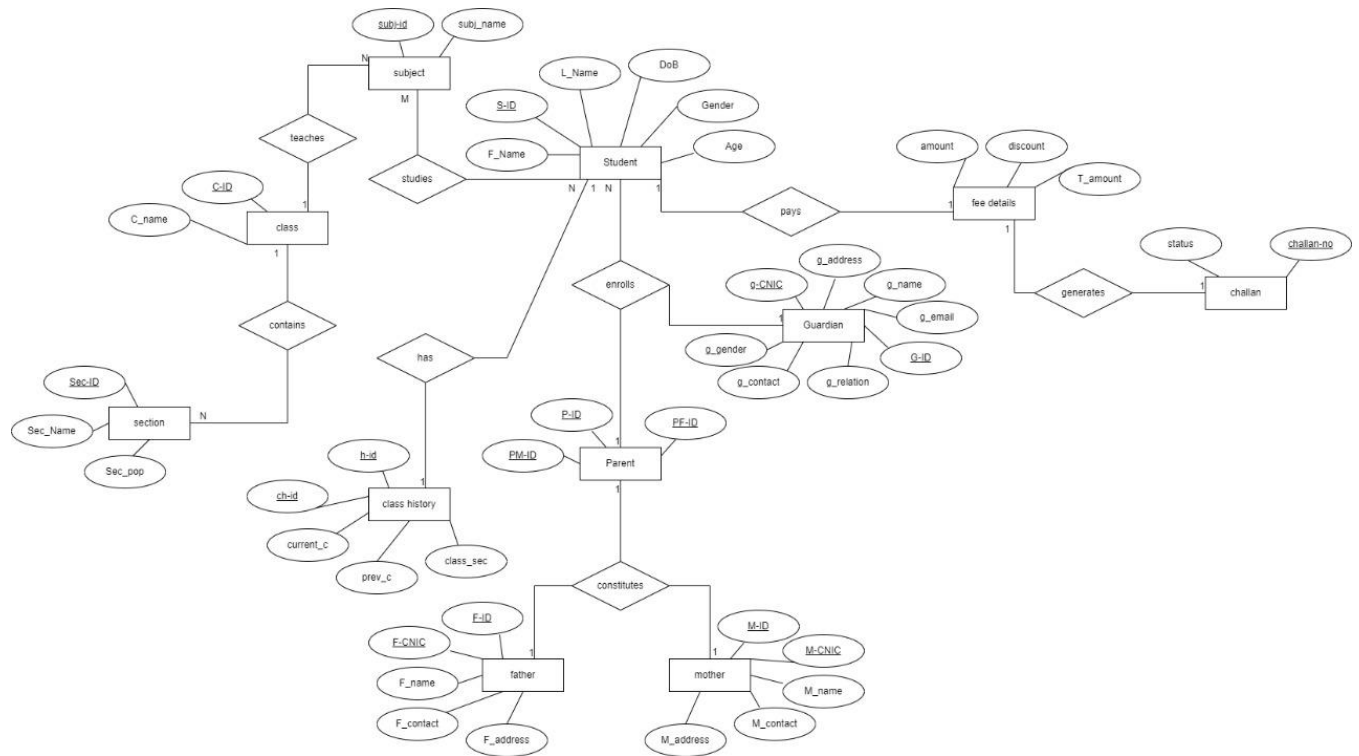
Father CNIC

Father Email

Father Address

Back

ERD:



Relational Schema:

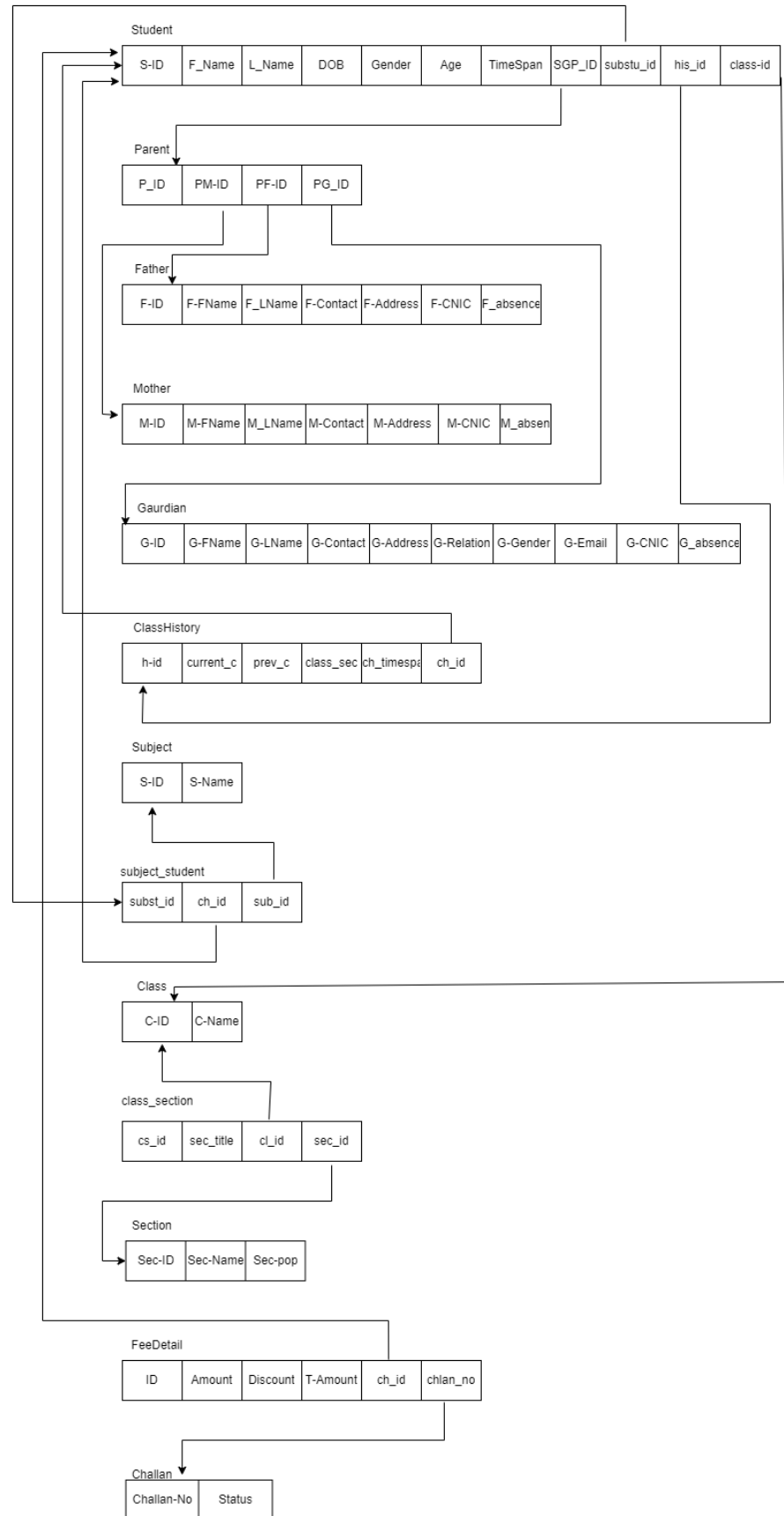


Table Description:

Subject

Field	Type	Null	Key	Default	Extra
Subj_ID	int(10)	NO	PRI	NULL	
Subj_name	varchar(255)	YES		NULL	

Student

Field	Type	Null	Key	Default	Extra
S_ID	int(100)	NO	PRI	NULL	
F_Name	varchar(255)	YES		NULL	
L_Name	varchar(255)	YES		NULL	
TimeSpan	date	YES		NULL	
DoB	date	YES		NULL	
Gender	varchar(50)	YES		NULL	
Age	int(3)	YES		NULL	
SGP_ID	int(100)	YES	MUL	NULL	
his_id	int(10)	YES	MUL	NULL	
substu_id	int(10)	YES	MUL	NULL	
class_ID	int(10)	YES	MUL	NULL	

Subject student

Field	Type	Null	Key	Default	Extra
subst_id	int(10)	NO	PRI	NULL	
ch_id	int(10)	YES	MUL	NULL	
sub_id	int(10)	YES	MUL	NULL	

section

Field	Type	Null	Key	Default	Extra
Sec_ID	int(10)	NO	PRI	NULL	
Sec_name	varchar(255)	YES		NULL	

Parent

Field	Type	Null	Key	Default	Extra
P_ID	int(100)	NO	PRI	NULL	
PM_ID	int(100)	YES	MUL	NULL	
PF_ID	int(100)	YES	MUL	NULL	
PG_ID	int(100)	YES	MUL	NULL	

Mother

Field	Type	Null	Key	Default	Extra
M_ID	int(100)	NO	PRI	NULL	
M_CNIC	int(100)	YES		NULL	
M_FName	varchar(255)	YES		NULL	
M_LName	varchar(255)	YES		NULL	
M_contact	int(50)	YES		NULL	
M_address	varchar(255)	YES		NULL	
M_absence	varchar(255)	YES		NULL	

Gaurdian

Field	Type	Null	Key	Default	Extra
G_ID	int(100)	NO	PRI	NULL	
G_FName	varchar(255)	YES		NULL	
G_LName	varchar(255)	YES		NULL	
Gender	varchar(50)	YES		NULL	
G_contact	int(15)	YES		NULL	
G_relation	varchar(50)	YES		NULL	
G_absence	varchar(255)	YES		NULL	
G_email	varchar(255)	YES		NULL	
G_address	varchar(255)	YES		NULL	
G_CNIC	int(50)	YES		NULL	

[Fee detail](#)

Field	Type	Null	Key	Default	Extra
fee_id	int(10)	NO	PRI	NULL	
Amount	int(10)	YES		NULL	
Discount	int(10)	YES		NULL	
T_amount	int(10)	YES		NULL	
ch_id	int(10)	YES	MUL	NULL	
Chlan_no	int(10)	YES	MUL	NULL	

[Father](#)

Field	Type	Null	Key	Default	Extra
F_ID	int(100)	NO	PRI	NULL	
F_CNIC	int(100)	YES		NULL	
F_FName	varchar(255)	YES		NULL	
F_LName	varchar(255)	YES		NULL	
F_contact	int(50)	YES		NULL	
F_address	varchar(255)	YES		NULL	
F_absence	varchar(255)	YES		NULL	

[Class section](#)

Field	Type	Null	Key	Default	Extra
cs_id	int(10)	NO	PRI	NULL	
Sec_title	varchar(255)	YES		NULL	
Se_id	int(10)	YES	MUL	NULL	
cl_id	int(10)	YES	MUL	NULL	

[Class history](#)

Field	Type	Null	Key	Default	Extra
h_id	int(10)	NO	PRI	NULL	
current_c	varchar(255)	YES		NULL	
prev_c	varchar(255)	YES		NULL	
class_sec	varchar(10)	YES		NULL	
ch_timespan	date	YES		NULL	
ch_id	int(100)	YES	MUL	NULL	

[class](#)

Field	Type	Null	Key	Default	Extra
C_ID	int(10)	NO	PRI	NULL	
C_name	varchar(255)	YES		NULL	

[challan](#)

Field	Type	Null	Key	Default	Extra
Challan_no	int(10)	NO	PRI	NULL	
Challan_status	varchar(255)	YES		NULL	

TABLE CREATION QUERIES

```
CREATE TABLE Student(  
S_ID integer(100) PRIMARY KEY,  
F_Name varchar(255),  
L_Name varchar(255),  
TimeSpan Date,  
DoB Date,  
Gender varchar(50),  
Age integer(3),  
SGP_ID integer(100),  
FOREIGN KEY (SGP_ID) REFERENCES Parent(P_ID),  
his_id integer(10),  
FOREIGN KEY (his_id) REFERENCES ClassHistory(h_id),  
substu_id integer(10),  
FOREIGN KEY (substu_id) REFERENCES subject_student(subst_id),  
class_ID integer(10),
```

```
FOREIGN KEY (class_ID) REFERENCES class(C_ID)
```

```
)
```

```
create TABLE subject_student(subst_id integer(10) PRIMARY KEY,  
ch_id integer(10),FOREIGN KEY (ch_id) REFERENCES student(S_ID),  
sub_id integer(10),FOREIGN KEY (sub_id) REFERENCES subject(Subj_ID))
```

```
CREATE TABLE Guardian(  
G_ID integer(100) PRIMARY KEY,  
G_FName varchar(255),  
G_LName varchar(255),  
G_Gender varchar(50),  
G_contact integer(15),  
G_relation varchar(50),  
G_absence varchar(255),  
G_email varchar(255),  
G_address varchar(255),  
G_CNIC integer(50))
```

```
CREATE TABLE Fee_details(  
fee_id integer(10) PRIMARY KEY,  
Amount integer(10),  
Discount integer(10),  
T_amount integer(10),  
ch_id integer(10),  
FOREIGN KEY (ch_id) REFERENCES student(S_ID),
```

```
Chlan_no integer(10),  
FOREIGN KEY (Chlan_no) REFERENCES Challan(Challan_no)  
)
```

```
CREATE TABLE Challan(  
Challan_no integer(10) PRIMARY Key,  
Challan_status varchar(255))
```

```
CREATE TABLE Subject(  
Subj_ID integer(10) PRIMARY Key,  
Subj_name varchar(255))
```

```
CREATE TABLE Class(  
C_ID integer(10) PRIMARY Key,  
C_name varchar(255),  
Sec_class_id integer(10),  
FOREIGN KEY (Sec_class_id) REFERENCES Section(Sec_ID),  
stu_id integer(100),  
FOREIGN KEY (stu_id) REFERENCES Section(S_ID))
```

```
CREATE TABLE Section(  
Sec_ID integer(10) PRIMARY Key,  
Sec_name varchar(255))
```

```
CREATE TABLE class_section(cs_id integer(10) PRIMARY Key,  
Sec_title varchar(255),
```

```
Se_id integer(10),  
FOREIGN KEY (Se_id) REFERENCES section(Sec_ID),  
cl_id integer(10),  
FOREIGN KEY (cl_id) REFERENCES class(C_ID))
```

```
CREATE TABLE ClassHistory(  
h_id integer(10) PRIMARY KEY,  
current_c varchar(255),  
prev_c varchar(255),  
class_sec varchar(10),  
ch_timespan date,  
ch_id integer(100),  
FOREIGN KEY (ch_id) REFERENCES student(S_ID))
```

```
CREATE TABLE PARENT(  
P_ID integer(100) PRIMARY KEY,  
PM_ID integer(100),  
PF_ID integer(100),  
PG_ID integer(100),  
FOREIGN KEY (PM_ID) REFERENCES mother(M_ID),  
FOREIGN KEY (PF_ID) REFERENCES father(F_ID),  
FOREIGN KEY (PG_ID) REFERENCES guardian(G_ID))
```

```
CREATE TABLE Father(  
F_ID integer(100) PRIMARY KEY,  
F_CNIC integer(100),
```



```
F_FName varchar(255),  
F_LName varchar(255),  
F_contact integer(50),  
F_address varchar(255),  
F_absence varchar(255))
```

```
CREATE TABLE Mother(  
M_ID integer(100) PRIMARY KEY,  
M_CNIC integer(100),  
M_FName varchar(255),  
M_LName varchar(255),  
M_contact integer(50),  
M_address varchar(255),  
M_absence varchar(255))
```

POPULATING TABLES

```
INSERT into challan(Challan_no,Challan_status)  
VALUES(101,'paid'),  
      (102,'paid'),  
      (103,'paid'),  
      (104,'paid'),  
      (105,'paid'),  
      (106,'not paid'),  
      (107,'not paid'),
```

(108,'not paid'),

(109,'not paid'),

(110,'not paid')

```
INSERT INTO father(F_ID,F_CNIC,F_FName,F_LName,F_contact,F_address,F_absence)
VALUES(1,372033456,'Muhammad','Harris',0303065782,'street#2 house#344 G-13','sick'),
      (2,472098676,'Talha','Baloch',0322347654,'street#44 house#14 G-13',''),
      (3,576327316,'Muhammad','Umair',0303575682,'street#76 house#34 I-14/2',''),
      (4,372920228,'Kashif','Bilal',0324689765,'street#85 house#45 H-13',''),
      (5,872071356,'Manzoor','Khan',0338747846,'street#22 house#76 I-10',''),
      (6,376543248,'Muhammad','Harris',030306578,'street#93 house#89 Gulshanabad','sick'),
      (7,472098676,'Talha','Baloch',0323456785,'street#99 house#98 Chaklala',''),
      (8,564657768,'Muhammad','Umair',030353456,'street#23 house#64 Kechahri chowk',''),
      (9,372564324,'Kashif','Bilal',032234345,'street#45 house#865 G-15',''),
      (10,877756335,'Manzoor','Khan',0338874543,'street#2 house#343 Hasnabad','')
```

```
INSERT INTO mother(M_ID,M_CNIC,M_FName,M_LName,M_contact,M_address,M_absence)
VALUES(1,172385456,'Malaika','Waheed',030765782,'street#2 house#344 G-13',''),
      (2,069564576,'Ayesha','Baloch',0398765454,'street#44 house#14 G-13',''),
      (3,570933786,'Kinza','Umair',0329098782,'street#76 house#34 I-14/2',''),
      (4,863844324,'Batool','Bilal',0309876545,'street#85 house#45 H-13',''),
      (5,776393243,'Izza','Khan',0466995543,'street#22 house#76 I-10',''),
      (6,031235633,'Mubrra','Harris',036757858,'street#93 house#89 Gulshanabad','sick'),
      (7,472837176,'Maha','Baloch',0323675685,'street#99 house#98 Chaklala',''),
```

```
(8,537893368,'Mubashra','Umair',0309875443,'street#23 house#64 Kechahri chowk',''),  
(9,379237324,'Kashmala','Bilal',032534675,'street#45 house#865 G-15',''),  
(10,873893239,'Pareeshay','Khan',036638543,'street#2 house#343 Hasnabad','')
```

```
INSERT INTO  
guardian(G_ID,G_FName,G_LName,G_Gender,G_contact,G_email,G_CNIC,G_relation,G_address,G_abse  
nce)
```

```
VALUES(11,'Ali','Shah','Male',0987555898,'alishah@gmail.com',154368763,'Uncle','street#85  
house#45 H-13',''),
```

```
(12,'Muzammil','Hussain','Male',0357655478,'muzammil@gmail.com',987765332,'Aunt','street#53  
house#5 Chandni chowk',''),
```

```
(13,'Kiran','Mushtaq','Female',0358976432,'kiran@gmail.com',909777643,'Aunt','street#22  
house#25 F-11','')
```

```
INSERT INTO parent(P_ID,PM_ID,PF_ID,PG_ID)
```

```
VALUES(1,1,1,NULL),
```

```
(2,2,2,NULL),
```

```
(3,3,3,NULL),
```

```
(4,4,4,NULL),
```

```
(5,5,5,NULL),
```

```
(6,6,6,NULL),
```

```
(7,7,7,NULL),
```

```
(8,8,8,NULL),
```

```
(9,9,9,NULL),
```

```
(10,10,10,NULL),
```

```
(11,NULL,NULL,11),
```

```
(12,NULL,NULL,12);
```

```
INSERT INTO section(Sec_ID,Sec_name)
```

```
VALUES(1,'A'),
```

```
(2,'B')
```

```
INSERT into class(C_ID,C_name,Sec_class_id,stu_id)
```

```
VALUES(1,'one',1,1),
```

```
(2,'two',1,2),
```

```
(3,'three',2,2),
```

```
(4,'four',2,4),
```

```
(5,'five',1,5),
```

```
(6,'six',2,12);
```

```
INSERT INTO class_section(cs_id,Sec_title,Se_id,cl_id)
```

```
VALUES (1,'MQM',1,1),
```

```
(2,'MQJ',2,1),
```

```
(3,'NQM',1,2),
```

```
(4,'NQJ',2,2),
```

```
(5,'OQM',1,3),
```

```
(6,'OQJ',2,3),
```

```
(7,'PQM',1,4),
```

```
(8,'PQJ',2,4),
```

```
(9,'QQM',1,5),  
(10,'QQJ',2,5),  
(11,'RQM',1,6),  
(12,'RQJ',2,6);
```

```
INSERT INTO subject(Subj_ID,Subj_name)  
VALUES(200,'Chemistry'),  
(201,'Physics'),  
(202,'Maths'),  
(203,'Islamic Studies'),  
(204,'History'),  
(205,'Computer'),  
(206,'Ethics'),  
(207,'Ahadith'),  
(208,'Pak Studies'),  
(209,'English');
```

```
INSERT INTO  
student(S_ID,F_Name,L_Name,TimeSpan,Gender,DoB,Age,SGP_ID,substu_id,his_id,class_ID)  
VALUES(1,'Mubrra','Asma','2020-01-01','Female','2017-01-01',3,12,1,1,1),  
(2,'Atqa','Asma','2019-04-01','Female','2015-04-01',4,1,2,2,1),  
(3,'Hajra','Asma','2019-01-01','Female','2014-01-01',5,2,3,3,2),  
(4,'Moiza','Manzoor','2018-02-02','Female','2014-02-02',4,2,4,4,1),  
(5,'Adeen','Ayub','2020-05-03','Female','2017-05-03',3,3,5,5,1),
```



```
(6,'Moatter','Zeest','2020-01-01','Female','2016-01-01',4,4,6,6,1),  
(7,'Qasim','Bilal','2020-11-01','Male','2013-11-01',6,5,7,7,2),  
(8,'Harris','Raza','2021-01-01','Male','2010-01-01',11,6,8,8,5),  
(9,'Mubashir','Hamza','2021-07-01','Male','2013-07-01',8,7,9,9,3),  
(10,'Bilal','Qureshi','2021-01-01','Male','2012-01-01',9,8,10,10,4),  
(11,'Faizan','Khan','2020-01-01','Male','2007-01-01',13,11,11,11,6),  
(12,'Hassam','Saeed','2021-02-02','Male','2007-02-02',14,10,12,12,6);
```

```
INSERT INTO subject_student(subst_id,ch_id,sub_id)  
VALUES(1,301,200),  
(2,302,200),  
(3,303,201),  
(4,304,201),  
(5,305,202),  
(6,306,202),  
(7,307,203),  
(8,308,203),  
(9,309,204),  
(10,310,204),  
(11,311,206),  
(12,312,207);
```

```
INSERT INTO classhistory(h_id,current_c,prev_c,class_sec,ch_timespan,ch_id)  
VALUES(1,'one',NULL,'A','2020-01-01',301),
```

```
(2,'one',NULL,'A','2020-01-01',302),  
(3,'two','one','B','2020-01-01',303),  
(4,'one',NULL,'B','2020-01-01',304),  
(5,'one',NULL,'A','2020-01-01',305),  
(6,'one',NULL,'A','2020-01-01',306),  
(7,'two','one','B','2020-01-01',307),  
(8,'five','four','B','2020-01-01',308),  
(9,'three','two','A','2020-01-01',309),  
(10,'four','three','A','2020-01-01',310),  
(11,'six','five','B','2020-01-01',311),  
(12,'six','five','B','2020-01-01',312);
```

```
INSERT INTO fee_details(fee_id,Amount,Discount,T_amount,ch_id,Chlan_no)  
VALUES (1,1000,100,900,301,101),  
(2,1000,100,900,302,102),  
(3,2000,NULL,2000,303,103),  
(4,2000,NULL,2000,304,104),  
(5,2000,NULL,2000,305,105),  
(6,3000,NULL,3000,306,106),  
(7,1000,NULL,1000,307,107),  
(8,3000,NULL,3000,308,108),  
(9,2000,NULL,2000,309,109),  
(10,1000,NULL,1000,310,110),  
(11,1000,NULL,1000,311,NULL),  
(12,1000,NULL,1000,312,NULL);
```

TRIGGER

```
CREATE TRIGGER `history` AFTER INSERT ON `student` FOR EACH ROW INSERT INTO classhistory  
VALUES (classhistory.ch_id, classhistory.current_c,classhistory.NOW())
```