

DBMS – Mini Project

Title of the Project – CharterGhar(House Rental Management System)

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V Semester
Section : I

Short Description and Scope of the Project

- House management has become important factor in modern society hence the need to have a house rental management system
- Charter-Ghar is a House rental management website where house owners, agents and tenants can exchange information effectively and inexpensively.
- Provides user-friendly interface, satisfying the needs of the consumers.
- Employs a new strategy that facilitates easy management of rental houses.

Scope:

The project scope defines the description of the work that is required in delivering the rental house management system.

The following are the scopes of work during the course of the project:

- Study and understand the requirement of this project
- ER diagram and relational schema
- A minimalistic UI/front-end
- Creating and populating the database
- Using the SQL queries and show the reflections in the front-end developed

Modules Used:

- Owner: Displays the details of the Houses he/she owns for rent.
- Tenant: Searched the best suited house for the living and makes contract with the owner once he/she buys/rents the house.
- Contract: Stores the details of Tenant renting the house belonging to respective Owner.
- Payment: Payment window for making multiple payments for a contract

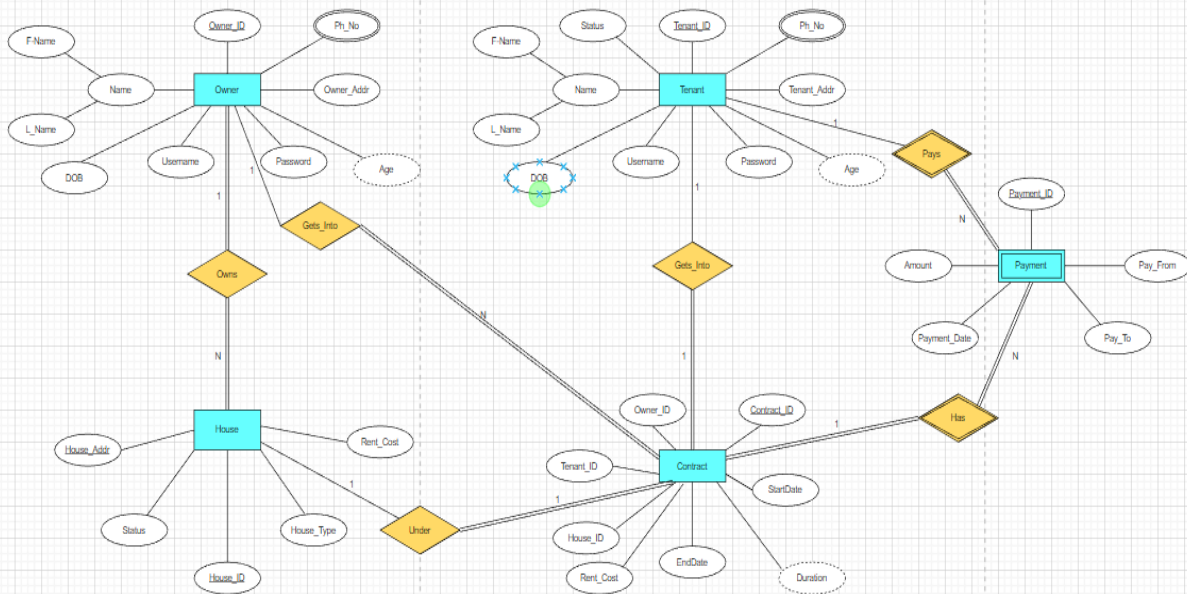
ER Diagram

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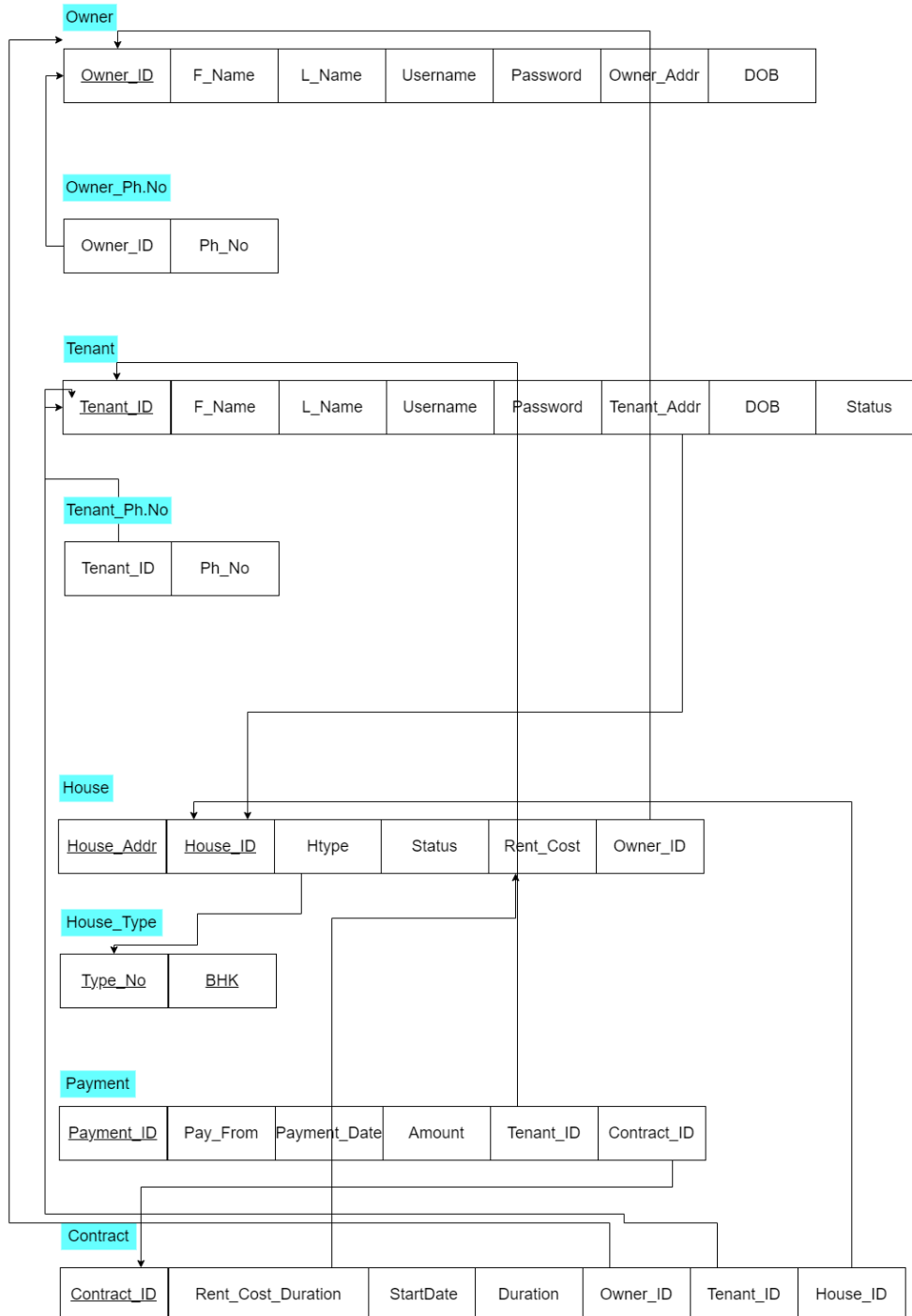
Relational Schema

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DDL statements - Building the database

```
--Owner Table
CREATE TABLE IF NOT EXISTS Owner(
    Owner_ID int(6) auto_increment,
    primary key(Owner_ID),
    F_Name varchar(10) not null,
    L_Name varchar(10) not null,
    Username varchar(10) not null unique,
    Password varchar(10) not null,
    Owner_Addr varchar(50) unique,
    DOB date
);

alter table Owner auto_increment=100000;
```

```
--Owner_Ph.No
CREATE TABLE IF NOT EXISTS Owner_Ph(
    Owner_ID int(6),
    constraint fk_owner_id foreign key(Owner_ID) REFERENCES Owner(Owner_ID),
    Ph_No char(10) not null
);

alter table Owner_Ph add constraint check_ph check(char_length(Ph_No)=10);
```

```
--Tenant
CREATE TABLE IF NOT EXISTS Tenant(
    Tenant_ID int(6) auto_increment,
    primary key(Tenant_ID),
    F_Name varchar(10) not null,
    L_Name varchar(10) not null,
    Username varchar(10) not null unique,
    Password varchar(10) not null,
    Tenant_Addr varchar(50) default NULL,
    -- constraint fk_tenant_addr foreign key(Tenant_Addr) REFERENCES House(House_Addr),
    DOB date,
    Status boolean default false
);

alter table Tenant auto_increment=300000;
```

```
--Tenant_Ph.No
CREATE TABLE IF NOT EXISTS Tenant_Ph(
```

```

    Tenant_ID int(6),
    constraint fk_tenant_id foreign key(Tenant_ID) REFERENCES Tenant(Tenant_ID),
    Ph_No char(10) not null
);
alter table Tenant_Ph add constraint check_ph check(char_length(Ph_No)=10);

```

```

--House_type
CREATE TABLE IF NOT EXISTS House_Type(
    Type_No int(2),
    BHK varchar(6),
    primary key(Type_No,BHK)
);
--House
CREATE TABLE IF NOT EXISTS House(
    House_ID int auto_increment,
    House_Addr varchar(50),
    primary key(House_ID,House_Addr),
    Htype int(2),
    constraint fk_house_type foreign key(Htype) REFERENCES House_type(Type_No),
    Rent_Cost int(10) not null,
    Owner_ID int(6),
    constraint fk_owner_id2 foreign key(Owner_ID) REFERENCES Owner(Owner_ID)
);
alter table House auto_increment=200000;

```

```

--Contract
CREATE TABLE IF NOT EXISTS Contract(
    Contract_ID int(6) auto_increment,
    primary key(Contract_ID),
    Start_Date date,
    Duration int(2) not null default 1,
    Rent_Cost_Duration int(10),
    -- constraint fk_rent_cost foreign key(Rent_Cost_Duration) references
House(Rent_Cost),
    Owner_ID int(6),
    constraint fk_owner_id3 foreign key(Owner_ID) REFERENCES Owner(Owner_ID),
    Tenant_ID int(6),
    constraint fk_tenant_id2 foreign key(Tenant_ID) REFERENCES Tenant(Tenant_ID),
    House_ID int(6),
    constraint fk_house_id foreign key(House_ID) REFERENCES House(House_ID)
);
alter table Contract auto_increment=400000;

```

```
--Payment
CREATE TABLE IF NOT EXISTS Payment(
    Payment_ID int auto_increment,
    primary key(Payment_ID),
    Pay_From varchar(20) not null,
    Payment_Date date,
    Amount int(10) not null,
    Tenant_ID int(6),
    constraint fk_tenant_id3 foreign key(Tenant_ID) REFERENCES Tenant(Tenant_ID),
    Contract_ID int(6),
    constraint fk_contract_id foreign key(Contract_ID) REFERENCES Contract(Contract_ID)
);
alter table Payment auto_increment=500000;
```

Populating the Database

```
--Owner
insert INTO Owner(F_Name,L_Name,username,password,Owner_Addr,DOB)
VALUES("Vrushank","G","vrush41","12345","2nd cross,millerpet,bellary",'2002-08-12');
insert INTO Owner(F_Name,L_Name,username,password,Owner_Addr,DOB)
VALUES("Hemanth","N","hemanth28","23456","4th
cross,gauribidanur,chikkaballapur",'2002-01-28');
insert INTO Owner(F_Name,L_Name,username,password,Owner_Addr,DOB)
VALUES("Dhanush","M D","mdebro","34567","2nd cross,puttur,mangaluru",'2002-06-01');
insert INTO Owner(F_Name,L_Name,username,password,Owner_Addr,DOB)
VALUES("Srinivas","Y","vasu03","45678","3rd cross,rr nagar,bengaluru",'2002-03-27');
insert INTO Owner(F_Name,L_Name,username,password,Owner_Addr,DOB)
VALUES("Om","Prasad","om123","56789","2nd cross,jaynagar,bengaluru",'2002-05-10');
```

```
--Owner_Ph
insert INTO Owner_Ph(Owner_ID,Ph_No) VALUES(100000,(9876929479));
insert INTO Owner_Ph(Owner_ID,Ph_No) VALUES(100001,(6968456239));
insert INTO Owner_Ph(Owner_ID,Ph_No) VALUES(100002,(9087565642));
insert INTO Owner_Ph(Owner_ID,Ph_No) VALUES(100003,(9980674554));
insert INTO Owner_Ph(Owner_ID,Ph_No) VALUES(100004,(9780678543));
```

```
--Tenant
insert INTO Tenant(F_Name,L_Name,Username>Password,Tenant_Addr,DOB)
VALUES("Sathvik","A","stvk64","09875","guntur",'2002-04-03');
insert INTO Tenant(F_Name,L_Name,Username>Password,Tenant_Addr,DOB)
VALUES("Teja","Kanala","tsreddy43","98735","kurnool",'2002-07-21');
insert INTO Tenant(F_Name,L_Name,Username>Password,Tenant_Addr,DOB)
VALUES("Soumith","B","soumpi23","56780","bellary",'2002-01-23');
insert INTO Tenant(F_Name,L_Name,Username>Password,Tenant_Addr,DOB)
VALUES("Prathap","P","ptp45","12988","hindupur",'2002-07-09');
insert INTO Tenant(F_Name,L_Name,Username>Password,Tenant_Addr,DOB)
VALUES("Nayan","K","nyn987","09876","rajaji nagar,bengaluru",'2002-04-03');
```

```
--Tenant_Ph
insert INTO Tenant_Ph(Tenant_ID,Ph_No) VALUES(300000,(9067825372));
insert INTO Tenant_Ph(Tenant_ID,Ph_No) VALUES(300001,(6273682936));
insert INTO Tenant_Ph(Tenant_ID,Ph_No) VALUES(300002,(9808577578));
insert INTO Tenant_Ph(Tenant_ID,Ph_No) VALUES(300003,(9768457902));
insert INTO Tenant_Ph(Tenant_ID,Ph_No) VALUES(300020,(6363787893));
```

```
--House_Type
insert INTO House_Type(Type_No,BHK) VALUES(1,"1 BHK");
```



```
insert INTO House_Type(Type_No,BHK) VALUES(2,"2 BHK");
insert INTO House_Type(Type_No,BHK) VALUES(3,"3 BHK");
insert INTO House_Type(Type_No,BHK) VALUES(4,"4 BHK");
insert INTO House_Type(Type_No,BHK) VALUES(5,"5 BHK");
```

--House

```
INSERT INTO House(House_Addr,Htype,Rent_Cost,Owner_ID)
VALUES("Bellary",3,10000,100000);
INSERT INTO House(House_Addr,Htype,Rent_Cost,Owner_ID)
VALUES("gauribidanur",2,8000,100001);
INSERT INTO House(House_Addr,Htype,Rent_Cost,Owner_ID)
VALUES("puttur",1,7000,100002);
INSERT INTO House(House_Addr,Htype,Rent_Cost,Owner_ID) VALUES("rr
nagar",5,15000,100003);
INSERT INTO House(House_Addr,Htype,Rent_Cost,Owner_ID)
VALUES("jaynagar",4,20000,100004);
```

Join Queries

Showcase at least 4 join queries

Write the query in English Language, Show the equivalent SQL statement and also a screenshot of the query and the results

```
Select * from Owner inner JOIN Owner_Ph on Owner.Owner_ID=Owner_Ph.Owner_ID;
```

Showing rows 0 - 5 (6 total, Query took 0.0019 seconds.)

```
Select * from Owner inner JOIN Owner_Ph on Owner.Owner_ID=Owner_Ph.Owner_ID;
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

Owner_ID	F_Name	L_Name	Username	Password	Owner_Addr	DOB	Owner_ID	Ph_No
100000	Vrushank	G	vrush41	12345	2nd cross,millerpet,bellary	2002-08-12	100000	9876929479
100002	Dhanush	M D	mdebro	34567	2nd cross,puttur,mangaluru	2002-06-01	100002	9087565643
100003	Srinivas	Y	vasu03	45678	3rd cross,rr nagar,bengaluru	2002-03-27	100003	9884143767
100004	Om	Prasad	om123	56789	2nd cross,jaynagar,bengaluru	2002-05-10	100004	9780678542
100017	Sundeep	A	sundy123	12345	Avambhavi,Bellary	2012-11-14	100017	9876543211
100001	Hemanth	N	hemanth28	23456	4th cross,gauribidanur,chikkaballapur	2002-01-28	100001	7676110011

```
Select * from Tenant inner JOIN Tenant_Ph on  
Tenant.Tenant_ID=Tenant_Ph.Tenant_ID;
```

Showing rows 0 - 5 (6 total, Query took 0.0018 seconds.)

```
Select * from Tenant inner JOIN Tenant_Ph on Tenant.Tenant_ID=Tenant_Ph.Tenant_ID;
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

Tenant_ID	F_Name	L_Name	Username	Password	Tenant_Addr	DOB	Status	Tenant_ID	Ph_No
300000	Sathvik	A	sathvik12	sat123	jaynagar	2002-04-03	1	300000	9067825372
300001	Teja	Kanala	teja123	tej123	None	2002-07-21	0	300001	6273682936
300002	Soumith	B	soumpi	sou123	bellary	2002-01-23	0	300002	9808577578
300003	Prathap	P	ptp45	12988	Near Electronic City Campus	2002-07-09	1	300003	9768457902
300020	Nayan	K	nyn987	09876	puttur	2002-04-03	1	300020	9000900090
300021	Soumith	Sai	saisou123	12345	Ashok complex,Bellary	2002-01-23	0	300021	8134156789

```
Select * from House inner JOIN House_Type on House_Type.Type_No=House.Htype;
```

✓ Showing rows 0 - 5 (6 total, Query took 0.0011 seconds.)

```
Select * from House inner JOIN House_Type on House_Type.Type_No=House.Htype;
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: Filter rows: Sort by key:

Extra options

House_ID	House_Addr	Htype	Rent_Cost	Owner_ID	Type_No	BHK
200007	Bellary	3	10000	100000	3	3 BHK
200008	gauribidanur	2	8000	100001	2	2 BHK
200009	puttur	1	7000	100002	1	1 BHK
200010	rr nagar	5	15000	100003	5	5 BHK
200011	jaynagar	4	25000	100004	4	4 BHK
200015	Near Electronic City Campus	4	8500	100004	4	4 BHK

```
select Payment_ID,Contract.Contract_ID from Contract inner join Payment on Contract.Contract_ID=Payment.Contract_ID;
```

✓ Showing rows 0 - 2 (3 total, Query took 0.0005 seconds.)

```
select Payment_ID,Contract.Contract_ID from Contract inner join Payment on Contract.Contract_ID=Payment.Contract_ID;
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: Filter rows: Sort by key:

Extra options

Payment_ID	Contract_ID
500000	400001
500004	400001
500010	400003

Aggregate Functions

Showcase at least 4 Aggregate function queries

Write the query in English Language, Show the equivalent SQL statement and also a screenshot of the query and the results

```
select count(Payment_ID),Contract.Contract_ID from Contract inner join Payment on Contract.Contract_ID=Payment.Contract_ID group by Contract_ID;
```

✓ Showing rows 0 - 1 (2 total, Query took 0.0022 seconds.)

```
select count(Payment_ID),Contract.Contract_ID from Contract inner join Payment on Contract.Contract_ID=Payment.Contract_ID group by contract_Id;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

count(Payment_ID)	Contract_ID
2	400001
1	400003

```
SELECT sum(payment.Amount),Contract.Contract_ID from Contract inner join Payment on Contract.Contract_ID=Payment.Contract_ID group by contract_Id;
```

✓ Showing rows 0 - 1 (2 total, Query took 0.0024 seconds.)

```
SELECT sum(payment.Amount),Contract.Contract_ID from Contract inner join Payment on Contract.Contract_ID=Payment.Contract_ID group by contract_Id;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

sum(payment.Amount)	Contract_ID
3500	400001
20000	400003

```
SELECT AVG(Rent_Cost) from house;
```

✓ Showing rows 0 - 0 (1 total, Query took 0.0004 seconds.)

```
SELECT AVG(Rent_Cost) from house;
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: Filter rows:

Extra options

AVG(Rent_Cost)

12250.0000

Select

```
Contract.Contract_ID,Contract.Start_Date,Contract.Duration,Contract.Rent_Cost_Dur
ation,Contract.Owner_ID,Contract.Tenant_ID,Contract.House_ID,count(Payment.Paymen
t_ID),sum(Payment.Amount),rent_remain(sum(Payment.Amount),Rent_Cost_Duration)
from Contract inner join Payment on Contract.Contract_ID=Payment.Contract_ID
group by Contract_ID;
```

✓ Showing rows 0 - 1 (2 total, Query took 0.0049 seconds.)

Select

```
Contract.Contract_ID,Contract.Start_Date,Contract.Duration,Contract.Rent_Cost_Duration,Contract.Owner_ID,Contract.Tenant_ID,Contract.House_ID,count(Payment.Payment_ID),sum(Payment.Amount),rent_remain(sum(Payment.Amount),Rent_Cost_Duration) from Contract inner join Payment on Contract.Contract_ID=Payment.Contract_ID group by Contract_ID;
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: Filter rows: Sort by key:

Extra options

Contract_ID	Start_Date	Duration	Rent_Cost_Duration	Owner_ID	Tenant_ID	House_ID	count(Payment.Payment_ID)	sum(Payment.Amount)	rent_remain(sum(Payment.Amount),Rent_Cost_Duration)
400001	2022-11-16	6	42000	100002	300020	200009	2	3500	38500
400003	2022-11-28	18	360000	100004	300000	200011	1	20000	340000

Set Operations

Showcase at least 4 Set Operations queries

Write the query in English Language, Show the equivalent SQL statement and also a screenshot of the query and the results

```
SELECT * FROM house where (Rent_Cost > 10000) UNION Select * from house where (Rent_Cost<8000);
```

Showing rows 0 - 2 (3 total, Query took 0.0041 seconds.)

```
SELECT * FROM house where (Rent_Cost > 10000) UNION Select * from house where (Rent_Cost<8000);
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

House_ID	House_Addr	Htype	Rent_Cost	Owner_ID
200010	rr nagar	5	15000	100003
200011	jaynagar	4	25000	100004
200009	puttur	1	7000	100002

```
SELECT * FROM owner where (DOB ='2002-05-13') UNION Select * from owner where (DOB ='2002-01-28');
```

Showing rows 0 - 0 (1 total, Query took 0.0033 seconds.)

```
SELECT * FROM owner where (DOB ='2002-05-13') UNION Select * from owner where (DOB ='2002-01-28');
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

Owner_ID	F_Name	L_Name	Username	Password	Owner_Addr	DOB
100001	Hemanth	N	hemanth28	23456	4th cross,gauribidanur,chikkaballapur	2002-01-28

```
SELECT * FROM contract where (Start_Date>'2016-04-12') INTERSECT SELECT * from contract where (Duration = 9);
```

✓ Showing rows 0 - 1 (2 total, Query took 0.0006 seconds.)

```
SELECT * FROM contract where (Start_Date>'2016-04-12') INTERSECT SELECT * from contract where (Duration = 9);
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 ▾ Filter rows: Sort by key: None ▾

Extra options

Contract_ID	Start_Date	Duration	Rent_Cost_Duration	Owner_ID	Tenant_ID	House_ID
400009	2022-11-29	9	76500	100004	300003	200015
400010	2022-11-29	9	225000	100004	300000	200011

```
SELECT * FROM contract where (Start_Date = '2022-11-16') INTERSECT Select * from contract where (Duration<7);
```

✓ Showing rows 0 - 0 (1 total, Query took 0.0007 seconds.)

```
SELECT * FROM contract where (Start_Date = '2022-11-16') INTERSECT Select * from contract where (Duration<7);
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 ▾ Filter rows:

Extra options

Contract_ID	Start_Date	Duration	Rent_Cost_Duration	Owner_ID	Tenant_ID	House_ID
400001	2022-11-16	6	42000	100002	300020	200009

Functions and Procedures

Create a Function and Procedure. State the objective of the function / Procedure. Run and display the results.

Functions:

```
DELIMITER $

CREATE FUNCTION rent_remain(Amount double,Total double)
  RETURNS double
  DETERMINISTIC
  BEGIN
    return Total-Amount;
  END $
delimiter ;
```

```
SET @p0='3500'; SET @p1='20000'; SELECT `rent_remain`(@p0, @p1) AS `rent_remain`;
```

Execution results of routine `rent_remain`

rent_remain
16500

```
DELIMITER $

CREATE FUNCTION totalrent(duration int,Total double)
  RETURNS double
  DETERMINISTIC
  BEGIN
    return duration*Total;
  END $
delimiter ;
```

```
SET @p0='5'; SET @p1='20000'; SELECT `totalrent`(@p0, @p1) AS `totalrent`;
```

Execution results of routine `totalrent`

totalrent
100000

Procedures:

```
delimiter $
```

```
create Procedure end_date_calc(IN start_date date,IN duration int, OUT end_date date)
begin
    select date_add(`start_date`, INTERVAL `duration` MONTH) into end_date;
end $
```

```
delimiter ;
```

```
SET @p0='2022-08-12'; SET @p1='10'; SET @p2=''; CALL `end_date_calc`(@p0, @p1, @p2); SELECT @p2 AS `end_date`;
```

Execution results of routine `end_date_calc`

end_date
2023-06-12

```
create Procedure age_dob(IN dob date, OUT age int)
begin
    SELECT DATE_FORMAT(FROM_DAYS(DATEDIFF(NOW(), dob)), '%Y') + 0 AS age
into age;
end $
```

```
delimiter ;
```

```
SET @p0='2002-08-12'; SET @p1=''; CALL `age_dob`(@p0, @p1); SELECT @p1 AS `age`;
```

Execution results of routine `age_dob`

age
20

Triggers and Cursors

Create a Trigger and a Cursor. State the objective. Run and display the results.

Cursor:

For creating a backup:

```
DELIMITER $$
CREATE PROCEDURE backup_member()
BEGIN
DECLARE done INT DEFAULT 0;
DECLARE Owner_ID INTEGER;
DECLARE Start_Date DATE;
DECLARE cur CURSOR FOR SELECT Owner_ID,start_date FROM contract ;
DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = 1;
OPEN cur;
label: LOOP
FETCH cur INTO Owner_ID,Start_Date;
INSERT INTO backup VALUES(Owner_ID,Start_Date);
IF done = 1 THEN LEAVE label;
END IF;
END LOOP;
CLOSE cur;
END$$
DELIMITER ;
```

```
--Creating backup table:
CREATE TABLE backup(Owner_ID int,Start_Date DATE);
-- CALL THE PROCEDURE:
CALL backup_member();
--SHOW THE Backup TABLE created due to this cursor :
SELECT * FROM backup;
```

✓ Showing rows 0 - 2 (3 total, Query took 0.0002 seconds.)

SELECT * FROM `backup`

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 ▼ Filter rows:

Extra options

Owner_ID	Start_Date
123458	2022-11-02
789016	2022-11-27
789017	2022-11-27

Trigger:

```
c.execute(" drop trigger if exists amount_exceed")
    qrystr = (""" delimiter // \n"
        " CREATE TRIGGER mytrigger BEFORE INSERT ON Payment FOR EACH
ROW \n"
        " BEGIN \n"
        " IF (select sum(Amount) from Payment group by Contract_ID={})
> {} THEN \n"
        " SIGNAL SQLSTATE '45000' SET message_text="Amount can't
exceed total Rent Cost";\n"
        " END IF;\n"
        " END; //\n"
        " delimiter ; \n""").format(Contract_ID,totalrent))
    c.execute(qrystr)
```

Run SQL query/queries on database house_rental: ⓘ

```
1 INSERT INTO Payment(Contract_ID,Tenant_ID, Pay_From, Payment_Date, Amount) VALUES (400001,300020,"Nayan",2022-12-01,200000);
```

Clear

Format

Get auto-saved query

☐ Bind parameters ⓘ

Delimiter

;

☐ Show this query here again

☐ Retain query box

☐ Rollback when finished

☒ Enable foreign key checks

Go

Error

SQL query: [Copy](#)

```
INSERT INTO Payment(Contract_ID,Tenant_ID, Pay_From, Payment_Date, Amount) VALUES (400001,300020,"Nayan",2022-12-01,200000);
```

MySQL said: ⓘ

#1644 - Amount can't exceed total Rent Cost

Developing a Frontend

The frontend should support

1. Addition, Modification and Deletion of records from any chosen table

FrontEnd

×

Menu

ADD

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Select Table

Owner

Add Details:

Firstname

Lastname

Username

Password

DOB

Address

Ph.No

Addition

×

Menu

ADD

Select Table

Tenant

Add Details:

Firstname

Lastname

Username

Password

DOB

Address

Ph.No

Submit

Added the details of shrey@123 in Tenant

Reading

Menu

VIEW

Select Table

Tenant

View details

View

	Tenant_ID	F_Name	L_Name	Username	Password	Tenant_Addr	DOB	Status
0	300000	Sathvik	A	sathvik12	sat123	jaynagar	2002-04-03	1
1	300001	Teja	Kanala	teja123	tej123	None	2002-07-21	0
2	300002	Soumith	B	soumpi	sou123	bellary	2002-01-23	0
3	300003	Prathap	P	ptp45	12988	Near Electronic City Campus	2002-07-09	1
4	300020	Nayan	K	nyn987	09876	puttur	2002-04-03	1
5	300021	Soumith	Sai	saisou123	12345	Ashok complex,Bellary	2002-01-23	0
6	300022	Shreya	Himachal	shrey@123	12345	Jayant Nagar,Ranchi	1996-12-06	0

Updation

Before Update:

Menu

EDIT/UPDATE

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Select Table

Tenant

Update the details here

Current data

Select Owner to be Updated

(300020, 'nyn987')

(300020, 'Nayan', 'K', 'nyn987', '09876', 'puttur', datetime.date(2002, 4, 3), 1)

Showing for Tenant_ID: 300020

After Update:

Menu

EDIT/UPDATE

Showing for Tenant_ID: 300020

Firstname

Nayan

Lastname

K Singh

Username

Nayan@1

Password

DOB

2002/04/03

Address

puttur

Ph.No

9000900091

Submit

Updated data

	Tenant_ID	F_Name	L_Name	Username	Password	Tenant_Addr	DOB	Status
0	300000	Sathvik	A	sathvik12	sat123	jaynagar	2002-04-03	1
1	300001	Teja	Kanala	teja123	tej123	None	2002-	0

Menu

EDIT/UPDATE

Submit

Updated data

	Tenant_ID	F_Name	L_Name	Username	Password	Tenant_Addr	DOB	Status
0	300000	Sathvik	A	sathvik12	sat123	jaynagar	2002-04-03	1
1	300001	Teja	Kanala	teja123	tej123	None	2002-07-21	0
2	300002	Soumith	B	soumpi	sou123	bellary	2002-01-23	0
3	300003	Prathap	P	ptp45	12988	Near Electronic City Campus	2002-07-09	1
4	300020	Nayan	K Singh	Nayan@1	09876	puttur	2002-04-03	1
5	300021	Soumith	Sai	saisou123	12345	Ashok complex,Bellary	2002-01-23	0
6	300022	Shreya	Himachal	shrey@123	12345	Jayant Nagar,Ranchi	1996-12-06	0

Deletion:

Before deletion:

×

Menu

DELETE

Current data

	Tenant_ID	F_Name	L_Name	Username	Password	Tenant_Addr	DOB	Status
0	300000	Sathvik	A	sathvik12	sat123	jaynagar	2002-04-03	1
1	300001	Teja	Kanala	teja123	tej123	None	2002-07-21	0
2	300002	Soumith	B	soumpi	sou123	bellary	2002-01-23	0
3	300003	Prathap	P	ptp45	12988	Near Electronic City Campus	2002-07-09	1
4	300020	Nayan	K Singh	Nayan@1	09876	puttur	2002-04-03	1
5	300021	Soumith	Sai	saisou123	12345	Ashok complex,Bellary	2002-01-23	0

Select the tenants to be deleted

{300021, 'saisou... x

Do you want to delete the selected tenants?

After deletion:

×

Menu

DELETE

Current data

Select the tenants to be deleted

Choose an option

Submit

New data

	Tenant_ID	F_Name	L_Name	Username	Password	Tenant_Addr	DOB	Status
0	300000	Sathvik	A	sathvik12	sat123	jaynagar	2002-04-03	1
1	300001	Teja	Kanala	teja123	tej123	None	2002-07-21	0
2	300002	Soumith	B	soumpi	sou123	bellary	2002-01-23	0
3	300003	Prathap	P	ptp45	12988	Near Electronic City Campus	2002-07-09	1
4	300020	Nayan	K Singh	Nayan@1	09876	puttur	2002-04-03	1

Other Functional Features

Get a new Contract:

Menu

GET CONTRACT

Charter-Ghar

House Rental Management System

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NEW CONTRACT
Tenant, Owner gets into contract

SHOW CONTRACT AND ITS PAYMENTS
Showing payments related to that Contract_ID

ALL PAYMENTS
Each and every payment

DELETE C
Clear con

Select Tenant_ID to Login

300001

Current data

	Contract_ID	Start_Date	Duration	Rent_Cost_Duration	Owner_ID	Tenant_ID	House_ID
0	400001	2022-11-16	6	42000	100002	300020	200009
1	400003	2022-11-28	18	360000	100004	300000	200011
2	400009	2022-11-29	9	76500	100004	300003	200015
3	400010	2022-11-29	9	225000	100004	300000	200011

Tenant_ID

14

Total Rent

98000

Submit

Tenant_Id 300001 gets into the contract

	Contract_ID	Start_Date	Owner_ID	O_Fname	O_Lname	O_Ph	House_ID	House_Addr	Htype	BHK	Tenant_ID	T_Fname	T_Lname	T_Ph
0	400009	2022-11-29	100004	Om	Prasad	9780678542	200015	Near Electronic City Campus	4	4 BHK	300003	Prathap	P	9768457902
1	400010	2022-11-29	100004	Om	Prasad	9780678542	200011	jaynagar	4	4 BHK	300000	Sathvik	A	9067825372
2	400011	2022-12-01	100002	Dhanush	M D	9087565643	200009	puttur	1	1 BHK	300001	Teja	Kanala	6273682936
3	400012	2022-12-01	100002	Dhanush	M D	9087565643	200009	puttur	1	1 BHK	300001	Teja	Kanala	6273682936

New data

×

Menu

GET CONTRACT

14

− +

Total Rent

98000

− +

Submit

New data

	Contract_ID	Start_Date	Duration	Rent_Cost_Duration	Owner_ID	Tenant_ID	House_ID
0	400001	2022-11-16	6	42000	100002	300020	200009
1	400003	2022-11-28	18	360000	100004	300000	200011
2	400009	2022-11-29	9	76500	100004	300003	200015
3	400010	2022-11-29	9	225000	100004	300000	200011
4	400012	2022-12-01	14	98000	100002	300001	200009

Show Contract and Payment details of that contract

×

Menu

GET CONTRACT

Select Tenant_ID to Login

300001

▼

Show all contracts

	Contract_ID	Start_Date	Duration	Rent_Cost_Duration	Owner_ID	Tenant_ID	House_ID
0	400001	2022-11-16	6	42000	100002	300020	200009
1	400003	2022-11-28	18	360000	100004	300000	200011
2	400009	2022-11-29	9	76500	100004	300003	200015
3	400010	2022-11-29	9	225000	100004	300000	200011
4	400012	2022-12-01	14	98000	100002	300001	200009

Select Contract_Id to get the complete details

400001

×

⌵

	Contract_ID	Start_Date	Duration	Rent_Cost_Duration	Owner_ID	Tenant_ID	House_ID	Payment_ID	Pay_From	Payment_Date	Amount
0	400001	2022-11-16	6	42000	100002	300020	200009	500000	Nayan	2022-11-16	1500
1	400001	2022-11-16	6	42000	100002	300020	200009	500004	Nayan	2022-11-19	2000

This contract ends on 2023-05-16

All payments

Menu

GET CONTRACT

Charter-Ghar

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TRACT

er gets into contract

SHOW CONTRACT AND ITS PAYMENTS

Showing payments related to that Contract_ID

ALL PAYMENTS

Each and every payment

DELETE CONTRACT

Clear contract details

Select Tenant_ID to Login

300001

Show all Payments

	Payment_ID	Pay_From	Payment_Date	Amount	Tenant_ID	Contract_ID
0	500000	Nayan	2022-11-16	1500	300020	400001
1	500004	Nayan	2022-11-19	2000	300020	400001
2	500010	Sathvik	2022-11-24	20000	300000	400003

New Payment

ALL Payments of each Contract

Delete Contract and related Payments

Menu

GET CONTRACT

VRUSHANK G -- PES1UG20CS516

TRACT

er gets into contract

SHOW CONTRACT AND ITS PAYMENTS

Showing payments related to that Contract_ID

ALL PAYMENTS

Each and every payment

DELETE CONTRACT

Clear contract details

Select Tenant_ID to Login

300001

Current data

Select the Contract belonging to Tenant to delete

(400012, 300001)

Do you want to delete the selected contract record?

Submit

Successfully deleted

New data

2. There should be an window to accept and run any SQL statement and display the result

Menu
SQL Window

Charter-Ghar House Rental Management System

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Enter the SQL query in right MariaDB format!

```
select *from Owner;
```

	Owner_ID	F_Name	L_Name	Username	Password	Owner_Addr	DOB
0	100000	Vrushank	G	vrush41	12345	2nd cross,millerpet,bellary	2002-08-12
1	100001	Hemanth	N	hemanth28	23456	4th cross,gauribidanur,chikkaballapur	2002-01-28
2	100002	Dhanush	M D	mdebro	34567	2nd cross,puttur,mangaluru	2002-06-01

3.Modification suggested:

Trigger to display all the Contract details including Tenant details,House details,Owner details
Clearly after inserting into contract table

Menu
GET CONTRACT

14

Total Rent
98000

Submit

Tenant_Id 300001 gets into the contract ✓

	Contract_ID	Start_Date	Owner_ID	O_Fname	O_Lname	O_Ph	House_ID	House_Addr	Htype	BHK	Tenant_ID	T_Fname	T_Lname	T_Ph
0	400009	2022-11-29	100004	Om	Prasad	9780678542	200015	Near Electronic City Campus	4	4 BHK	300003	Prathap	P	9768457902
1	400010	2022-11-29	100004	Om	Prasad	9780678542	200011	jaynagar	4	4 BHK	300000	Sathvik	A	9067825372
2	400011	2022-12-01	100002	Dhanush	M D	9087565643	200009	puttur	1	1 BHK	300001	Teja	Kanala	6273682936
3	400012	2022-12-01	100002	Dhanush	M D	9087565643	200009	puttur	1	1 BHK	300001	Teja	Kanala	6273682936

New data