```
#create DATABASE Project;

#create table bookdetail(Book_Id int,Book_Name varchar(20),Authorname

#          varchar(20),Publish_date date,Quantity int,Price double);
```

```
#insert into bookdetail values(11220,"Graph Theory","M.D.Bagal",20210619,100,500),
 #                            (11225,"Linear Algebra","Nithya Sai Pandya",20221110,55,300),
 #                            (11233,"Pharmaceutical","S.C.Itkar",20180215,40,600),
 #                            (11240,"Organic Chemistry","Dr.O.P.Tandan",20220425,120,2000),
 #                            (11250,"Light Out","Janson Akansi",20070511,50,900),
 #                            (11265,"Electronic Principle","Albert P.",20210725,130,1500),
 #                            (11266,"Digital System","Neal S.Widmer",20160911,85,1150),
 #                            (11275,"Broken Wings","Sarojini Naidu",20100113,90,850),
 #                            (11310,"Metric Space","S.C.Sharma",20181505,40,2200);
```

```
#create DATABASE Project; #create table bookdetail(Book_Id int,Book_Name varchar(20),Authorname # varchar(20),Publish_date
date,Quantity int,Price double); insert into bookdetail values(11220,"Graph Theory","M.D.Bagal",20210619,100,500), (11225,"Linear
Algebra","Nithya Sai Pandya",20221110,55,300), (11233,"Pharmaceutical","S.C.Itkar",20180215,40,600), (11240,"Organic
Chemistry","Dr.O.P.Tandan",20220425,120,2000), (11250,"Light Out","Janson Akansi",20070511,50,900), (11265,"Electronic
Principle","Albert P.",20210725,130,1500), (11266,"Digital System","Neal S.Widmer",20160911,85,1150), (11275,"Broken
Wings","Sarojini Naidu",20100113,90,850), (11310,"Metric Space","S.C.Sharma",20181505,40,2200);
```

Book_Id	Book_Name	Authorname	Publish_date	Quantity	Price
11220	Graph Theory	M.D.Bagal	2021-06-19	100	500
11225	Linear Algebra	Nithya Sai Pandya	2022-11-10	55	300
11233	Pharmaceutical	S.C.Itkar	2018-02-15	40	600
11240	Organic Chemistry	Dr.O.P.Tandan	2022-04-25	120	2000
11250	Light Out	Janson Akansi	2007-05-11	50	900
11265	Electronic Principle	Albert P.	2021-07-25	130	1500
11266	Digital System	Neal S.Widmer	2016-09-11	85	1150
11275	Broken Wings	Sarojini Naidu	2010-01-13	90	850
11310	Metric Space	S.C.Sharma	0000-00-00	40	2200

```
update bookdetail
set Publish_date=20181017
where Book_Id=11310;
select * from bookdetail;
```

Book_Id	Book_Name	Authorname	Publish_date	Quantity	Price
11220	Graph Theory	M.D.Bagal	2021-06-19	100	500
11225	Linear Algebra	Nithya Sai Pandya	2022-11-10	55	300
11233	Pharmaceutical	S.C.Itkar	2018-02-15	40	600
11240	Organic Chemistry	Dr.O.P.Tandan	2022-04-25	120	2000
11250	Light Out	Janson Akansi	2007-05-11	50	900
11265	Electronic Principle	Albert P.	2021-07-25	130	1500
11266	Digital System	Neal S.Widmer	2016-09-11	85	1150
11275	Broken Wings	Sarojini Naidu	2010-01-13	90	850
11310	Metric Space	S.C.Sharma	2018-10-17	40	2200

```
#select * from bookdetail
#where Price>1100;
select Book_Name,Price,Authorname from bookdetail
where Quantity<60;
```

Book_Name	Price	Authorname
Linear Algebra	300	Nithya Sai Pandya
Pharmaceutical	600	S.C.Itkar
Light Out	900	Janson Akansi
Metric Space	2200	S.C.Sharma

```
#Query to delete row where price 600.
#delete from bookdetail
#where price=600;
SELECT *from bookdetail;
```

Book_Id	Book_Name	Authorname	Publish_date	Quantity	Price
11220	Graph Theory	M.D.Bagal	2021-06-19	100	500
11225	Linear Algebra	Nithya Sai Pandya	2022-11-10	55	300
11240	Organic Chemistry	Dr.O.P.Tandan	2022-04-25	120	2000
11250	Light Out	Janson Akansi	2007-05-11	50	900
11265	Electronic Principle	Albert P.	2021-07-25	130	1500
11266	Digital System	Neal S.Widmer	2016-09-11	85	1150
11275	Broken Wings	Sarojini Naidu	2010-01-13	90	850
11310	Metric Space	S.C.Sharma	2018-10-17	40	2200

```sql
#Query add a column named "book_pages" in bookdetail.
alter table bookdetail
add book_pages int;
SELECT *from bookdetail;
```

Book_Id	Book_Name	Authorname	Publish_date	Quantity	Price	book_pages
11220	Graph Theory	M.D.Bagal	2021-06-19	100	500	NULL
11225	Linear Algebra	Nithya Sai Pandya	2022-11-10	55	300	NULL
11240	Organic Chemistry	Dr.O.P.Tandan	2022-04-25	120	2000	NULL
11250	Light Out	Janson Akansi	2007-05-11	50	900	NULL
11265	Electronic Principle	Albert P.	2021-07-25	130	1500	NULL
11266	Digital System	Neal S.Widmer	2016-09-11	85	1150	NULL
11275	Broken Wings	Sarojini Naidu	2010-01-13	90	850	NULL
11310	Metric Space	S.C.Sharma	2018-10-17	40	2200	NULL

```sql
#Query drop a column named "book_pages" in bookdetail.
alter table bookdetail
drop column book_pages;
SELECT *from bookdetail;
```

Book_Id	Book_Name	Authorname	Publish_date	Quantity	Price
11220	Graph Theory	M.D.Bagal	2021-06-19	100	500
11225	Linear Algebra	Nithya Sai Pandya	2022-11-10	55	300
11240	Organic Chemistry	Dr.O.P.Tandan	2022-04-25	120	2000
11250	Light Out	Janson Akansi	2007-05-11	50	900
11265	Electronic Principle	Albert P.	2021-07-25	130	1500
11266	Digital System	Neal S.Widmer	2016-09-11	85	1150
11275	Broken Wings	Sarojini Naidu	2010-01-13	90	850
11310	Metric Space	S.C.Sharma	2018-10-17	40	2200

```
#Query bookdetail where Authorname is "Albert p" and book_name is "Electronic Principle".
select * from bookdetail
where Authorname="Albert P." AND
Book_Name="Electronic Principle";
```

Book_Id	Book_Name	Authorname	Publish_date	Quantity	Price
11265	Electronic Principle	Albert P.	2021-07-25	130	1500

```
# Query book_id ,publish_date from bookdetail where book_name is "Graph Theory" OR "Light Out".
select Book_Id,Publish_date from bookdetail
where Book_Name="Graph Theory" OR "Light Out";
```

Book_Id	Publish_date
11220	2021-06-19

```
#query list the bookdetail where is not book_id 11250.
select * from bookdetail
where NOt Book_Id=11250;
```

Book_Id	Book_Name	Authorname	Publish_date	Quantity	Price
11220	Graph Theory	M.D.Bagal	2021-06-19	100	500
11225	Linear Algebra	Nithya Sai Pandya	2022-11-10	55	300
11240	Organic Chemistry	Dr.O.P.Tandan	2022-04-25	120	2000
11265	Electronic Principle	Albert P.	2021-07-25	130	1500
11266	Digital System	Neal S.Widmer	2016-09-11	85	1150
11275	Broken Wings	Sarojini Naidu	2010-01-13	90	850
11310	Metric Space	S.C.Sharma	2018-10-17	40	2200

```
#Query list the Quantity are 80 and 155 from bookdetail do not show book_id of 11225,11250 or
11310.
select *from bookdetail
where Quantity BETWEEN 80 AND 155
AND Book_Id NOT IN(11225,11250,11310);
```

Book_Id	Book_Name	Authorname	Publish_date	Quantity	Price
11220	Graph Theory	M.D.Bagal	2021-06-19	100	500
11240	Organic Chemistry	Dr.O.P.Tandan	2022-04-25	120	2000
11265	Electronic Principle	Albert P.	2021-07-25	130	1500
11266	Digital System	Neal S.Widmer	2016-09-11	85	1150
11275	Broken Wings	Sarojini Naidu	2010-01-13	90	850

```
# Query calculate average price of all the bookdetail.
select AVG(Price) from bookdetail;
```

AVG(Price)
1175

```
#Query Count the number of bookdetail having price less than or equal to 900.
select count(Price) from bookdetail where Price<=900;

#Query list the bookdetail in a book_name whose first letter is'D'
select Book_Name from bookdetail where Book_Name Like "D%";
select*from bookdetail;
```

count(Price)

count(Price)
4

Book_Id	Book_Name	Authorname	Publish_date	Quantity	Price
11220	Graph Theory	M.D.Bagal	2021-06-19	100	500
11225	Linear Algebra	Nithya Sai Pandya	2022-11-10	55	300
11240	Organic Chemistry	Dr.O.P.Tandan	2022-04-25	120	2000
11250	Light Out	Janson Akansi	2007-05-11	50	900
11265	Electronic Principle	Albert P.	2021-07-25	130	1500
11266	Digital System	Neal S.Widmer	2016-09-11	85	1150
11275	Broken Wings	Sarojini Naidu	2010-01-13	90	850
11310	Metric Space	S.C.Sharma	2018-10-17	40	2200

```
#create table bookdetail(Book_Id int PRIMARY KEY,Book_Name varchar(20),Authorname
#              varchar(20),Publish_date date,Quantity int,Price double);
#create table students(stu_id int,stu_name varchar(20),Book_Id int,
#              FOREIGN key (Book_Id) REFERENCES bookdetail(Book_Id));
# insert into bookdetail values(11220,"Graph Theory","M.D.Bagal",20210619,100,500),
#                     (11225,"Linear Algebra","Nithya Sai Pandya",20221110,55,300),
#                     (11233,"Pharmaceutical","S.C.Itkar",20180215,40,600),
#                     (11240,"Organic Chemistry","Dr.O.P.Tandan",20220425,120,2000),
#                     (11250,"Light Out","Janson Akansi",20070511,50,900),
#                     (11265,"Electronic Principle","Albert P.",20210725,130,1500),
#                     (11266,"Digital System","Neal S.Widmer",20160911,85,1150),
#                     (11275,"Broken Wings","Sarojini Naidu",20100113,90,850),
#                     (11310,"Metric Space","S.C.Sharma",20181505,40,2200);
#insert into students values(101,"Soham",11220),(102,"Vidya",11240),
#                     (103,"Shiv",11265),(104,"Gargi",11250),
#                     (105,"Siya",11275);
```

```sql
select Book_Name,Quantity from bookdetail
where  Book_id=11250;
```

←T→				▼	Book_Name	Quantity
☐	✏ Edit	⊱ Copy	⊝ Delete		Light Out	50

```sql
update students
set stu_name="Omkar"
where stu_id=103;
select * from students;
```

stu_id	stu_name	Book_Id
101	Soham	11220
102	Vidya	11240
103	Omkar	11265
104	Gargi	11250
105	Siya	11275

```sql
#Left join
select bookdetail.Book_Id,Book_Name,Authorname,
stu_name,stu_id
from bookdetail left join students
on bookdetail.Book_Id=students.Book_Id;
```

Book_Id	Book_Name	Authorname	stu_name	stu_id
11220	Graph Theory	M.D.Bagal	Soham	101
11240	Organic Chemistry	Dr.O.P.Tandan	Vidya	102
11265	Electronic Principle	Albert P.	Omkar	103
11250	Light Out	Janson Akansi	Gargi	104
11275	Broken Wings	Sarojini Naidu	Siya	105
11225	Linear Algebra	Nithya Sai Pandya	NULL	NULL
11233	Pharmaceutical	S.C.Itkar	NULL	NULL
11266	Digital System	Neal S.Widmer	NULL	NULL
11310	Metric Space	S.C.Sharma	NULL	NULL

```
#Inner join
select *from bookdetail
INNER JOIN students ON
students.Book_Id=bookdetail.Book_Id;
```

Book_Id	Book_Name	Authorname	Publish_date	Quantity	Price	stu_id	stu_name	Book_Id
11220	Graph Theory	M.D.Bagal	2021-06-19	100	500	101	Soham	11220
11240	Organic Chemistry	Dr.O.P.Tandan	2022-04-25	120	2000	102	Vidya	11240
11265	Electronic Principle	Albert P.	2021-07-25	130	1500	103	Omkar	11265
11250	Light Out	Janson Akansi	2007-05-11	50	900	104	Gargi	11250
11275	Broken Wings	Sarojini Naidu	2010-01-13	90	850	105	Siya	11275

```
#create VIEW stu_detail AS
#select Book_Name,Authorname,stu_name
#from bookdetail,students
#where bookdetail.Book_Id=students.Book_Id;
select * from stu_detail;
```

←T→				Book_Name	Authorname	stu_name
☐	🖉 Edit	🖪 Copy	⊖ Delete	Graph Theory	M.D.Bagal	Soham
☐	🖉 Edit	🖪 Copy	⊖ Delete	Organic Chemistry	Dr.O.P.Tandan	Vidya
☐	🖉 Edit	🖪 Copy	⊖ Delete	Electronic Principle	Albert P.	Omkar
☐	🖉 Edit	🖪 Copy	⊖ Delete	Light Out	Janson Akansi	Gargi
☐	🖉 Edit	🖪 Copy	⊖ Delete	Broken Wings	Sarojini Naidu	Siya

■ Console

```
#Subquery
#select *from bookdetail where price>1000;
#select max(price) from bookdetail;
select Book_Name, Authorname,Quantity from bookdetail where price=
(select max(price) from bookdetail);
```

←T→				Book_Name	Authorname	Quantity
☐	🖉 Edit	🖪 Copy	⊖ Delete	Metric Space	S.C.Sharma	40

```
 #Query display all record of students whose stu_Name Sumit,soham,Omkar
select *from students where stu_name IN("Sumit","soham","Omkar");
```

stu_id	stu_name	Book_Id
101	Soham	11220
103	Omkar	11265