Q1.

Create a table students with columns: id (INT), name (VARCHAR, NOT NULL), and age (INT with default 18).

```
1   /* Create a table students with columns: id (INT), name (VARCHAR, NOT NULL), and age (INT with default 18).*/
2   create Database Assignment2;
3   use Assignment2;
4   create table students(id int,s_name varchar(20) not null,age int default 18);
5   insert into students values(1,'Ana',19),(2,'Bella',20);
6   select * from students;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

id	s_name	age
1	Ana	19
2	Bella	20

Q2.

Insert into students: (1, NULL, 20). What will happen?

```
-- Insert into students: (1, NULL, 20). What will happen?
insert into students values(1,null,20);
```

249 17:51:56 insert into students values(1,null,20) — Error Code: 1048. Column 's_name' cannot be null

Q3.

Insert into students: (2, 'Ravi'). What will be stored in age?

```
8   -- Q3. Insert into students: (2, 'Ravi'). What will be stored in age?
9   insert into students values(2,'Ravi',default);
10  select * from students;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

id	s_name	age
1	Ana	19
2	Bella	20
2	Ravi	18

Q4.
Why will the following query fail?

INSERT INTO students (id) VALUES (3);

```
23 •  select * from students;
24    -- Why will the following query fail? INSERT INTO students (id) VALUES (3);
25 •  insert into students (id) values(3);
```

Output

Action Output

#	Time	Action	Message
251	17:55:56	select * from students LIMIT 0, 1000	3 row(s) returned
252	18:00:42	insert into students (id) values(3)	Error Code: 1364. Field 's_name' doesn't have a default value

Q5.
Modify the students table so that the age column default changes from 18 to 21.

```
13    -- Q5. Modify the students table so that the age column default changes from 18 to 21.
14 •  alter table students modify age int default 21;
15 •  insert into students values(4,'avi',default);
16 •  select * from students;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

id	s_name	age
1	Ana	19
2	Bella	20
2	Ravi	18
4	avi	21

Q6.
Drop the NOT NULL constraint on the name column. Write the query.

```
17    -- Q6. Drop the NOT NULL constraint on the name column. Write the query.
18 •  alter table students drop s_name;
19
20
```

Output

Action Output

#	Time	Action	Message
255	18:07:15	select * from students LIMIT 0, 1000	4 row(s) returned
256	18:10:23	alter table students drop s_name	0 row(s) affected Records: 0 Duplicates: 0 Warnings:

Q7.

Create a table department with columns: dept_id (INT, PRIMARY KEY), dept_name (VARCHAR).

```
19    -- Q7. Create a table department with columns: dept_id (INT, PRIMARY KEY), dept_name (VARCHAR).
20 •  create table department(dept_id int primary key,dept_name varchar(20));
21
```

Output

Action Output

#	Time	Action	Message
256	18:10:23	alter table students drop s_name	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
257	18:15:00	create table department(dept_id int primary key,dept_name varchar(20))	0 row(s) affected

Q8.

Insert (1,'IT') and (1,'HR'). What error will you get?

```
21    --  Q8. Insert (1,'IT') and (1,'HR'). What error will you get?
22 •  insert into department values (1,'IT'),(1,'HR');
23
```

Output

Action Output

#	Time	Action	Message
257	18:15:00	create table department(dept_id int primary key,dept_name varchar(20))	0 row(s) affected
258	18:17:24	insert into department values (1,'IT'),(1,'HR')	Error Code: 1062. Duplicate entry '1' for key 'department.PRIMARY'

Q9.

Can a table have two PRIMARY KEYS? Demonstrate with a query.

```
23    -- Q9. Can a table have two PRIMARY KEYS? Demonstrate with a query.
24 •  create table department1(e_id int primary key,e_name varchar(10),e_rollno int primary key);
```

Output

Action Output

#	Time	Action	Message
259	18:20:50	create table department1(e_id int primary key,e_name varchar(10),e_rollno int primary key)	Error Code: 1068. Multiple primary key defined

Q10.

Create a table enrollment with composite primary key (student_id, course_id).

```
26 •  create table enrollment(student_id int not null, course_id int not null, primary key(student_id, course_id));
27 •  desc enrollment;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
student_id	int	NO	PRI	NULL	
course_id	int	NO	PRI	NULL	

Q11.

Try inserting (101, 'DBMS') twice into enrollment. What happens?

```
28    -- Q11. Try inserting (101, 'DBMS') twice into enrollment. What happens?
29 •  insert into enrollment values(101, 'DBMS'), (101, 'DBMS');
30
```

Output

Action Output

#	Time	Action	Message
262	18:25:38	desc enrollment	2 row(s) returned
263	18:27:23	insert into enrollment values(101, 'DBMS'), (101, 'DBMS')	Error Code: 1366. Incorrect integer value: 'DBMS' for column 'course_id' at row 1

Q12.

Create a table users with columns: user_id (INT, PRIMARY KEY, AUTO_INCREMENT), email (VARCHAR, UNIQUE).

```
31 •  create table users(id int primary key auto_increment,email varchar(20) unique);
32 •  desc users;
33
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
email	varchar(20)	YES	UNI	NULL	

```
31    -- Q12. Create a table users with columns: user_id (INT, PRIMARY KEY, AUTO_INCREMENT), email (VARCHAR, UNIQUE).
32 •  create table users(id int primary key auto_increment,email varchar(20) unique);
33 •  desc users;
34 •  insert into users (email) value('xyz@gmail.com');
35 •  select * from users;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	email
2	NULL
3	NULL
4	xyz@gmail.com
NULL	NULL

Q13.

Insert ('abc@mail.com') twice. What error occurs?

```
33    -- Q13.Insert ('abc@mail.com') twice. What error occurs?
34 •  insert into users values(1,'abc@mail.com'),(2,'abc@mail.com');
```

Output

Action Output

#	Time	Action	Message
265	18:33:15	desc users	2 row(s) returned
266	18:35:24	insert into users values(1,'abc@mail.com'),(2,'abc@mail.com')	Error Code: 1062. Duplicate entry 'abc@mail.com' for key 'users.email'

Q14.

Does the following query work? Why?

INSERT INTO users (email) VALUES (NULL);
INSERT INTO users (email) VALUES (NULL);

```
39 •  INSERT INTO users (email) VALUES (NULL);
40 •  INSERT INTO users (email) VALUES (NULL);
41 •  select * from users;
42
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Conte

id	email
2	NULL
3	NULL
NULL	NULL

Q15.

Create a table products with UNIQUE constraint on (sku, region).

```
45    -- Q15. Create a table products with UNIQUE constraint on (sku, region).
46 •  drop table products;
47 •  create table products(p_name varchar(20),sku varchar(20),region varchar(20),unique (sku,region));
48 •  desc products;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
p_name	varchar(20)	YES		NULL	
sku	varchar(20)	YES	MUL	NULL	
region	varchar(20)	YES		NULL	

Q16.

Insert (sku='A1', region='US') twice. What error?

```
49 •  select * from products;
50    -- Q16. Insert (sku='A1', region='US') twice. What error?
51 •  insert into products values('a','A1','US'),('a','A1','US');
52
53
```

Output

Action Output

#	Time	Action	Message
344	21:00:17	select * from products LIMIT 0, 1000	0 row(s) returned
345	21:01:17	insert into products values('a','A1','US'),('a','A1','US')	Error Code: 1062. Duplicate entry 'A1-US' for key 'products.sku'

Q17.

Create a table department with primary key dept_id. Then create employee table with foreign key dept_id referencing department.

```
45    -- Q17. Create a table department with primary key dept_id. Then create employee table with foreign key dept_id referencing department.
46 •  create table departmentt(dept_id int primary key,dept_name varchar(10));
47 •  create table employeee(emp_id int ,emp_name varchar(10),salary int,dept_id int,foreign key (dept_id) references departmentt(dept_id));
48 •  desc employeee;
49 •  desc departmentt;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
emp_id	int	YES		NULL	
emp_name	varchar(10)	YES		NULL	
salary	int	YES		NULL	
dept_id	int	YES	MUL	NULL	

Q18.

Insert into employee (emp_id=1, name='Asha', dept_id=99) when no such dept exists. What error?

```
59    -- Q18. Insert into employee (emp_id=1, name='Asha', dept_id=99) when no such dept exists. What error?
60 •  insert into employeee value(1,'Asha',9000,99);
61
62
```

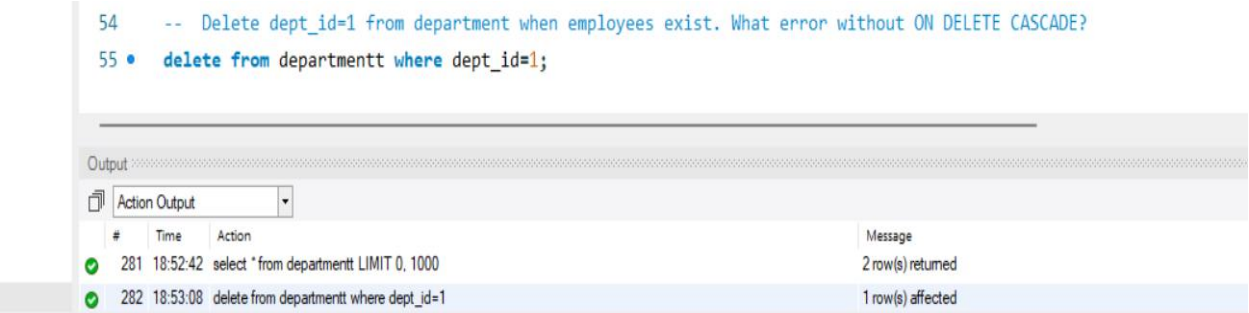
Output

Action Output

#	Time	Action	Message
346	21:03:38	insert into employeee value(1,'Asha',99.989999,99)	Error Code: 1136. Column count doesn't match value count at row 1
347	21:04:07	insert into employeee value(1,'Asha',9000,99)	Error Code: 1136. Column count doesn't match value count at row 1

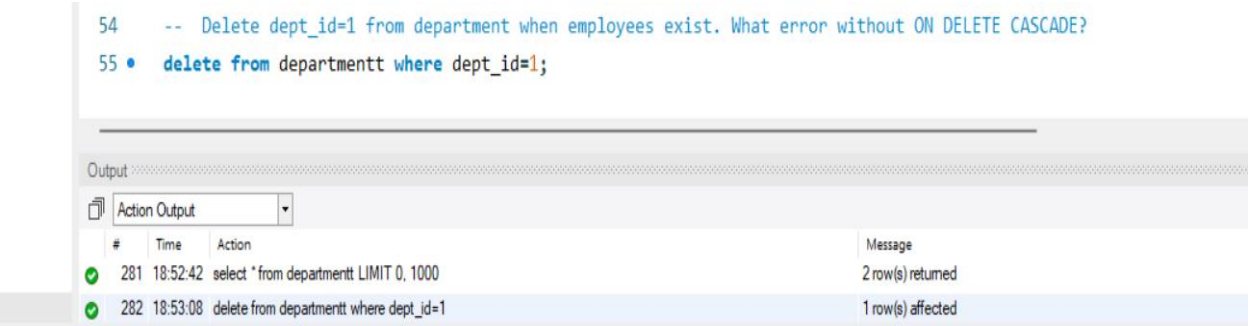
Q19.

Delete dept_id=1 from department when employees exist. What error without ON DELETE CASCADE?



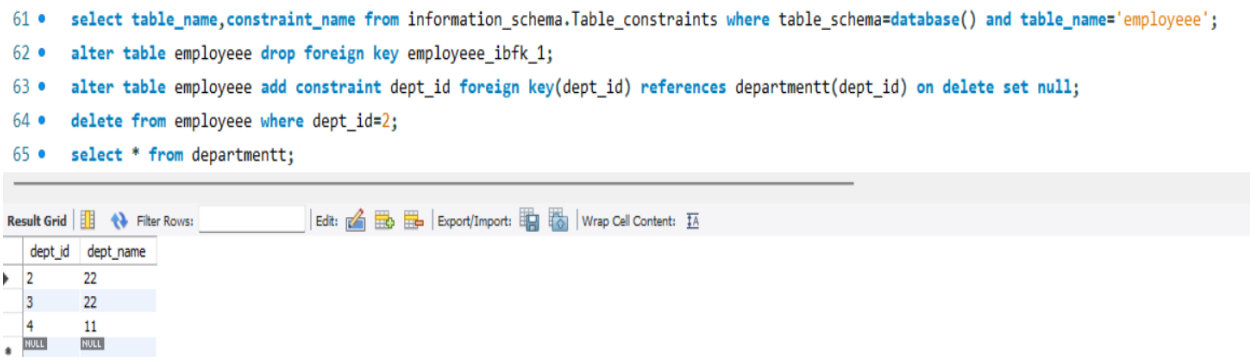
Q20.

Recreate employee table with ON DELETE CASCADE. What happens if you delete department 1?



Q21.

Use ON DELETE SET NULL in the foreign key. What happens when parent is deleted?



Q22.

Write a query to drop a foreign key constraint fk_emp_dept.

```
61 • select table_name,constraint_name from information_schema.Table_constraints where table_schema=database() and table_name='employeee';
62 • alter table employeee drop foreign key employeee ibfk 1;
```

Q23.

Add a new foreign key constraint fk_manager in employee table referencing itself (manager_id).

```
78 •  alter table employeee add manager_id int;
79 •  alter table employeee add constraint fk_manager foreign key(manager_id) references employeee(emp_id);
80 •  desc employeee;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
emp_id	int	NO	PRI	NULL	
emp_name	varchar(10)	YES		NULL	
salary	int	YES		NULL	
dept_id	int	YES	MUL	NULL	
manager_id	int	YES	MUL	NULL	

Q24.

Create table accounts with balance >= 0 using CHECK.

```
69    -- Q24. Create table accounts with balance >= 0 using CHECK.
70 •  create table accounts(holder_name varchar(20),balance float not null check (balance>=0));
71 •  insert into accounts values('AA',289999),('Bb',27878899);
72    -- insert into accounts value('DD',-778); error
73 •  select * from accounts;
74 •  desc accounts;
```

Output

Action Output

#	Time	Action	Message
328	19:28:50	insert into accounts value('CC',0)	1 row(s) affected
329	19:29:05	insert into accounts value('DD',-778)	Error Code: 3819. Check constraint 'accounts_chk_1' is violated.

Q25.

Insert (id=1, balance=-100). What happens?

```
75 •  insert into accounts value(1,-100);
```

Output

Action Output

#	Time	Action	Message
330	19:30:31	insert into accounts value(id=1,balance=-100)	Error Code: 1054. Unknown column 'id' in 'field list'
331	19:30:59	insert into accounts value(1,-100)	Error Code: 3819. Check constraint 'accounts_chk_1' is violated.

Q26.

Modify the constraint so that balance must be between 100 and 1,000,000.

```
88    -- Q26. Modify the constraint so that balance must be between 100 and 1,000,000.
89    select table_name,constraint_name from information_schema.Table_constraints where table_schema=database() and table_name='accounts';
90    alter table accounts drop constraint accounts_chk_1;
91    alter table accounts add constraint balance_chk check (balance between 100 and 1000000);
92
93
```

Output

Action Output

#	Time	Action	Message
387	21:57:41	alter table accounts add constraint balance_chk check (balance between 100 and 1000000)	1 row(s) affected Records: 1 Duplicates: 0 Warnings: 0
388	21:58:19	desc accounts	2 row(s) returned

Q27.

Try to insert (id=2, balance=50). What error do you get?

```
95    -- Q27. Try to insert (id=2, balance=50). What error do you get?
96    insert into accounts value('2',50);
```

Output

Action Output

#	Time	Action	Message
388	21:58:19	desc accounts	2 row(s) returned
389	22:01:43	insert into accounts value('2',50)	Error Code: 3819. Check constraint 'balance_chk' is violated.

Q28.

Create table invoices with invoice_id AUTO_INCREMENT PRIMARY KEY. Insert 3 rows. What will be the IDs?

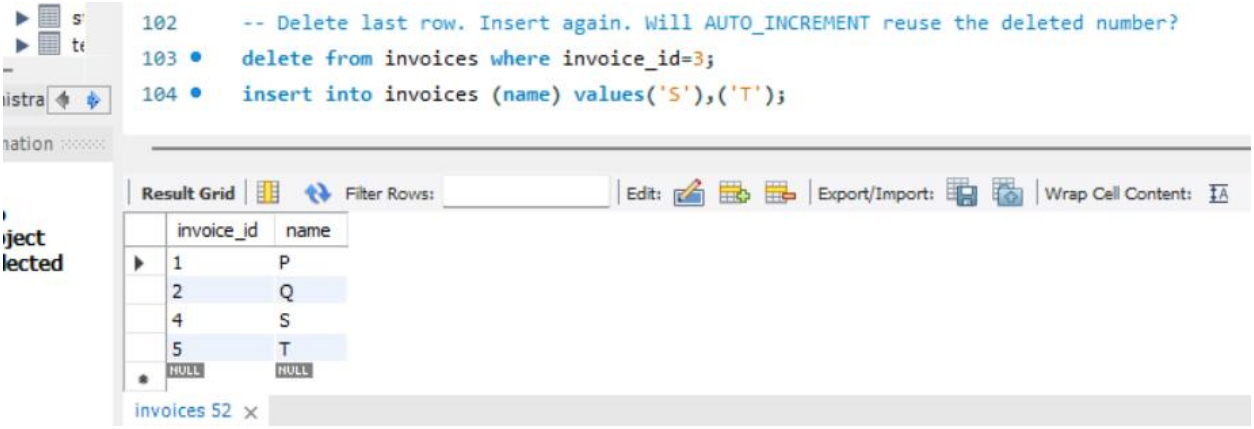
```
97    -- Q28. Create table invoices with invoice_id AUTO_INCREMENT PRIMARY KEY. Insert 3 rows. What will be the IDs?
98    create table invoices(invoice_id int AUTO_INCREMENT PRIMARY KEY,name varchar(10));
99    insert into invoices (name) values('P'),('Q'),('R');
100   select * from invoices;
101
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

invoice_id	name
1	P
2	Q
3	R
NULL	NULL

Q29.

Delete last row. Insert again. Will AUTO_INCREMENT reuse the deleted number?



```
102    -- Delete last row. Insert again. Will AUTO_INCREMENT reuse the deleted number?
103    delete from invoices where invoice_id=3;
104    insert into invoices (name) values('S'),('T');
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

invoice_id	name
1	P
2	Q
4	S
5	T
NULL	NULL

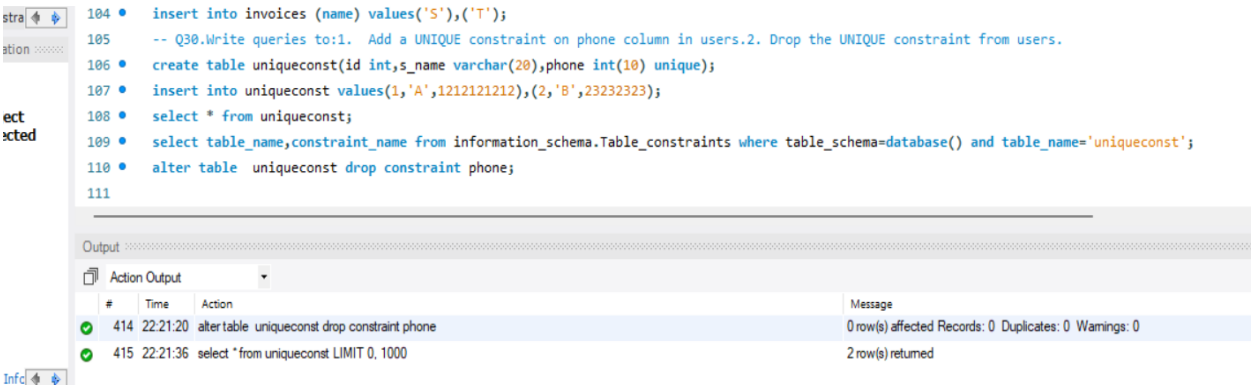
invoices 52

Q30.

Write queries to:

1. Add a UNIQUE constraint on phone column in users.

2. Drop the UNIQUE constraint from users.



```
104    insert into invoices (name) values('S'),('T');
105    -- Q30.Write queries to:1.  Add a UNIQUE constraint on phone column in users.2. Drop the UNIQUE constraint from users.
106    create table uniqueconst(id int,s_name varchar(20),phone int(10) unique);
107    insert into uniqueconst values(1,'A',1212121212),(2,'B',23232323);
108    select * from uniqueconst;
109    select table_name,constraint_name from information_schema.Table_constraints where table_schema=database() and table_name='uniqueconst';
110    alter table  uniqueconst drop constraint phone;
111
```

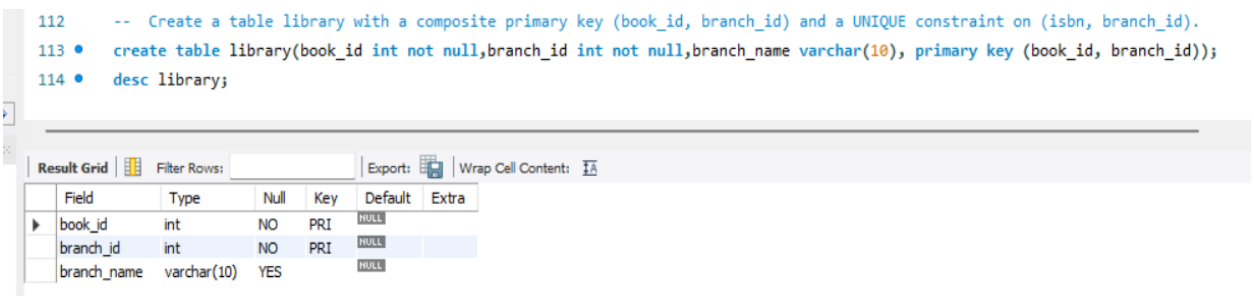
Output

Action Output

#	Time	Action	Message
414	22:21:20	alter table uniqueconst drop constraint phone	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
415	22:21:36	select * from uniqueconst LIMIT 0, 1000	2 row(s) returned

Q31.

Create a table library with a composite primary key (book_id, branch_id) and a UNIQUE constraint on (isbn, branch_id).



```
112    --  Create a table library with a composite primary key (book_id, branch_id) and a UNIQUE constraint on (isbn, branch_id).
113    create table library(book_id int not null,branch_id int not null,branch_name varchar(10), primary key (book_id, branch_id));
114    desc library;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
book_id	int	NO	PRI	NULL	
branch_id	int	NO	PRI	NULL	
branch_name	varchar(10)	YES		NULL	

Q32.

Insert (book_id=1, branch_id=101, isbn='A123') twice. What error occurs?

```
115    -- Insert (book_id=1, branch_id=101, isbn='A123') twice. What error occurs?
116    insert into library values(1,101,'isbn=A123'),(1,101,'isbn=A123');
```

Output

Action Output

#	Time	Action	Message
418	22:27:02	desc library	3 row(s) returned
419	22:30:43	insert into library values(1,101,'isbn=A123'),(1,101,'isbn=A123')	Error Code: 1062. Duplicate entry '1-101' for key 'library.PRIMARY'

Q33.

Insert (book_id=1, branch_id=102, isbn='A123'). Will it work? Why?

```
117    -- Q33. Insert (book_id=1, branch_id=102, isbn='A123'). Will it work? Why?
118 •  insert into library values(1,101,'isbn=A123'),(1,102,'isbn=A123');
```

Output

Action Output

#	Time	Action	Message
419	22:30:43	insert into library values(1,101,'isbn=A123'),(1,101,'isbn=A123')	Error Code: 1062. Duplicate entry '1-101' for key 'library.PRIMARY'
420	22:32:03	insert into library values(1,101,'isbn=A123'),(1,102,'isbn=A123')	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0

Q34.

Can you have a table with **PRIMARY KEY** and **multiple UNIQUE constraints**? Write a query.

```
119    -- Can you have a table with PRIMARY KEY and multiple UNIQUE constraints? Write a query.
120 •  create table study(sub_code int primary key,sub_name varchar(10) unique,sub_examid int unique,stu_enroll varchar(6), subteacher varchar(20), constraint unique_subject unique(subteacher));
121 •  desc study;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
sub_code	int	NO	PRI	NULL	
sub_name	varchar(10)	YES	UNI	NULL	
sub_examid	int	YES	UNI	NULL	
stu_enroll	varchar(6)	YES		NULL	
subteacher	varchar(20)	YES	UNI	NULL	

Result 57 | Read Only

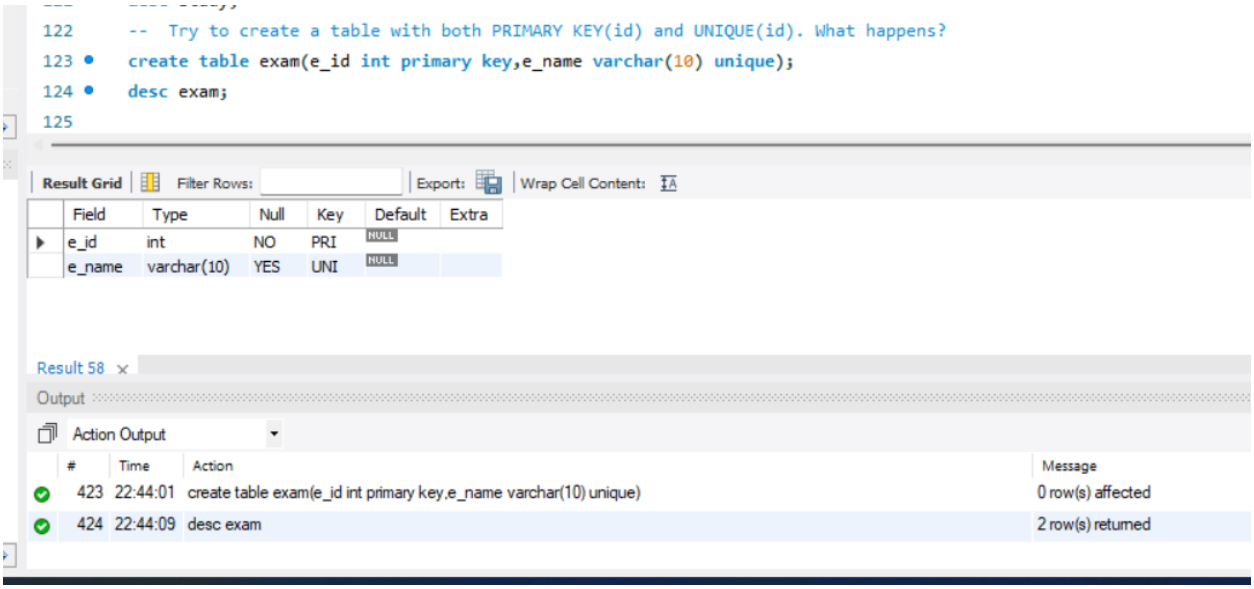
Output

Action Output

#	Time	Action	Message	Duration / Fetch
421	22:41:00	create table study(sub_code int primary key,sub_name varchar(10) unique,sub_examid int unique,stu_enroll varchar(6), s...	0 row(s) affected	0.032 sec
422	22:41:14	desc study	5 row(s) returned	0.000 sec / 0.000 sec

Q35.

Try to create a table with both PRIMARY KEY(id) and UNIQUE(id). What happens?



```
122    --  Try to create a table with both PRIMARY KEY(id) and UNIQUE(id). What happens?
123 •  create table exam(e_id int primary key,e_name varchar(10) unique);
124 •  desc exam;
125
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
e_id	int	NO	PRI	NULL	
e_name	varchar(10)	YES	UNI	NULL	

Result 58

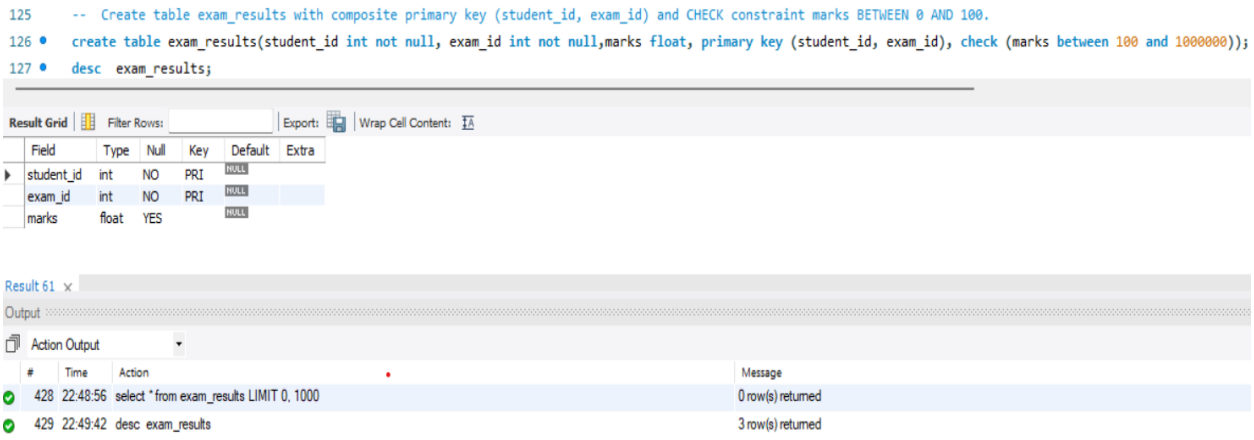
Output

Action Output

#	Time	Action	Message
423	22:44:01	create table exam(e_id int primary key,e_name varchar(10) unique)	0 row(s) affected
424	22:44:09	desc exam	2 row(s) returned

Q36.

Create table exam_results with composite primary key (student_id, exam_id) and CHECK constraint marks BETWEEN 0 AND 100.



```
125    -- Create table exam_results with composite primary key (student_id, exam_id) and CHECK constraint marks BETWEEN 0 AND 100.
126 •  create table exam_results(student_id int not null, exam_id int not null,marks float, primary key (student_id, exam_id), check (marks between 100 and 1000000));
127 •  desc  exam_results;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
student_id	int	NO	PRI	NULL	
exam_id	int	NO	PRI	NULL	
marks	float	YES		NULL	

Result 61

Output

Action Output

#	Time	Action	Message
428	22:48:56	select * from exam_results LIMIT 0, 1000	0 row(s) returned
429	22:49:42	desc exam_results	3 row(s) returned

Q37.

Create table orders referencing customers with ON UPDATE CASCADE. Update customer_id in parent – what happens in child?

```
129     -- Create table orders referencing customers with ON UPDATE CASCADE. Update customer_id in parent - what happens in child?
130 •   create table customer(c_id int primary key,c_name varchar(10));
131 •   create table orders(o_id int primary key,o_type varchar(10),c_id int,amt int,foreign key(c_id) references customer(c_id) on update cascade);
132 •   desc customer;
133 •   desc orders;
134 •   insert into customer values(1,'A'),(2,'B');
135 •   insert into orders values(11,'Bussiness',1,1000),(22,'Home',2,2900),(13,'Office',1,3000);
136 •   select * from customer;
137 •   select * from orders;
138 •   update customer set c_id=11 where c_id=1;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

o_id	o_type	c_id	amt
11	Bussiness	11	1000
13	Office	11	3000
22	Home	2	2900
NULL	NULL	NULL	NULL

orders 67 ×

Q38.

Try to use ON DELETE SET DEFAULT in a foreign key. What happens in MySQL?

```
139     -- Q38. Try to use ON DELETE SET DEFAULT in a foreign key. What happens in MySQL?
140 •   select table_name,constraint_name from information_schema.Table_constraints where table_schema=database() and table_name='orders';
141 •   alter table orders  drop constraint orders_ibfk_1;
142 ✖   alter table orders add constraint c_id foreign key(c_id) references customer(c_id) on delete set default;
143
```

Output

Action Output

#	Time	Action	Message
445	23:00:32	alter table orders drop constraint orders_ibfk_1	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
446	23:04:49	alter table orders add constraint c_id foreign key(c_id) references customer(c_id) on delete set default	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0

Q39.

Create a self-referencing foreign key categories(parent_id) referencing categories(id). Insert parent and child categories.

```
143     -- Create a self-referencing foreign key categories(parent_id) referencing categories(id). Insert parent and child categories.
144 •   create table categories(id int primary key,name varchar(10),p_id int, foreign key(p_id) references categories(id));
145 •   desc categories;
146
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
name	varchar(10)	YES		NULL	
p_id	int	YES	MUL	NULL	

```
144 • create table categories(id int primary key,name varchar(10),p_id int, foreign key(p_id) references categories(id));
145 • desc categories;
146 • insert into categories(id,name,p_id) values(1,'Tech',null),(2,'Non-Tech',null);
147 • insert into categories(id,name,p_id) values(11,'CSE',1),(22,'IT',1),(33,'Mech',2);
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	name	p_id
1	Tech	NULL
2	Non-Tech	NULL
11	CSE	1
22	IT	1
33	Mech	2
NULL	NULL	NULL

Q40.

What happens if you delete a parent row in categories without ON DELETE CASCADE?

```
149     -- Q40. What happens if you delete a parent row in categories without ON DELETE CASCADE?
150 •   delete from categories where id=1;
```

Output

Action Output

#	Time	Action	Message
452	23:15:23	select * from categories LIMIT 0, 1000	5 row(s) returned
453	23:18:59	delete from categories where id=1	Error Code: 1451. Cannot delete or update a parent row: a foreign key constraint fails (`assignment2`.`categories`, CONST...

Q41.

Write a query to temporarily disable foreign key checks and insert invalid data.

```
151     -- Q41. Write a query to temporarily disable foreign key checks and insert invalid data.
152 •  set foreign_key_checks=0;
153 •  insert into orders(o_id,o_type,c_id,amt) values(101,'Abc',11,700),(102,'Pqr',12,900);
154 •  select * from orders;
155 •  set foreign_key_checks=1;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

o_id	o_type	c_id	amt
11	Bussiness	11	1000
13	Office	11	3000
22	Home	2	2900
101	Abc	11	700
102	Pqr	12	900
NULL	NULL	NULL	NULL

Q42.

Write a query to re-enable foreign key checks.

```
155 •    set foreign_key_checks=1;
```

Result Grid | Filter Rows: | Edit: | Exp

o_id	o_type	c_id	amt
11	Bussiness	11	1000
13	Office	11	3000
22	Home	2	2900
101	Abc	11	700
102	Pqr	12	900
NULL	NULL	NULL	NULL

orders 72 ×

Output

Action Output

#	Time	Action
457	23:24:43	set foreign_key_checks=1
458	23:24:49	select * from orders LIMIT 0, 1000

Q43.

Explain with a query why indexes are automatically created when foreign keys are added.

```
156    -- Q43. Explain with a query why indexes are automatically created when foreign keys are added.
157 •  show index from orders;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
orders	0	PRIMARY	1	o_id	A	3	NULL	NULL		BTREE			YES	NULL
orders	1	c_id	1	c_id	A	2	NULL	NULL	YES	BTREE			YES	NULL

Q44.

Create a table employees with CHECK that salary > 20000.

```
158    -- Q44. Create a table employees with CHECK that salary > 20000.
159 •  create table emp(emp_id int ,emp_name varchar(10),salary int, check (salary>20000));
160 •  insert into emp values(11,'A',29000),(12,'B',39000);
```

Output

Action Output

#	Time	Action	Message
472	23:36:13	create table emp(emp_id int ,emp_name varchar(10),salary int, check (salary>20000))	0 row(s) affected
473	23:36:16	insert into emp values(11,'A',29000),(12,'B',39000)	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0

Q45.

Insert (id=1, salary=15000). What error code will you get?

```
161     -- Insert (id=1, salary=15000). What error code will you get?
162 •   insert into emp values(1,'C',15000);
```

Output

Action Output

#	Time	Action	Message
473	23:36:16	insert into emp values(11,'A',29000),(12,'B',39000)	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0
474	23:37:49	insert into emp values(1,'C',15000)	Error Code: 3819. Check constraint 'emp_chk_1' is violated.

Q46.

Add a CHECK constraint on gender column so only 'M' or 'F' is allowed.

```
163     -- Q46. Add a CHECK constraint on gender column so only 'M' or 'F' is allowed.
164 •   create table stuu(id int,name varchar(10),gender varchar(10), check(gender='M' or gender='F'));
165 •   insert into stuu values(1,'Ana','F'),(2,'Tim','M');
166 •   select * from stuu;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

id	name	gender
1	Ana	F
2	Tim	M

Q47.

Try inserting gender='X'. What happens?

```
166 •   select * from stuu;
167 •   insert into stuu values(3,'Nia','X');
```

Output

Action Output

#	Time	Action	Message
478	23:42:17	select * from stuu LIMIT 0, 1000	2 row(s) returned
479	23:43:12	insert into stuu values(3,'Nia','X')	Error Code: 3819. Check constraint 'stuu_chk_1' is violated.

Q48.

Add a foreign key constraint on employee.dept_id referencing department.dept_id.

```
169 •  create table depart(dept_id int primary key,dept_name varchar(10));
170 •  create table employ(emp_id int ,emp_name varchar(10),salary int,dept_id int,constraint fk_epm_dept foreign key (dept_id) references depart(dept_id));
171 •  desc employ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
emp_id	int	YES		NULL	
emp_name	varchar(10)	YES		NULL	
salary	int	YES		NULL	
dept_id	int	YES	MUL	NULL	

Q49.

Drop a primary key constraint from table library. What query do you use?

```
172      -- Q49. Drop a primary key constraint from table library. What query do you use?
173 •    alter table library drop primary key;
174 •    desc library;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
book_id	int	NO		NULL	
branch_id	int	NO		NULL	
branch_name	varchar(10)	YES		NULL	

Q50.

Rename a foreign key constraint fk_emp_dept to fk_employee_department.

```
178      -- Q50. Rename a foreign key constraint fk_emp_dept to fk_employee_department.
179 •    select table_name,constraint_name from information_schema.Table_constraints where table_schema=database() and table_name='employ';
180 •    alter table employ add constraint fk_employ_department foreign key(dept_id) references depart(dept_id);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

TABLE_NAME	CONSTRAINT_NAME
employ	fk_employ_department
employ	fk_epm_dept