Table: diabeties prediction

Columns:

EmployeeName	text
Patient_id	text
gender	text
age	int
hypertension	int
heart_disease	int
smoking_history	text
bmi	double
HbA1c_level	double
blood_glucose_level	int
diabetes	int

```sql
use dataanalysis;
# q-1 Select all female patients who are older than 40
select  EmployeeName,gender
from `diabeties prediction`
where gender="Female" and age>40
limit 15;

```

esult Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

EmployeeName	gender
NATHANIEL FORD	Female
GARY JIMENEZ	Female
ALSON LEE	Female
DAVID KUSHNER	Female
ARTHUR KENNEY	Female
PATRICIA JACKSON	Female
EDWARD HARRINGTON	Female
JOHN MARTIN	Female
DAVID FRANKLIN	Female

abeties prediction4 ×

```sql
use dataanalysis;
#List patients in descending order of blood glucose levels
select blood_glucose_level,EmployeeName
from `diabeties prediction`
order by blood_glucose_level DESC;

```

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

blood_glucose_level	EmployeeName
280	ROBERT ROSE
280	KHALED SHEHADEH
280	PATRICIA GRANDB...
280	RICHARD RIVAS
280	SANDRA MACLIN-G...
280	JOAN MCNAMARA
280	JAMES WILSON

eties prediction5

```sql
use dataanalysis;
#Find patients who have hypertension and diabetes.
select EmployeeName,hypertension,diabetes
from `diabeties prediction`
where hypertension=1 and diabetes=1 ;
```

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

EmployeeName	hypertension	diabetes
JONES WONG	1	1
PATRIC STEELE	1	1
ARTHUR STELLINI	1	1
CHAD LAW	1	1
CATHERINE JAMES	1	1
JOHN HART	1	1
JOHN BARKER	1	1

eties prediction6 ×

```sql
use dataanalysis;
#Find the patient with the highest HbA1c level and the patient with the lowestHbA
SELECT EmployeeName, HbA1c_level
FROM `diabeties prediction`
WHERE HbA1c_level = (SELECT max(HbA1c_level) FROM `diabeties prediction`) or
 HbA1c_level = (SELECT min(HbA1c_level) FROM `diabeties prediction` )
 order by HbA1c_level DESC ;
```

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

EmployeeName	HbA1c_level
MICHAEL THOMPSON	9
KEVIN CASHMAN	9
MARK CASTAGNOLA	9
WILLIAM SCOTT	9
JOANNE HOEPER	9
VINCENT PAMPANIN	9
FRANK KOSTA	9

eties prediction7 ×

Result Grid

Form Editor

Read Only

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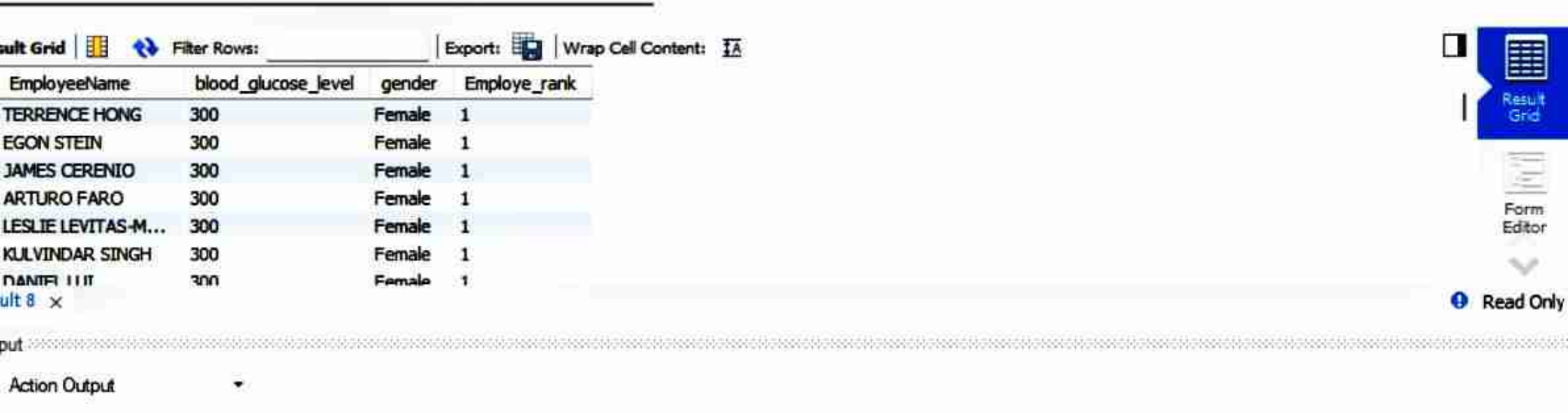
Action Output

#	Time	Action	Message
19	17:23:14	select EmployeeName,gender from `diabeties prediction` where gender="Female" and age>40 LIMIT 0, 50000	4776 row(s) returned
20	17:24:54	select EmployeeName,gender from `diabeties prediction` where gender="Female" and age>40 limit 15	15 row(s) returned
21	17:28:05	select blood_glucose_level,EmployeeName from `diabeties prediction` order by blood_glucose_level DESC LI...	15314 row(s) returned
22	17:30:28	select EmployeeName,hypertension,diabetes from `diabeties prediction` where hypertension=1 and diabetes=...	303 row(s) returned
23	17:31:43	SELECT EmployeeName, HbA1c_level FROM `diabeties prediction` WHERE HbA1c_level = (SELECT max(H...	1359 row(s) returned

```sql
use dataanalysis;
  #Rank patients by blood glucose level within each gender group
  select EmployeeName,blood_glucose_level,gender,
  RANK() OVER ( PARTITION BY gender ORDER BY blood_glucose_level desc) as Employe_
  FROM `diabeties prediction`
  order by Employe_rank asC;


```



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

EmployeeName	blood_glucose_level	gender	Employe_rank
TERRENCE HONG	300	Female	1
EGON STEIN	300	Female	1
JAMES CERENIO	300	Female	1
ARTURO FARO	300	Female	1
LESLIE LEVITAS-M...	300	Female	1
KULVINDAR SINGH	300	Female	1
DANIEL LUT	300	Female	1

Result Grid
Form Editor
Read Only

ult 8 ×

put

Action Output

```sql
use dataanalysis;
 #Retrieve the Patient_ids of patients who have a BMI greater than the average B
select Patient_id,bmi
 from `diabeties prediction`
 where bmi > (SELECT avg(bmi) FROM `diabeties prediction`);


```

Patient_id	bmi
T109	33.64
T112	54.7
T113	36.05
T117	30.36
T121	36.38
T124	27.94
T126	33.76

```sql
use dataanalysis;
 #Determine the number of patients with heart disease.
select count(heart_disease) as patient_count
from `diabeties prediction`
where heart_disease=1;
#Group patients by smoking history and count how many smokers and nonSTXsmokers
select smoking_history,count(*) as smokers_number
 from `diabeties prediction`
 group by smoking_history;
```

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

smoking_history	smokers_number
never	5477
No Info	5412
current	1419
former	1447
ever	600
not current	959

Result 10 ×

Output

Action Output

#	Time	Action	Message
22	17:30:28	select EmployeeName,hypertension,diabetes from `diabeties prediction` where hypertension=1 and diabetes=...	303 row(s) returned
23	17:31:43	SELECT EmployeeName, HbA1c_level FROM `diabeties prediction` WHERE HbA1c_level = (SELECT max(H...	1359 row(s) returned
24	17:33:11	select EmployeeName,blood_glucose_level,gender, RANK() OVER (PARTITION BY gender ORDER BY blo...	15314 row(s) returned
25	17:34:52	select Patient_id,bmi from `diabeties prediction` where bmi > (SELECT avg(bmi) FROM `diabeties prediction`) ...	5178 row(s) returned
26	17:46:14	select smoking_history,count(*) as smokers_number from `diabeties prediction` group by smoking_history LIMI...	6 row(s) returned

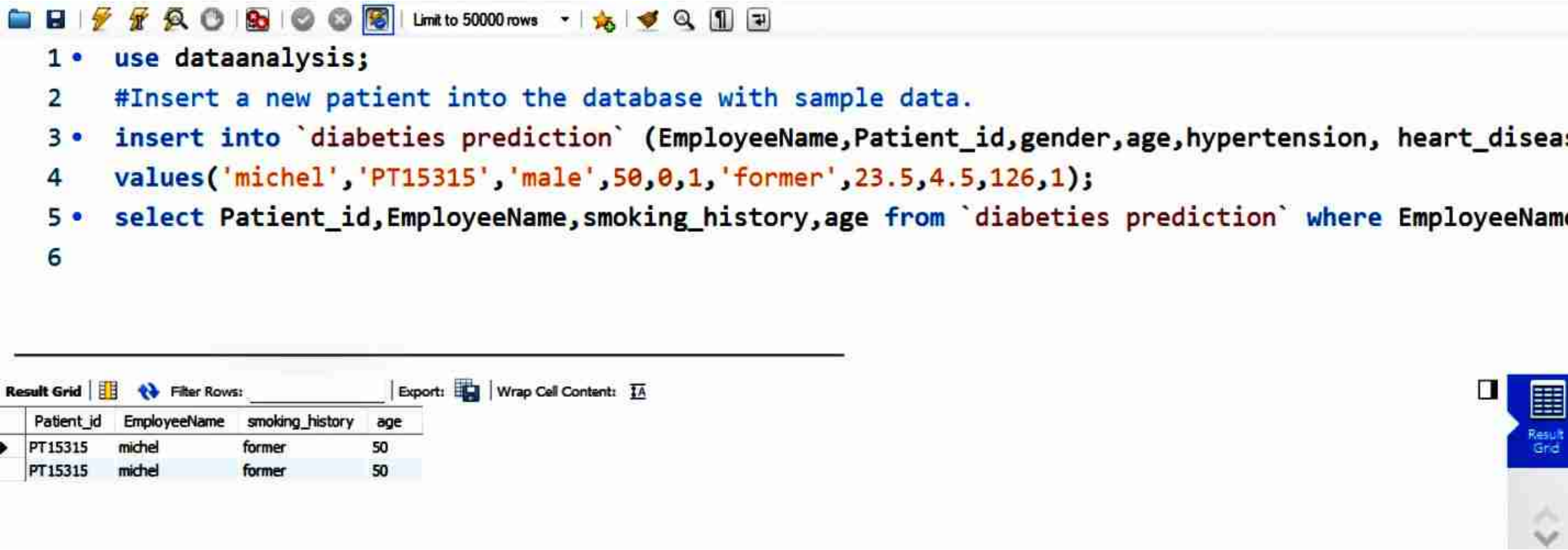
```sql
set SQL_safe_updates=0;
#Update the smoking history of patients who are older than 50 to "Ex-smoker."
update `diabeties prediction`
set smoking_history='Ex-smoker'
where age>50;
select EmployeeName,smoking_history,age from `diabeties prediction` where age>50;
```

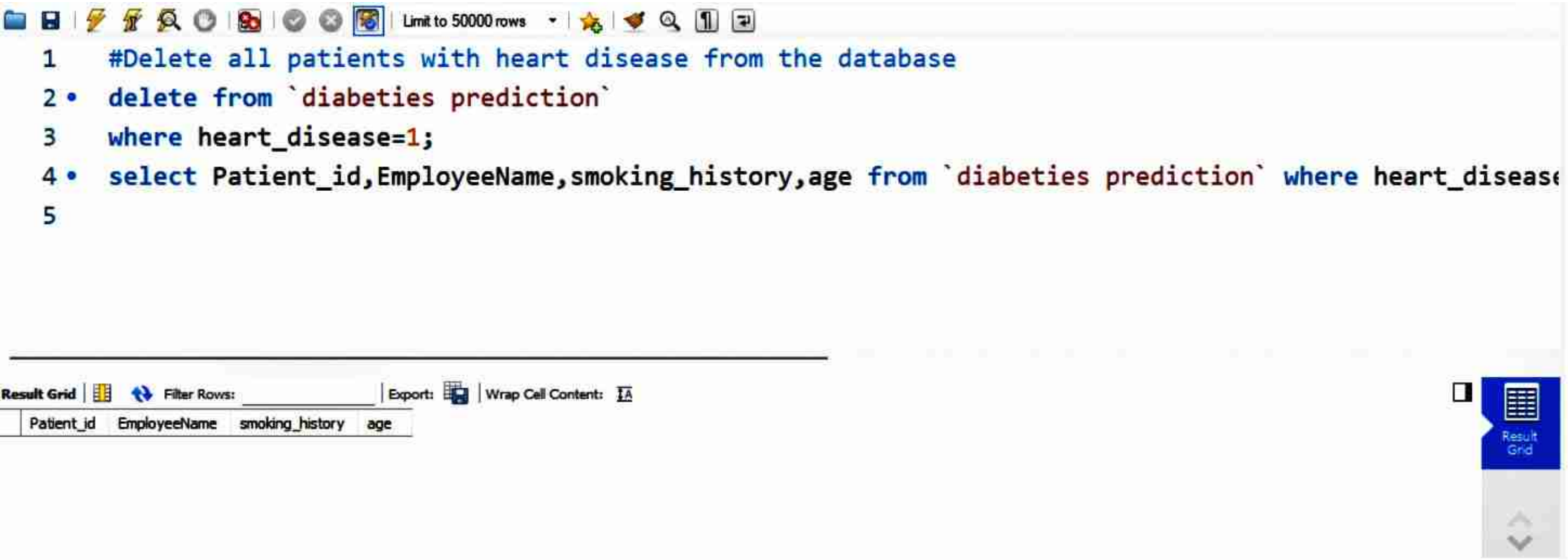
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

EmployeeName	smoking_history	age
NATHANIEL FORD	Ex-smoker	80
GARY JIMENEZ	Ex-smoker	54
PATRICK GARDNER	Ex-smoker	76
DAVID KUSHNER	Ex-smoker	79
ARTHUR KENNEY	Ex-smoker	53

iabeties prediction2 ×

Output


Limit to 50000 rows
1 • use dataanalysis;
2 #Insert a new patient into the database with sample data.
3 • insert into `diabeties prediction` (EmployeeName,Patient_id,gender,age,hypertension, heart_disea
4 values('michel','PT15315','male',50,0,1,'former',23.5,4.5,126,1);
5 • select Patient_id,EmployeeName,smoking_history,age from `diabeties prediction` where EmployeeNam
6
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
Patient_id
EmployeeName
smoking_history
age
PT15315
michel
former
50
PT15315
michel
former
50
Result Grid


Limit to 50000 rows
1 #Delete all patients with heart disease from the database
2 • delete from `diabeties prediction`
3 where heart_disease=1;
4 • select Patient_id,EmployeeName,smoking_history,age from `diabeties prediction` where heart_disease
5
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
Patient_id
EmployeeName
smoking_history
age
Result Grid

```sql
#Find patients who have hypertension but not diabetes using the EXCEPT operator
SELECT *FROM `diabeties prediction`
where hypertension=1
EXCEPT
SELECT *FROM `diabeties prediction`
where diabetes=1
```

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

EmployeeName	Patient_id	gender	age	hypertension	heart_disease	smoking_history	bmi	HbA1c_level	blood_glucose_level	diabetes
JASON MOSTASISA	PT6867	Female	47	1	0	never	34.13	6.1	160	0
ELIZABETH PRILLINGER	PT6869	Female	39	1	0	never	27.82	6	130	0
LILY NG	PT6878	Male	77	1	0	Ex-smoker	26.58	4.5	158	0
MICHELLE SPEARS	PT6885	Female	74	1	0	Ex-smoker	15.85	6.2	80	0
GLENN BROTMAN	PT6887	Female	56	1	0	Ex-smoker	38.83	4.8	145	0

```sql
#Define a unique constraint on the "patient_id" column to ensure its values are uniqu
SELECT *FROM `diabeties prediction` ;
alter table `diabeties prediction`
add constraint patient_id unique(patient_id(15));
```

Output

Action Output

#	Time	Action	Message
42	09:47:06	SELECT *FROM `diabeties prediction` constraint unique(patient_id)	Error Code: 1064. You have an error in your SQL syntax; check the manual tha
43	09:47:20	SELECT *FROM `diabeties prediction` constraint uc_diabeties prediction unique(patient_id)	Error Code: 1064. You have an error in your SQL syntax; check the manual tha
44	09:50:52	alter table diabeties prediction add constraint "patient_id" unique(patient_id)	Error Code: 1064. You have an error in your SQL syntax; check the manual tha
45	09:51:05	alter table diabeties prediction add constraint patient_id unique(patient_id)	Error Code: 1064. You have an error in your SQL syntax; check the manual tha
46	09:51:16	alter table `diabeties prediction` add constraint patient_id unique(patient_id)	Error Code: 1170. BLOB/TEXT column 'patient_id' used in key specification w
47	09:51:49	alter table `diabeties prediction` add constraint patient_id1 unique(patient_id)	Error Code: 1170. BLOB/TEXT column 'patient_id' used in key specification w
48	09:52:59	alter table `diabeties prediction` add constraint add unique(patient_id(15))	Error Code: 1064. You have an error in your SQL syntax; check the manual tha
49	09:53:41	alter table `diabeties prediction` add constraint patient_id unique(patient_id(15))	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0