

Md Faisal

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Business Analyst

Hackathon 2.0 (SQL)

1. Triangles Data The **TRIANGLES** table

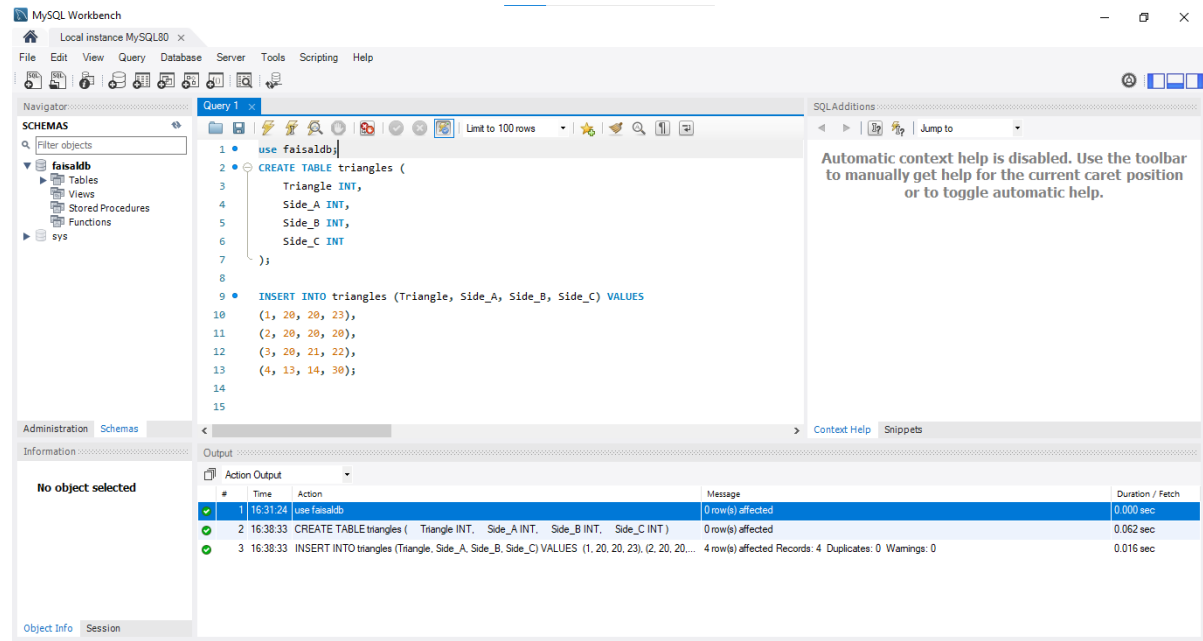
is described as follows:

Triangle	Side_A	Side_B	Side_C
1	20	20	23
2	20	20	20
3	20	21	22
4	13	14	30

Questions :

1. Write a query to create the **TRIANGLES** table. (**Note:-** In answer, submit all the table creation queries.)

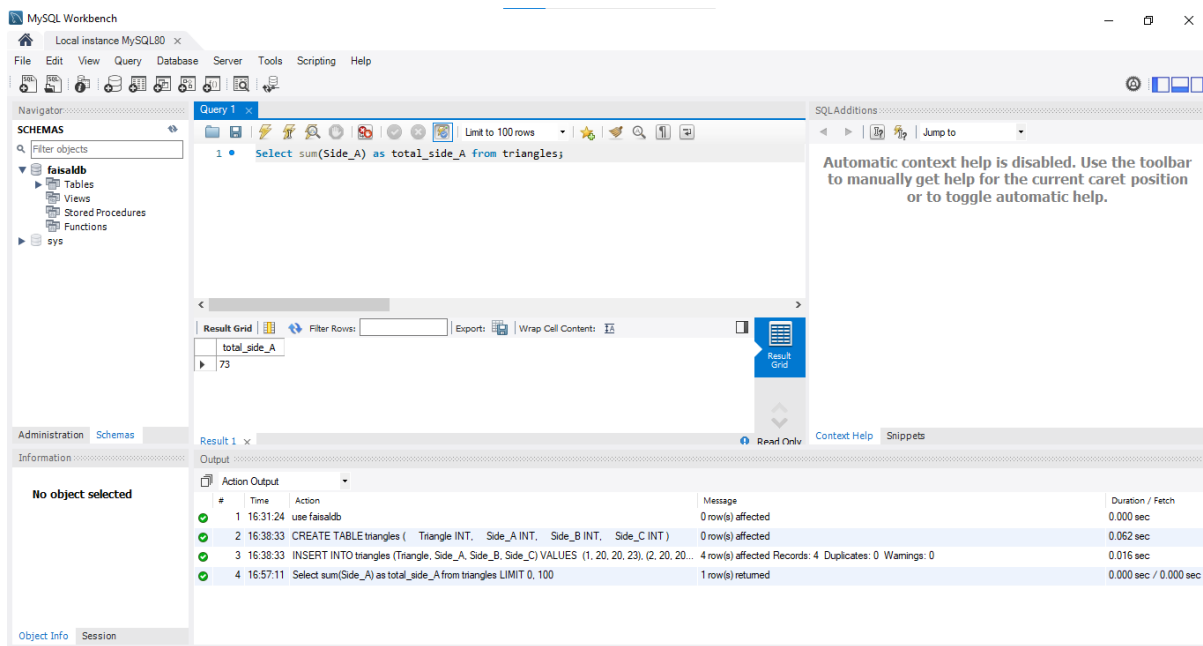
ANS :



2. Write queries to get output as per required :

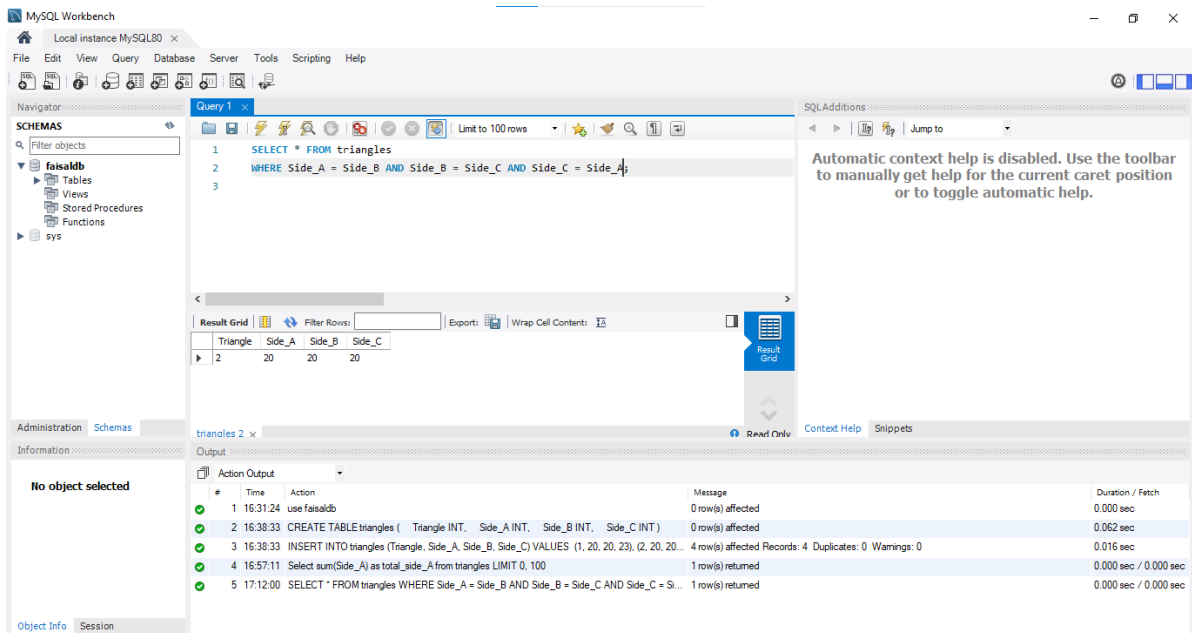
i) Write a query to obtain the sum of side_A of all triangles.

ANS :



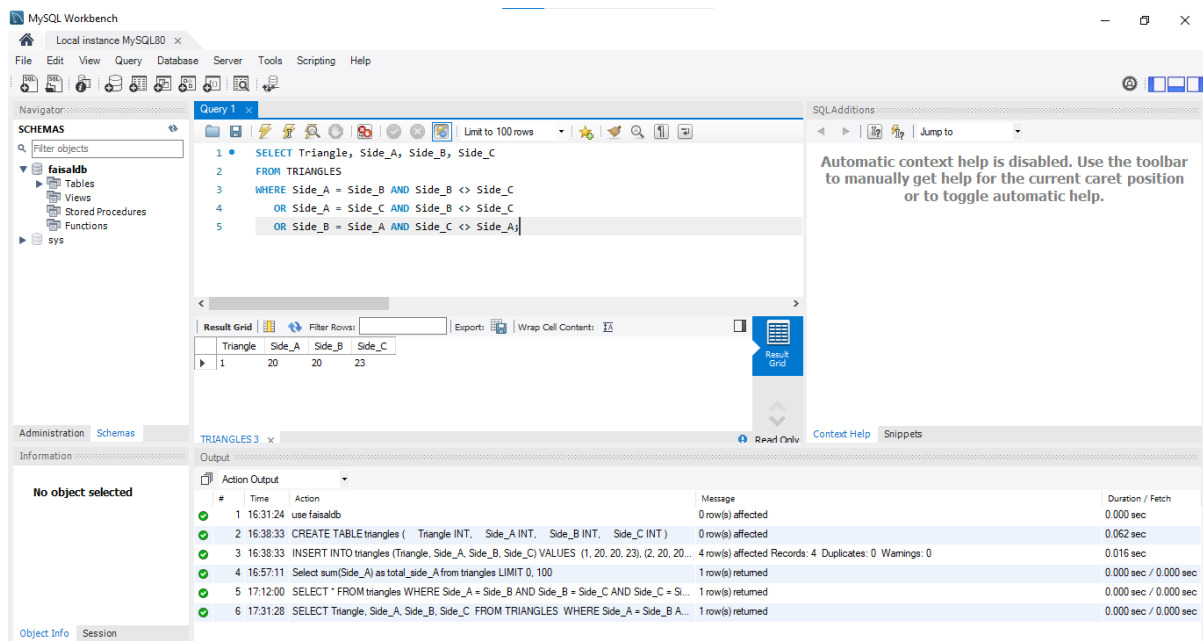
ii) Write a query to obtain an equilateral triangle from the table.

ANS :



iii) Write a query to obtain an isosceles triangle from the table.

ANS :



iv) Find the no. of triangles in the table.

ANS :

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

faissadb

Tables

Views

Stored Procedures

Functions

sys

Query 1

Limit to 100 rows

```
1 SELECT COUNT(*) AS Number_Of_Triangles
2 FROM TRIANGLES;
```

Result Grid

Filter Rows:

Export:

Wrap Cell Contents: $\frac{1}{2}$

Number_Of_Triangles

4

Administration Schemas

Information

No object selected

Object Info Session

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	16:31:24	use faissadb	0 row(s) affected	0.000 sec
2	16:38:33	CREATE TABLE triangles (Triangle INT, Side_A INT, Side_B INT, Side_C INT)	0 row(s) affected	0.062 sec
3	16:38:33	INSERT INTO triangles (Triangle, Side_A, Side_B, Side_C) VALUES (1, 20, 20, 23), (2, 20, 20, ...	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.016 sec
4	16:57:11	Select sum(Side_A) as total_side_A from triangles LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec
5	17:12:00	SELECT * FROM triangles WHERE Side_A = Side_B AND Side_B = Side_C AND Side_C = Side_A	1 row(s) returned	0.000 sec / 0.000 sec
6	17:31:28	SELECT Triangle, Side_A, Side_B, Side_C FROM TRIANGLES WHERE Side_A = Side_B AND Side_B = Side_C	1 row(s) returned	0.000 sec / 0.000 sec
7	17:37:22	SELECT COUNT(*) AS Number_Of_Triangles FROM TRIANGLES LIMIT 0, 100	1 row(s) returned	0.016 sec / 0.000 sec

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

v) Find the length of side_B of Triangle 3.

ANS :

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

faissadb

Tables

Views

Stored Procedures

Functions

sys

Query 1

Limit to 100 rows

```
1 SELECT Side_B FROM triangles
2 WHERE Triangle = 3;
```

Result Grid

Filter Rows:

Export:

Wrap Cell Contents: $\frac{1}{2}$

Side_B

21

Administration Schemas

Information

No object selected

Object Info Session

Output

Action Output

#	Time	Action	Message	Duration / Fetch
2	16:38:33	CREATE TABLE triangles (Triangle INT, Side_A INT, Side_B INT, Side_C INT)	0 row(s) affected	0.062 sec
3	16:38:33	INSERT INTO triangles (Triangle, Side_A, Side_B, Side_C) VALUES (1, 20, 20, 23), (2, 20, 20, ...	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.016 sec
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6	17:31:28	SELECT Triangle, Side_A, Side_B, Side_C FROM TRIANGLES WHERE Side_A = Side_B AND Side_B = Side_C	1 row(s) returned	0.000 sec / 0.000 sec
7	17:37:22	SELECT COUNT(*) AS Number_Of_Triangles FROM TRIANGLES LIMIT 0, 100	1 row(s) returned	0.016 sec / 0.000 sec
8	17:51:17	SELECT Side_B FROM triangles WHERE Triangle = 3 LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

2. Employees Data The **Employees** table

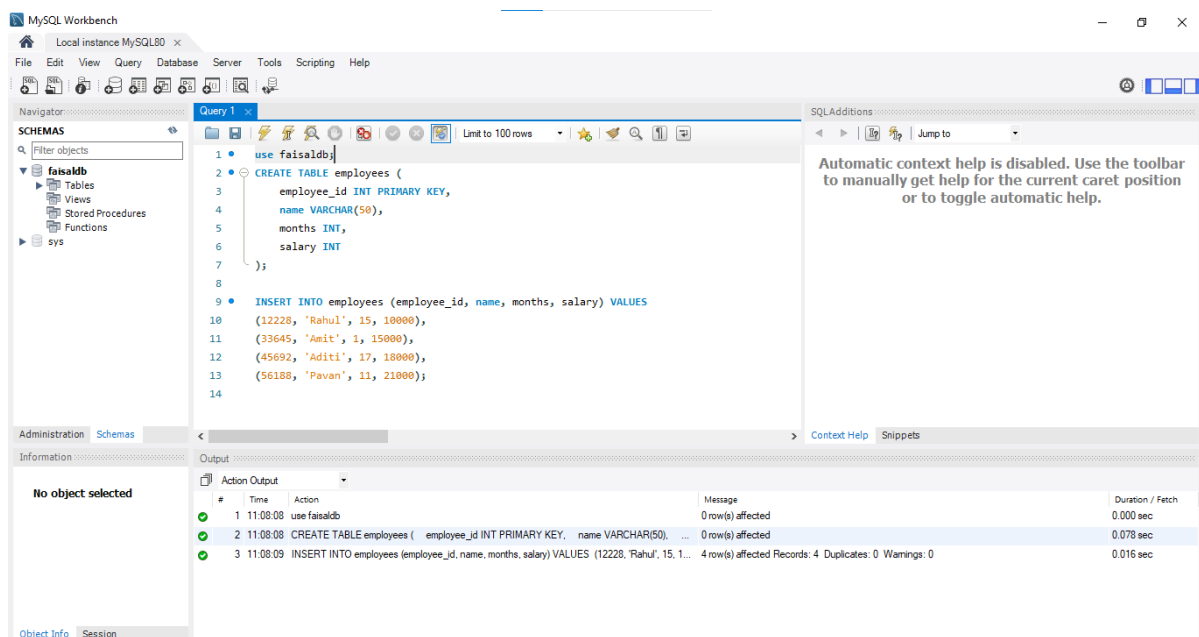
is described as follows :

Employee_id	Name	Months	Salary
12228	Rahul	15	10000
33645	Amit	1	15000
45692	Aditi	17	18000
56188	Pavan	11	21000

Questions :

1. Write a query to create the **Employees** table.
(Note:- In answer, submit all the table creation queries.)

ANS :



2. Write queries to get output as per required :

i) Count the total no. of employees.

ANS :

The screenshot shows the MySQL Workbench interface. The 'Query' tab is active, displaying the following SQL query:

```
1 SELECT COUNT(*) AS Total_no_of_employees FROM employees;
```

The 'Result Grid' shows the output of the query:

Total_no_of_employees
4

The 'Output' pane at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	11:08:08	use faissldb	0 row(s) affected	0.000 sec
2	11:08:08	CREATE TABLE employees (employee_id INT PRIMARY KEY, name VARCHAR(50), ...	0 row(s) affected	0.078 sec
3	11:08:09	INSERT INTO employees (employee_id, name, months, salary) VALUES (12228, 'Rahul', 15, ...	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.016 sec
4	11:12:27	SELECT COUNT(*) AS Total_no_of_employees FROM employees LIMIT 0, 100	1 row(s) returned	0.016 sec / 0.000 sec

ii) Find the salary of Rahul.

ANS :

The screenshot shows the MySQL Workbench interface. The 'Query' tab is active, displaying the following SQL query:

```
1 SELECT name , salary FROM employees
2 WHERE name = 'Rahul';
```

The 'Result Grid' shows the output of the query:

name	salary
Rahul	10000

The 'Output' pane at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	11:08:08	use faissldb	0 row(s) affected	0.000 sec
2	11:08:08	CREATE TABLE employees (employee_id INT PRIMARY KEY, name VARCHAR(50), ...	0 row(s) affected	0.078 sec
3	11:08:09	INSERT INTO employees (employee_id, name, months, salary) VALUES (12228, 'Rahul', 15, ...	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.016 sec
4	11:12:27	SELECT COUNT(*) AS Total_no_of_employees FROM employees LIMIT 0, 100	1 row(s) returned	0.016 sec / 0.000 sec
5	11:27:47	SELECT name , salary FROM employees WHERE name = 'Rahul' LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec

iii) Set Amit's months to 12.

ANS :

The screenshot shows MySQL Workbench with a query window containing the following SQL code:

```

1 UPDATE employees
2 SET months = 12
3 WHERE name = 'Amit';
4 select name, months from employees
5 where name = 'Amit';
6

```

The result grid below the query shows the following data:

name	months
Amit	12

The bottom panel shows the Action Output with the following messages:

#	Time	Action	Message	Duration / Fetch
3	11:08:09	INSERT INTO employees (employee_id, name, months, salary) VALUES (12220, 'Rahul', 15...	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.016 sec
4	11:12:27	SELECT COUNT(*) AS Total_no_of_employees FROM employees LIMIT 0, 100	1 row(s) returned	0.016 sec / 0.000 sec
5	11:27:47	SELECT name, salary FROM employees WHERE name = 'Rahul' LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec
6	11:30:09	UPDATE employees SET months = 12 WHERE name = 'Amit'	Error Code: 1175. You are using safe update mode and you tried to update a table without a ...	0.000 sec
7	11:34:52	SET SQL_SAFE_UPDATES = 0	0 row(s) affected	0.000 sec
8	11:35:38	UPDATE employees SET months = 12 WHERE name = 'Amit'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
9	11:38:22	select name, months from employees where name = 'Amit' LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec

iv) Find the sum of salaries of all employees.

ANS :

The screenshot shows MySQL Workbench with a query window containing the following SQL code:

```

1 SELECT SUM(salary) AS Total_salary
2 FROM employees;
3

```

The result grid below the query shows the following data:

Total_salary
64000

The bottom panel shows the Action Output with the following messages:

#	Time	Action	Message	Duration / Fetch
4	11:12:27	SELECT COUNT(*) AS Total_no_of_employees FROM employees LIMIT 0, 100	1 row(s) returned	0.016 sec / 0.000 sec
5	11:27:47	SELECT name, salary FROM employees WHERE name = 'Rahul' LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec
6	11:30:09	UPDATE employees SET months = 12 WHERE name = 'Amit'	Error Code: 1175. You are using safe update mode and you tried to update a table without a ...	0.000 sec
7	11:34:52	SET SQL_SAFE_UPDATES = 0	0 row(s) affected	0.000 sec
8	11:35:38	UPDATE employees SET months = 12 WHERE name = 'Amit'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
9	11:38:22	select name, months from employees where name = 'Amit' LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec
10	11:42:51	SELECT SUM(salary) AS Total_salary FROM employees LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec

v) Find no. of employees whose name starts with 'A'.

ANS :

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

faissadb

Tables

Views

Stored Procedures

Functions

sys

Query 1 x

1 • SELECT COUNT(*) AS Number_Of_Employees

2 FROM employees

3 WHERE name LIKE 'AS';

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

Filter Rows: Exports: Wrap Cell Content: Result Grid

Administration Schemas

Information

No object selected

Output

Action Output

#	Time	Action	Message	Duration / Fetch
5	11:27:47	SELECT name, salary FROM employees WHERE name = 'Rahul' LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec
6	11:30:09	UPDATE employees SET months = 12 WHERE name = 'Amit'	Error Code: 1175. You are using safe update mode and you tried to update a table without a ...	0.000 sec
7	11:34:52	SET SQL_SAFE_UPDATES = 0	0 row(s) affected	0.000 sec
8	11:35:38	UPDATE employees SET months = 12 WHERE name = 'Amit'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
9	11:38:22	select name, months from employees where name = 'Amit' LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec
10	11:42:51	SELECT SUM(salary) AS Total_salary FROM employees LIMIT 0, 100	1 row(s) returned	0.000 sec / 0.000 sec
11	11:46:15	SELECT COUNT(*) AS Number_Of_Employees FROM employees WHERE name LIKE 'A%';	1 row(s) returned	0.015 sec / 0.000 sec

Object Info Session