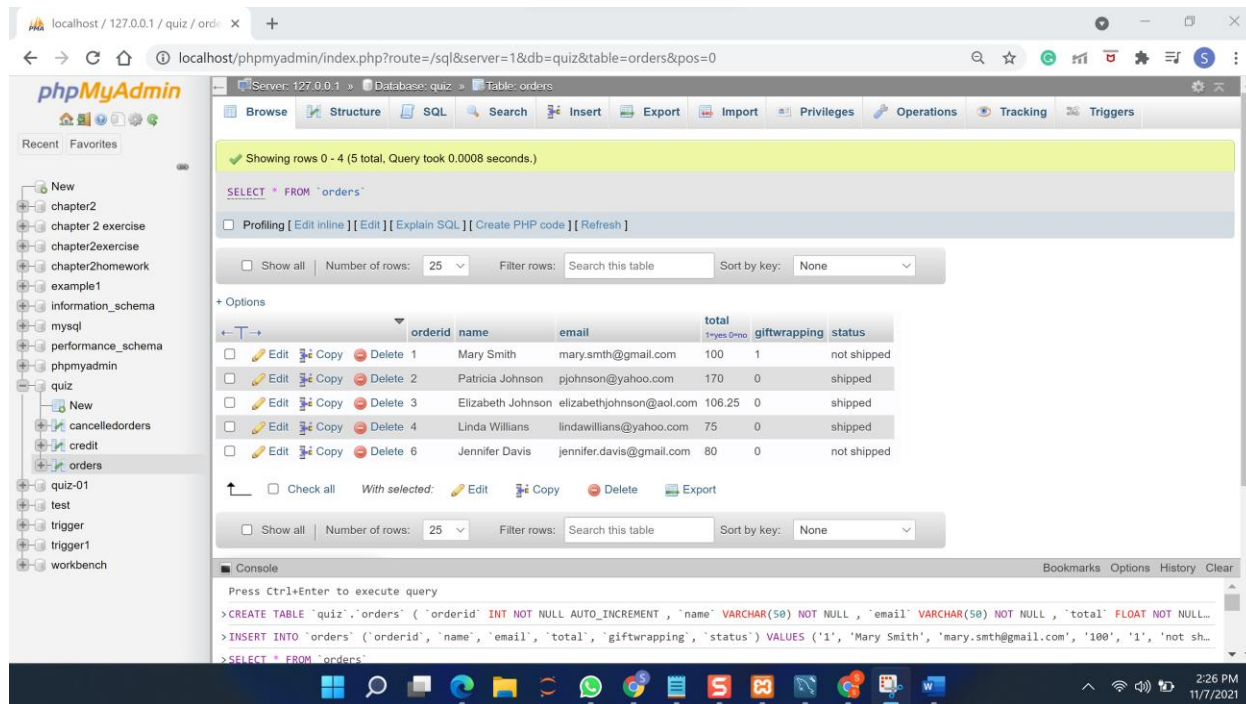


# DATABASE QUIZ



The screenshot shows the phpMyAdmin interface for a database named 'quiz'. The 'orders' table is selected, and its structure and data are displayed. The table has columns: orderid, name, email, total, giftwrapping, and status. The data is as follows:

orderid	name	email	total	giftwrapping	status
1	Mary Smith	mary.smth@gmail.com	100	1	not shipped
2	Patricia Johnson	pjohnson@yahoo.com	170	0	shipped
3	Elizabeth Johnson	elizabethjohnson@aol.com	106.25	0	shipped
4	Linda Williams	lindawilliams@yahoo.com	75	0	shipped
6	Jennifer Davis	jennifer.davis@gmail.com	80	0	not shipped

The console at the bottom shows the SQL commands used to create the table and insert data:

```
>CREATE TABLE `quiz`.`orders` ( `orderid` INT NOT NULL AUTO_INCREMENT , `name` VARCHAR(50) NOT NULL , `email` VARCHAR(50) NOT NULL , `total` FLOAT NOT NULL...  
>INSERT INTO `orders` (`orderid`, `name`, `email`, `total`, `giftwrapping`, `status`) VALUES ('1', 'Mary Smith', 'mary.smth@gmail.com', '100', '1', 'not sh...  
>SELECT * FROM `orders`;
```

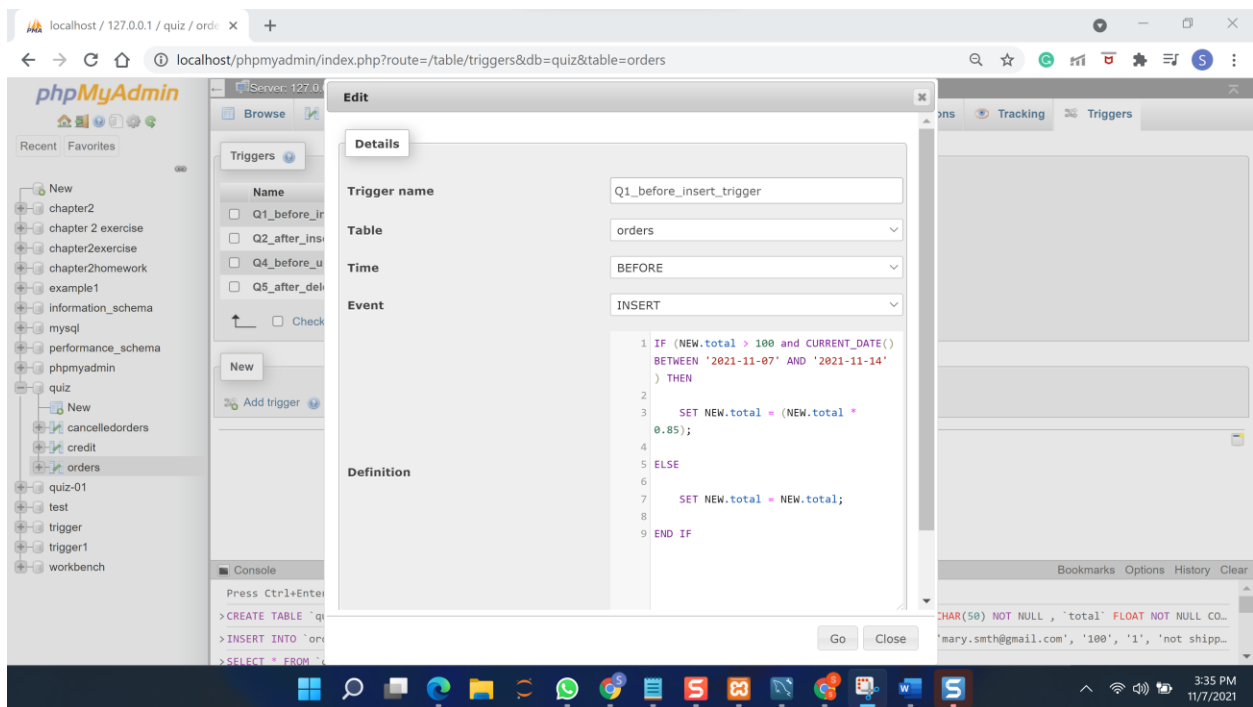
**FIG 1: ORDERS TABLE**

**Question 1: The total column in the order table represents the total cost of an order in dollars. The company would like to make 15% discount for any order with a total value greater than \$100 between 11/9/2021 and 11/14/2021. Attach a before insert trigger to the order table based on the above business logic. Then, insert the following orders into the order table. Double check your answers to make sure that the trigger inserts discounted prices for the orders when conditions are met. (20 points)**

OrderID	Name	Email	Total	GiftWrapping	Status
1	Mary Smith	mary.smith@gmail.com	100	1	not shipped
2	Patricia Johnson	pjohnson@yahoo.com	200	0	shipped
3	Elizabeth Brown	elizabethbrown@aol.com	125	0	shipped

**Notes: In the giftwrapping column, 1 means the customer wants the order to be wrapped as a gift. 0 means the opposite.**

**Answer:**



**FIG 2: Q1 Before Insert Trigger**

localhost / 127.0.0.1 / quiz / orde x +

localhost/phpmyadmin/index.php?route=/sql&db=quiz&table=orders&pos=0

phpMyAdmin

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- trigger
- trigger1
- workbench

Server: 127.0.0.1 > Database: quiz > Table: orders

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 4 (5 total, Query took 0.0020 seconds.)

SELECT \* FROM `orders`

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

Options

	orderid	name	email	total	giftwrapping	status
<input type="checkbox"/>	1	Mary Smith	mary.smth@gmail.com	100	1	not shipped
<input type="checkbox"/>	2	Patricia Johnson	pjohnson@yahoo.com	170	0	shipped
<input type="checkbox"/>	3	Elizabeth Johnson	elizabethjohnson@aol.com	106.25	0	shipped
<input type="checkbox"/>	4	Linda Williams	lindawilliams@yahoo.com	75	0	shipped
<input type="checkbox"/>	6	Jennifer Davis	jennifer.davis@gmail.com	80	0	not shipped

Check all With selected: Edit Copy Delete Export

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

Console

Press Ctrl+Enter to execute query

```
>CREATE TABLE `quiz`.`orders` ( `orderid` INT NOT NULL AUTO_INCREMENT , `name` VARCHAR(50) NOT NULL , `email` VARCHAR(50) NOT NULL , `total` FLOAT NOT NULL , `giftwrapping` TINYINT NOT NULL , `status` VARCHAR(20) NOT NULL ) ENGINE=InnoDB;  
>INSERT INTO `orders` (`orderid`, `name`, `email`, `total`, `giftwrapping`, `status`) VALUES ('1', 'Mary Smith', 'mary.smth@gmail.com', '100', '1', 'not shipped');  
>SELECT * FROM `orders`;
```

3:54 PM 11/7/2021

FIG 3: OUTPUT OF QUESTION 1

**Question 2: Giftwrapping has always been a free service offered by the company. However, given the challenges of the pandemic, the company would like to offer \$1.50 credit incentive to those customers who did not request a free giftwrapping service. The company would like to automatically record all orders with the giftwrapping zero value in a credit table as shown below. Create the table below.**

The screenshot displays the phpMyAdmin interface for a database named 'quiz'. The 'Table: credit' structure is shown with the following columns:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	orderid	int(11)			No	None			Change Drop More
2	name	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
3	email	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
4	giftwrapping	tinyint(4)			No	None			Change Drop More
5	credit	double			No	None			Change Drop More

The console at the bottom shows the following SQL queries:

```

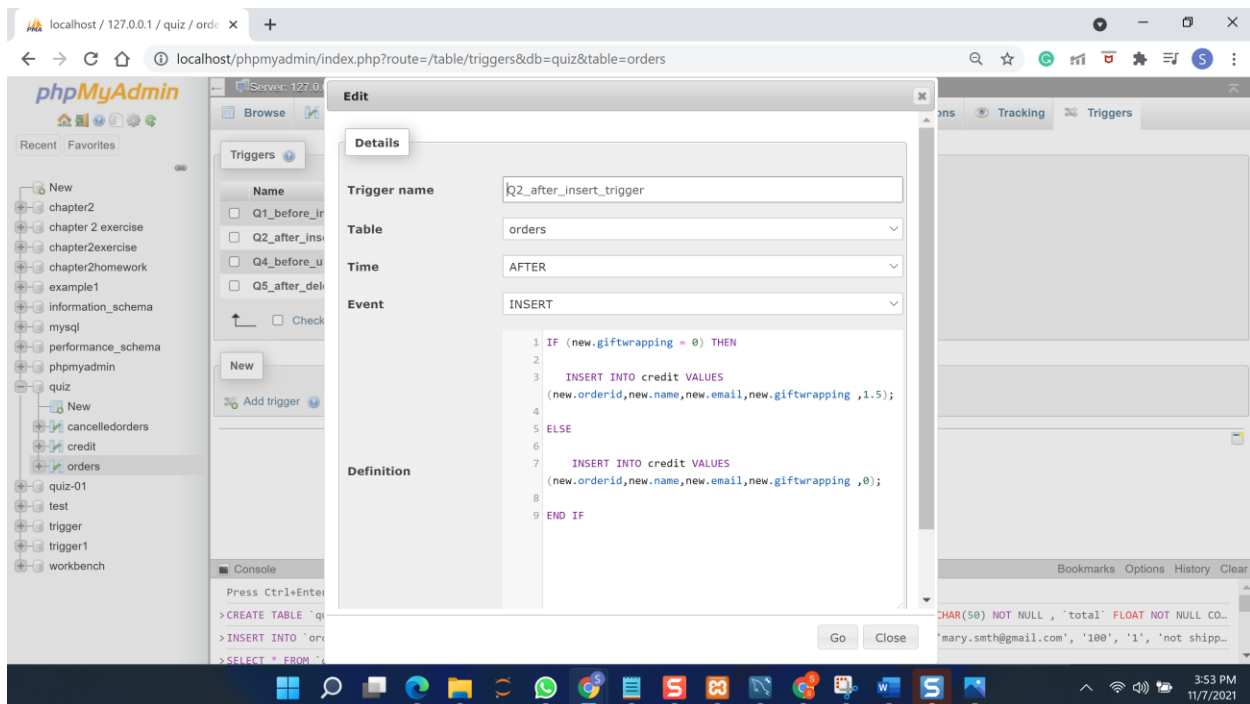
>CREATE TABLE `quiz`.`orders` ( `orderid` INT NOT NULL AUTO_INCREMENT , `name` VARCHAR(50) NOT NULL , `email` VARCHAR(50) NOT NULL , `total` FLOAT NOT NULL...
>INSERT INTO `orders` (`orderid`, `name`, `email`, `total`, `giftwrapping`, `status`) VALUES ('1', 'Mary Smith', 'mary.smth@gmail.com', '100', '1', 'not sh...
>SELECT * FROM `orders`
  
```

**FIG 4: CREDIT TABLE**

**Next, attach an after insert trigger to the order table to insert the new orders with no giftwrapping into the credit table. Test your after insert trigger by inserting the following records into the orders table. Make sure the credit column displays 1.50 for all records in the credit table in an automated way. (10 points)**

OrderID	Name	Email	Total	GiftWrapping	Status
4	Linda Williams	lindawilliams@yahoo.com	75	0	shipped
5	Barbara Jones	barbarajones@hotmail.com	90	1	not shipped
6	Jennifer Davis	jennifer.davis@gmail.com	80	0	not shipped

**Answer:**



**FIG 5: Q2\_after\_insert\_trigger**

localhost / 127.0.0.1 / quiz / credit

localhost/phpmyadmin/index.php?route=/sql&db=quiz&table=credit&pos=0

phpMyAdmin

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  - credit
  - orders
- quiz-01
- test
- trigger
- trigger1
- workbench

Server: 127.0.0.1 > Database: quiz > Table: credit

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 2 (3 total, Query took 0.0010 seconds.)

SELECT \* FROM `credit`

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

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

+ Options

orderid	name	email	giftwrapping	credit
4	Linda Williams	lindawilliams@yahoo.com	0	1.5
5	Barbara Jones	barbarajones@hotmail.com	1	0
6	Jennifer Davis	jennifer.davis@gmail.com	0	1.5

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

Query results operations

Print Copy to clipboard Export Display chart Create view

Console

Press Ctrl+Enter to execute query

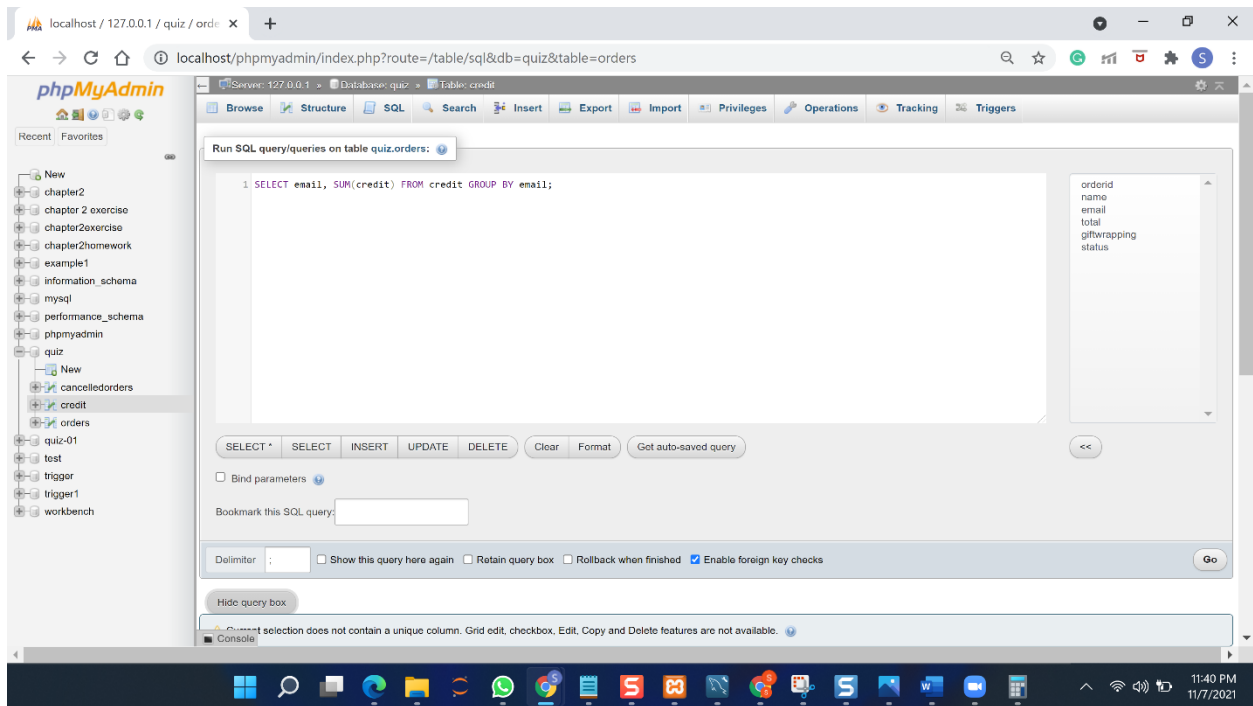
```
>CREATE TABLE `quiz`.`orders` ( `orderid` INT NOT NULL AUTO_INCREMENT , `name` VARCHAR(50) NOT NULL , `email` VARCHAR(50) NOT NULL , `total` FLOAT NOT NULL...
>INSERT INTO `orders` (`orderid`, `name`, `email`, `total`, `giftwrapping`, `status`) VALUES ('1', 'Mary Smith', 'mary.smth@gmail.com', '100', '1', 'not sh...
>SELECT * FROM `orders`
```

3:52 PM 11/7/2021

Fig 6: Output of Question 2

**Question 3: This is a critical thinking question based on the material covered in class so far. Implement an automated way for the company to calculate the total credit amount per customer. Describe the advantages and potential limitations of your solution. (10 points)**

**Answer:**



**FIG 7: QUERY**

localhost / 127.0.0.1 / quiz / orde x +

localhost/phpmyadmin/index.php?route=/table/sql&db=quiz&table=orders

phpMyAdmin

Recent Favorites

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- mysql
- performance\_schema
- phpmyadmin
- quiz
  - New
  - cancelledorders
  - credit
  - orders
- quiz-01
- test
- trigger
- trigger1
- workbench

Server: 127.0.0.1 - Database: quiz - Table: credit

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 2 (3 total, Query took 0.0017 seconds.)

```
SELECT email, SUM(credit) FROM credit GROUP BY email;
```

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

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

Options

email	SUM(credit)
barbarajones@hotmail.com	0
janifer.davis@gmail.com	1.5
lindawilliams@yahoo.com	1.5

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

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label:  ☐ Let every user access this bookmark

Bookmark this SQL query

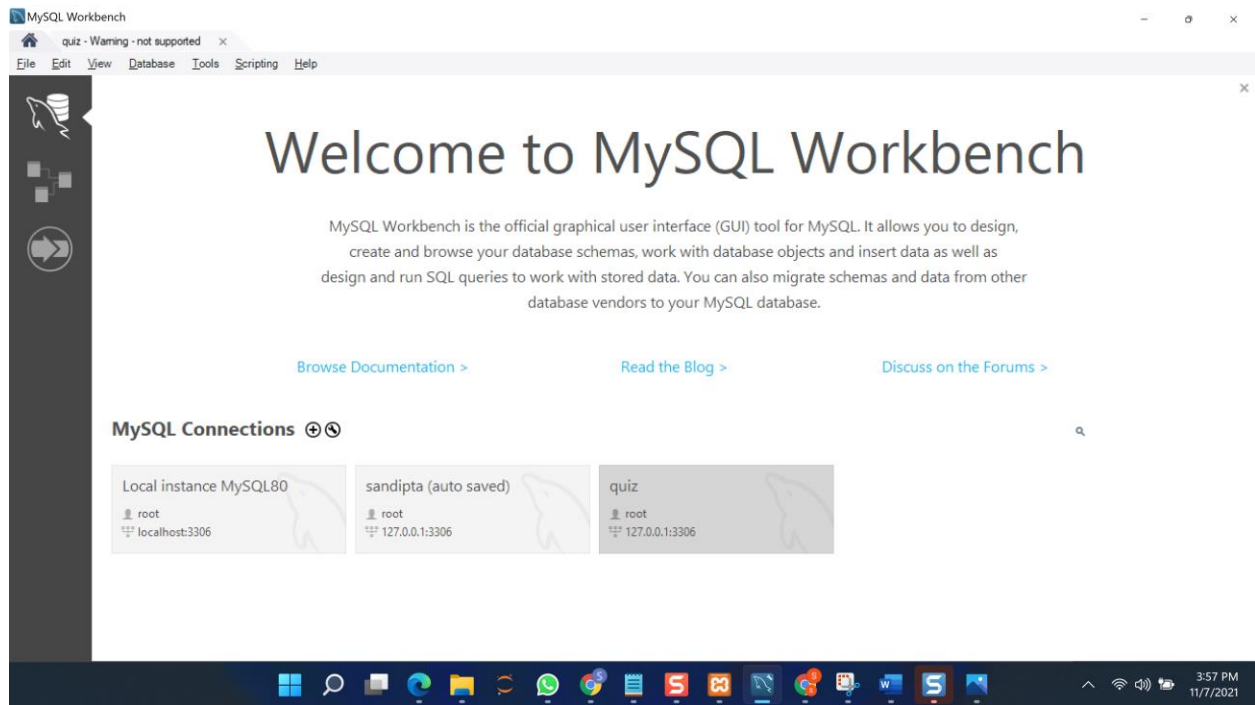
Console

11:40 PM 11/7/2021

FIG 8: OUTPUT FOR QUESTION 3



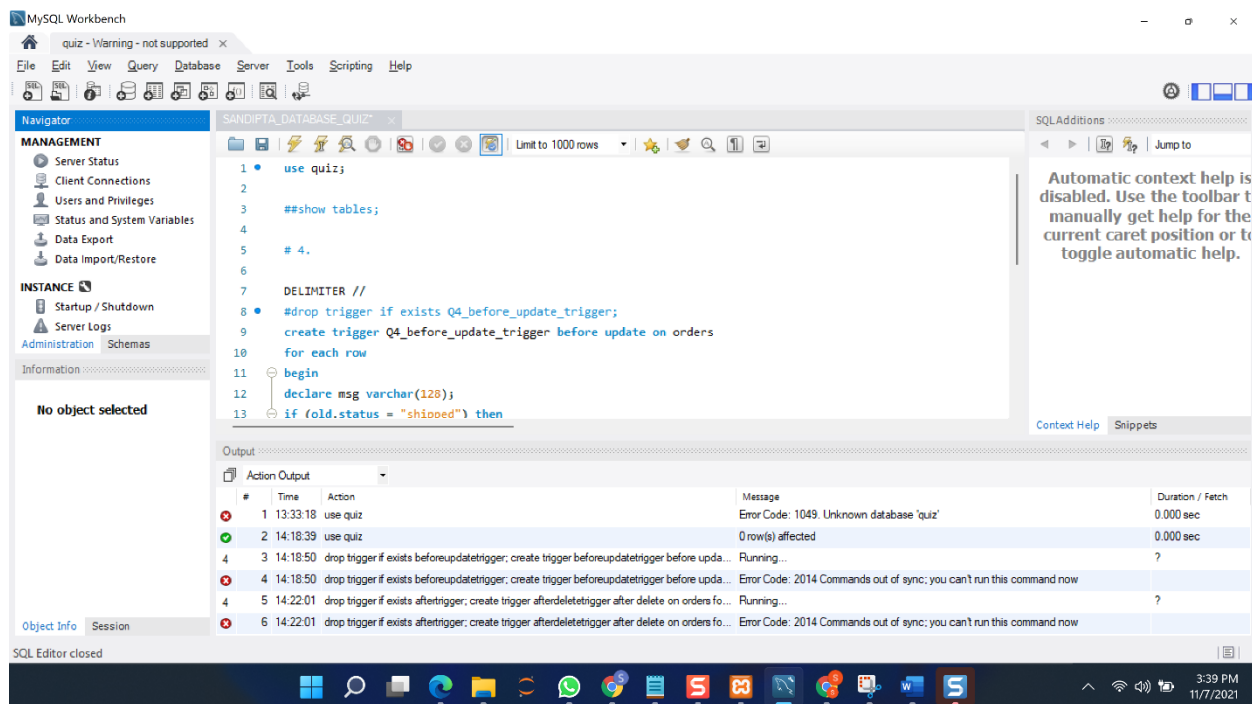
**Answer the Questions 4 and 5 Below by using MYSQL Workbench Connected to PHPMYADMIN**



**FIG 9: ESTABLISHING CONNECTION BETWEEN THE MySQL AND PHPMYADMIN**

**Question 4: After hearing about the beautiful free giftwrap from her friend, Linda Williams also wants her order to be wrapped as a gift. However, Linda's order has already been shipped. Attach a before update trigger to the order table to prevent a customer making gift wrapping change server request on an already shipped order. Display the following error message to a customer: "The order is already on its way!" (20 points)**

**Answer:**



**FIG 10(A): Q4\_before\_update\_trigger**

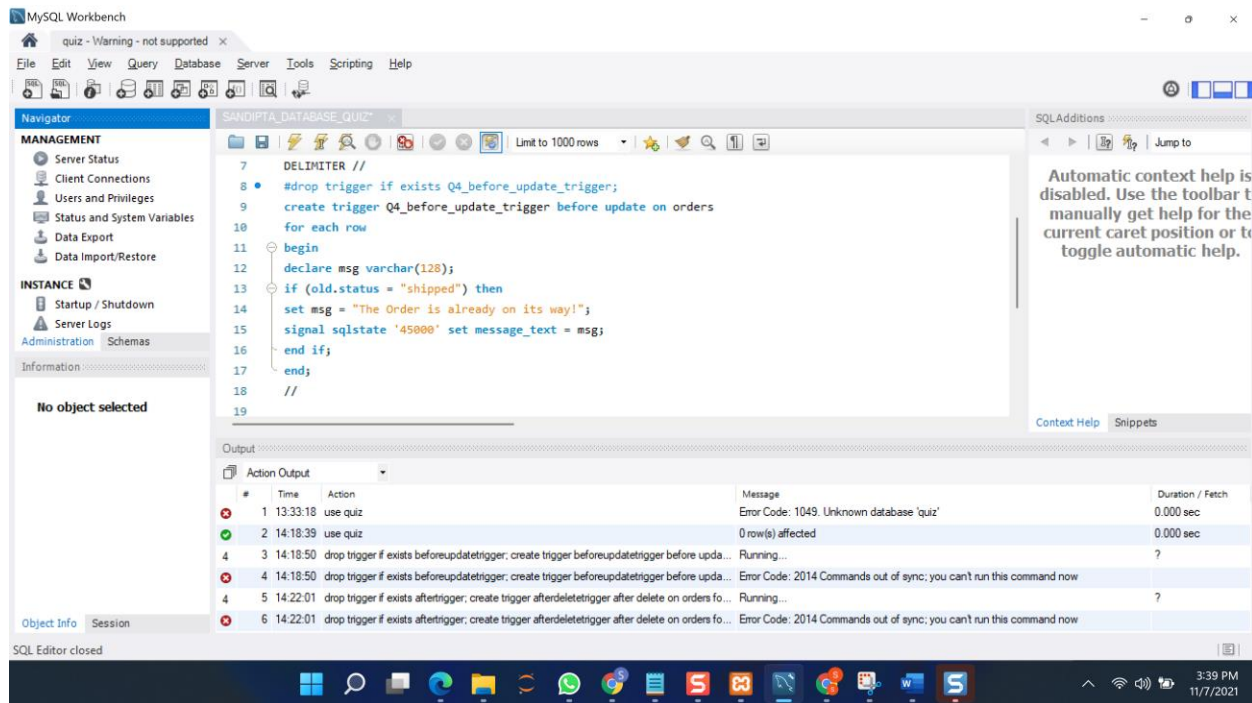


FIG 10(B)

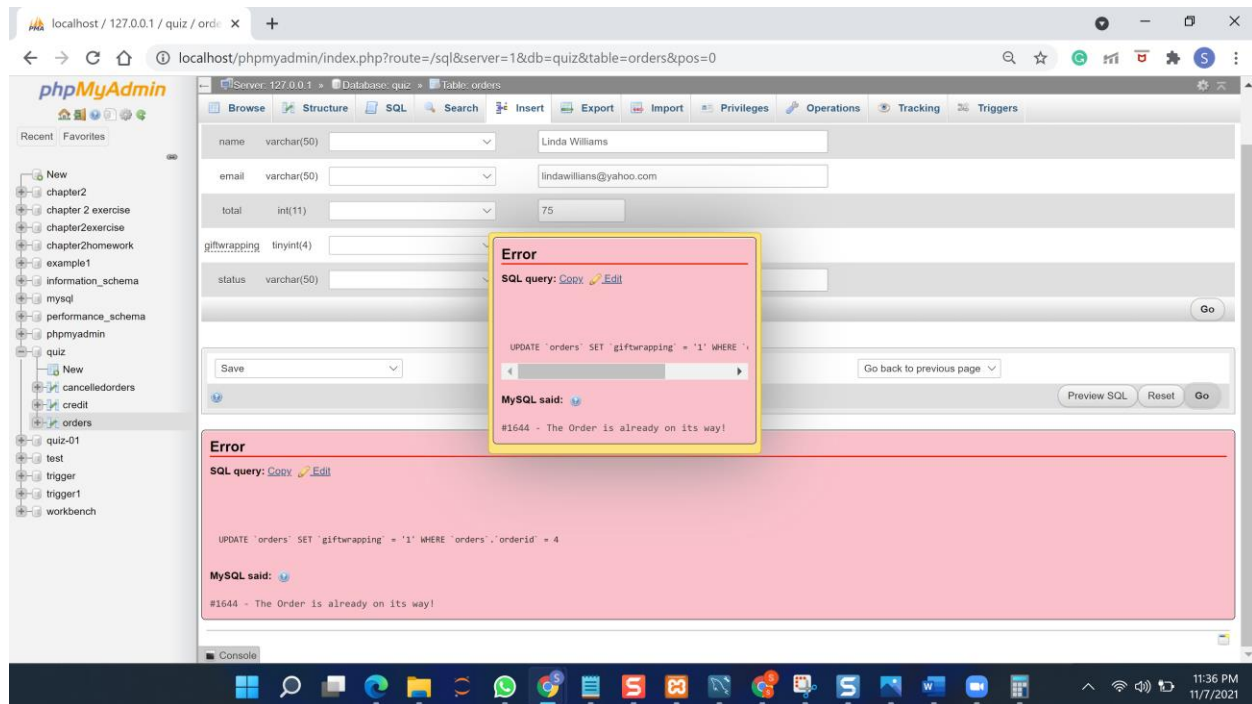
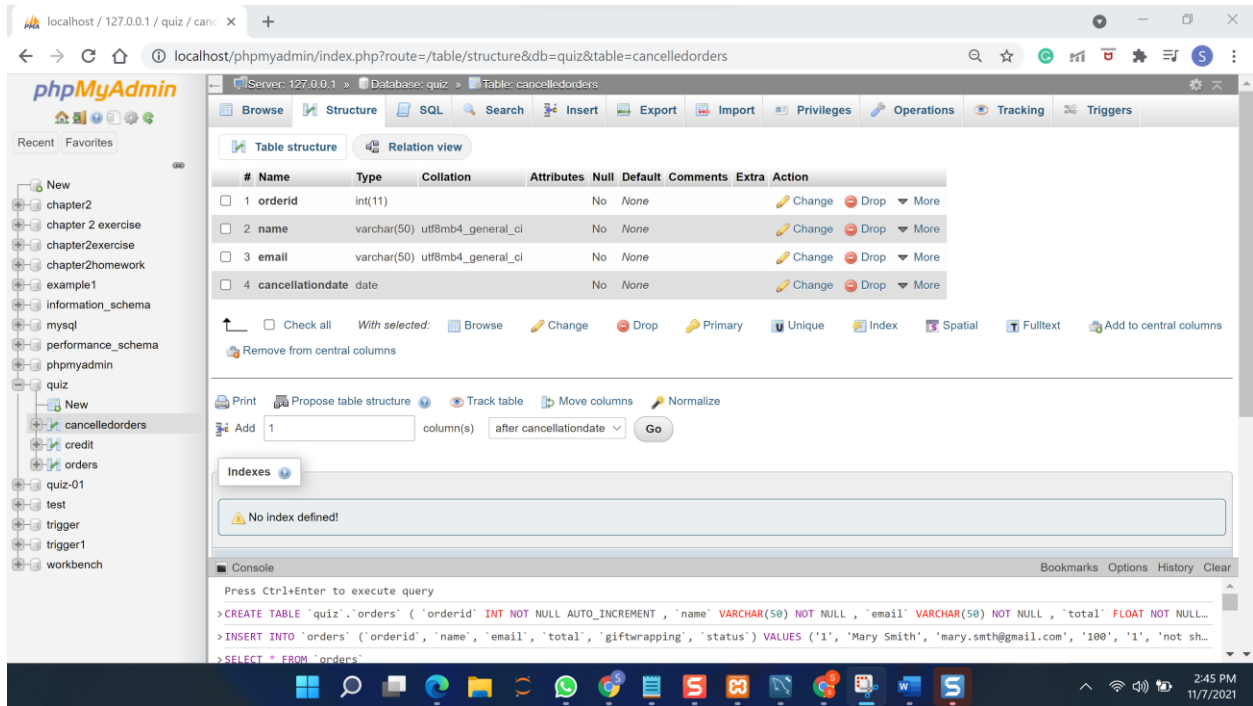


FIG 11: OUTPUT OF QUESTION 4

**Question 5: The company would like to record all cancelled orders in the cancelledorder table shown below. Create the table below.**



**FIG 12: CANCELLATIONORDER**

**Barbara Jones decided to cancel her order. Attach an after delete trigger on the orders table to automatically record all orders deleted by customers in the cancelledorder table. (20 points)**

**Answer:**

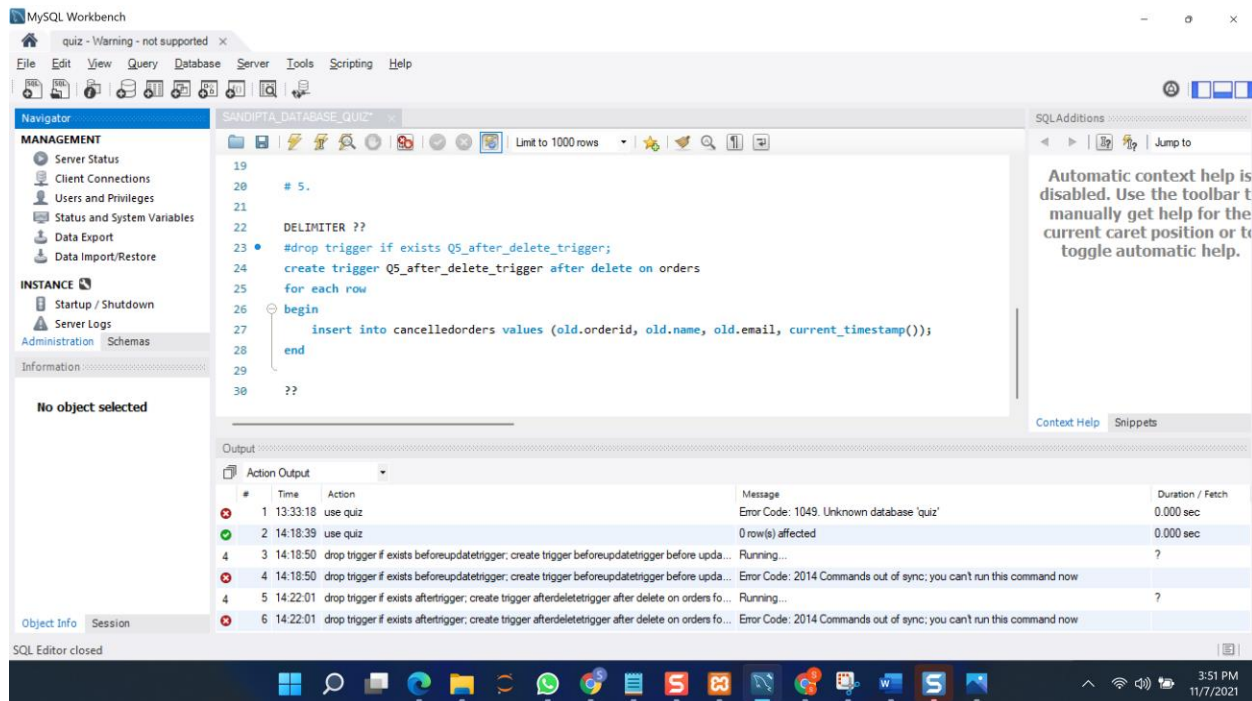


FIG 13: Q5\_after\_delete\_trigger

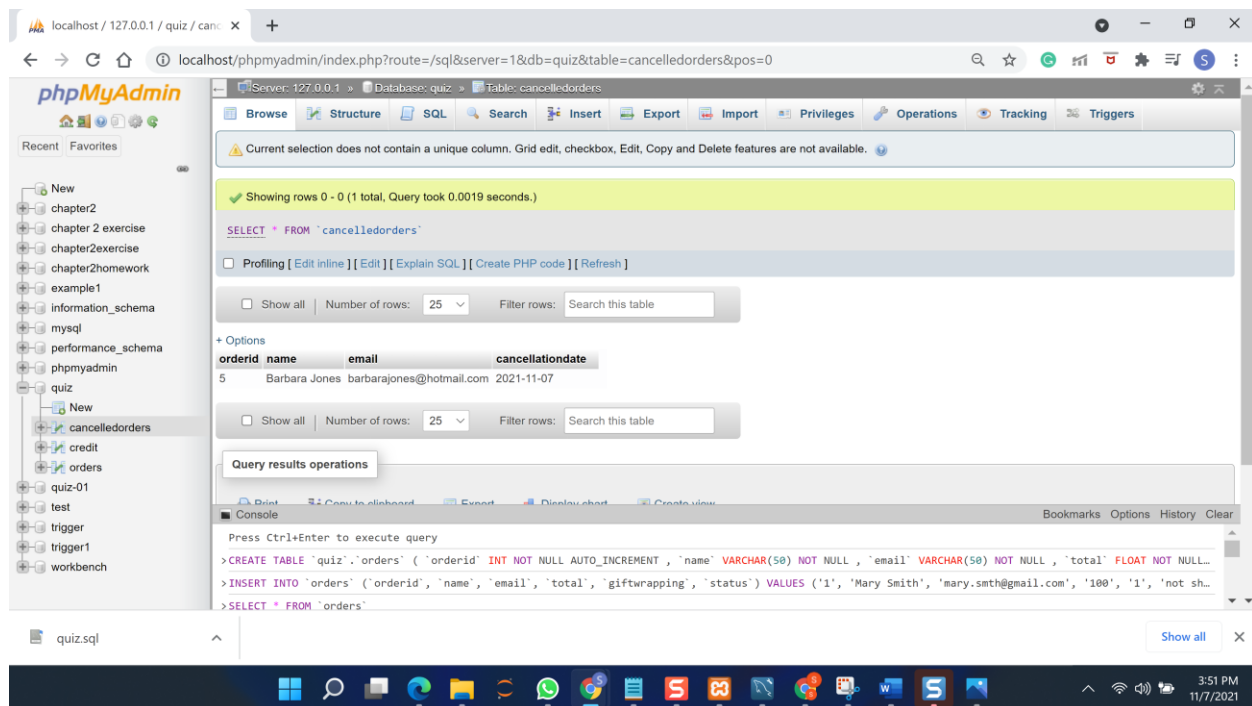


FIG 14: OUTPUT OF QUESTION 5

**Question 6: Create a five minute long screen capture video (Youtube videos are not accepted!) that demonstrates and explains how you built your triggers and how they work. Explain what problems you faced and how you resolved them. (20 points).**

**Answer:** Screen Capture Video is done and also attached the screenshot of every question query and expected output in this file.

Also, I have attached the PHPMYADMIN (Named as quiz) and MySQL QUERY file (Named as SANDIPTA\_DATABASE\_QUIZ) in Folder.