DBMS LAB
Week-9

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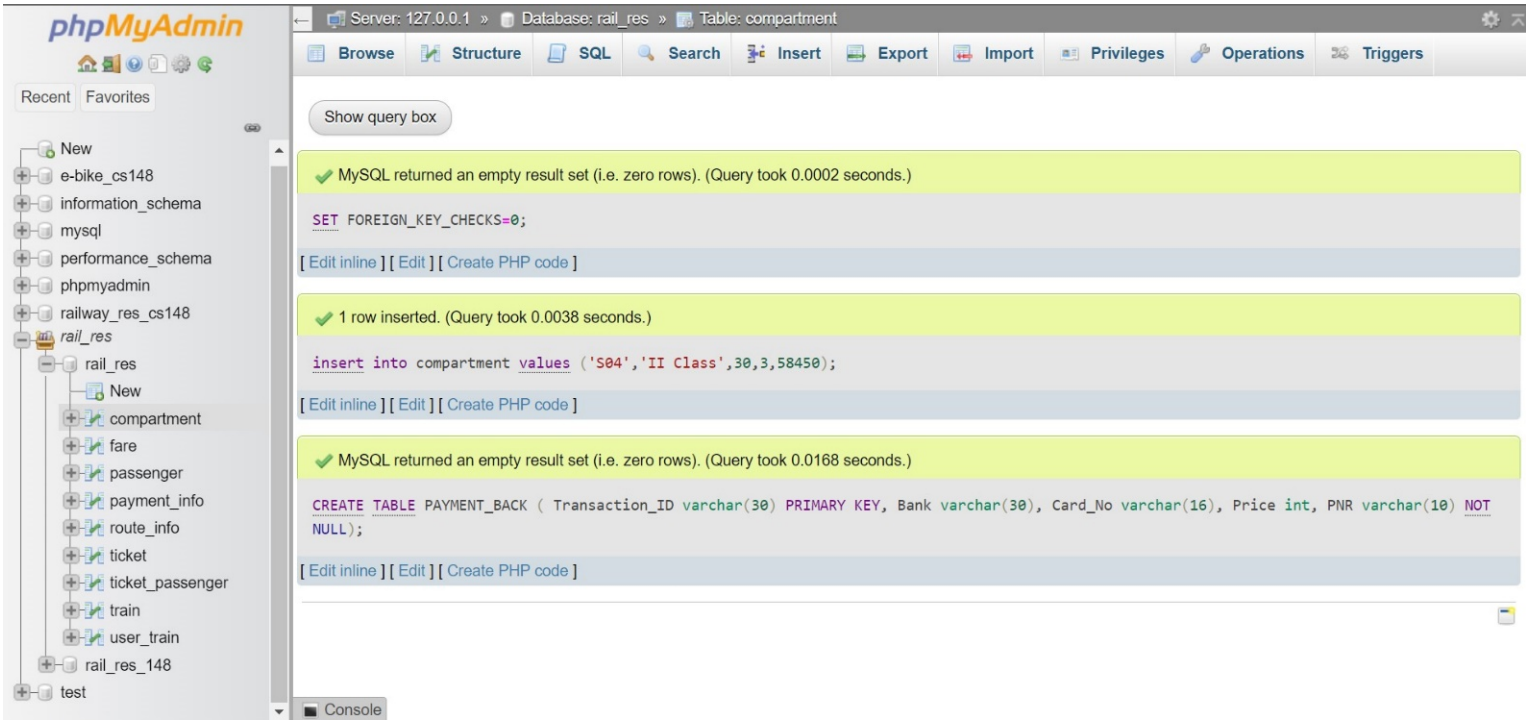
Section: C
Date: 18/11/2022

1. Write a trigger on insert to the ‘compartment’ table when a new compartment gets added to a train and make sure that total number of compartments available in the train does not exceed 4

Code for the trigger:

```
SET FOREIGN_KEY_CHECKS=0;

DELIMITER $$
CREATE TRIGGER compartment_check
BEFORE INSERT
ON compartment FOR EACH ROW
BEGIN
    DECLARE error_msg VARCHAR(255);
    declare count int;
    SET error_msg = ('Cannot have more than four compartment');
    IF (select count(*) from compartment where Train_No = new.Train_No) > 4 THEN
    SIGNAL SQLSTATE '45000'
    SET MESSAGE_TEXT = error_msg;
    END IF;
END $$
DELIMITER ;
```

Output:



Error

SQL query: Copy

```
insert into compartment values ('F02','II Class',60,40,58450);
```

MySQL said:

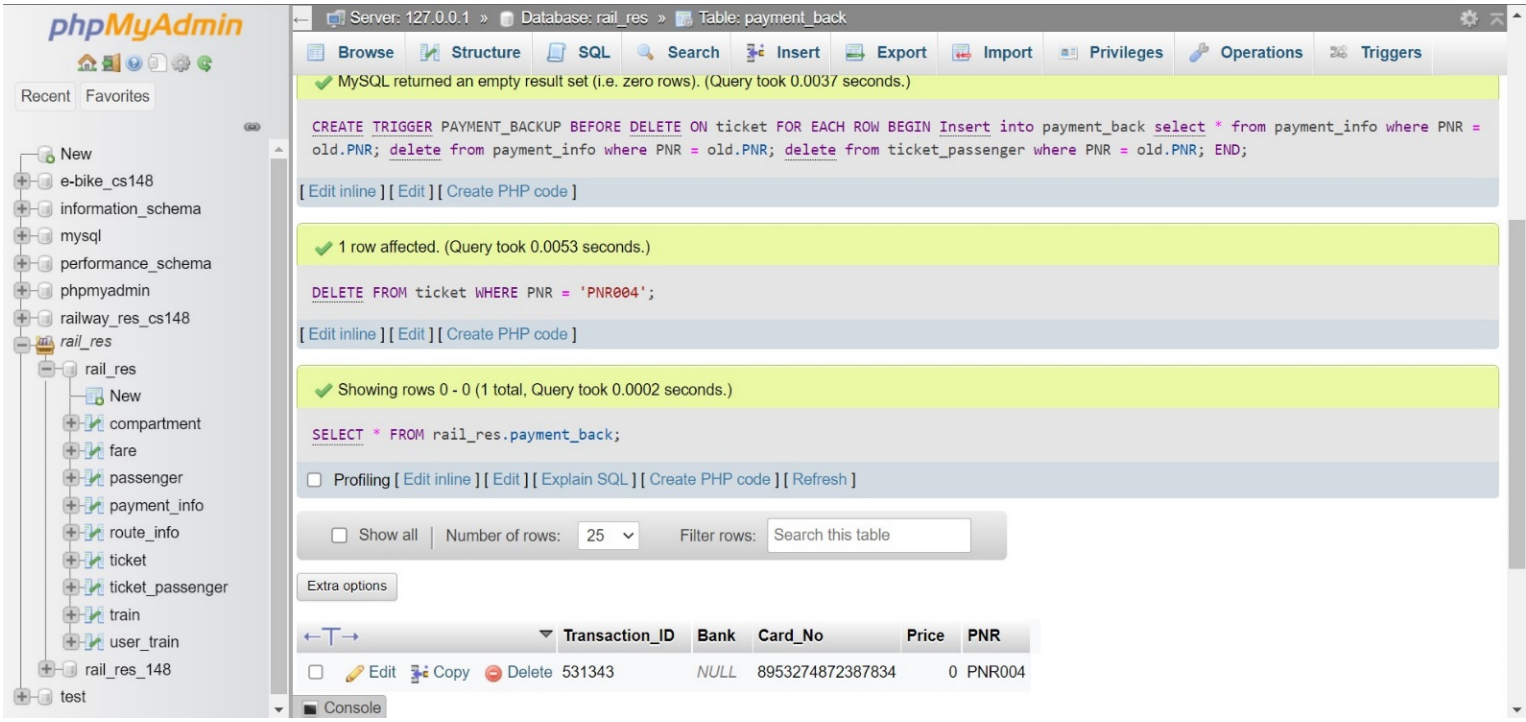
```
#1644 - Cannot have more than four compartment
```

2. Create a trigger to add payment information to the backup table when we try to delete information from the ‘ticket’ table.

Code for the trigger:

```
CREATE TABLE PAYMENT_BACK ( Transaction_ID varchar(30) PRIMARY KEY,
                            Bank varchar(30),
                            Card_No varchar(16),
                            Price int,
                            PNR varchar(10) NOT NULL);


DELIMITER $$

CREATE TRIGGER PAYMENT_BACKUP
BEFORE DELETE
ON ticket FOR EACH ROW
BEGIN
    Insert into payment_back select * from payment_info where PNR = old.PNR;
    delete from payment_info where PNR = old.PNR;
    delete from ticket_passenger where PNR = old.PNR;
END $$
DELIMITER ;

DELETE FROM ticket WHERE PNR = 'PNR004';

SELECT * FROM rail_res.payment_back;
```

Output:


phpMyAdmin
Recent
Favorites
New
e-bike_cs148
information_schema
mysql
performance_schema
phpmyadmin
railway_res_cs148
rail_res
rail_res
New
compartment
fare
passenger
payment_info
route_info
ticket
ticket_passenger
train
user_train
rail_res_148
test
Server: 127.0.0.1 » Database: rail_res » Table: payment_back
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0037 seconds.)
CREATE TRIGGER PAYMENT_BACKUP BEFORE DELETE ON ticket FOR EACH ROW BEGIN Insert into payment_back select * from payment_info where PNR = old.PNR; delete from payment_info where PNR = old.PNR; delete from ticket_passenger where PNR = old.PNR; END;
[Edit inline] [Edit] [Create PHP code]
1 row affected. (Query took 0.0053 seconds.)
DELETE FROM ticket WHERE PNR = 'PNR004';
[Edit inline] [Edit] [Create PHP code]
Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)
SELECT * FROM rail_res.payment_back;
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all
Number of rows: 25
Filter rows: Search this table
Extra options
Transaction_ID
Bank
Card_No
Price
PNR
Edit
Copy
Delete
531343
NULL
8953274872387834
0
PNR004
Console