Project Flexxter

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Overview

This is a sample task that needs to be submitted to Flexxter Company.

Goals

1. Task 1: Extend the given SQL database by any useful properties or tables to map the scenario. Present the adjustments to the database as SQL statements.
2. Assuming the classes "Employee" and "Machine" already exist in the PHP backend, with the following properties. Add a function to the Machine class that assigns the machine (resource) to an employee and thus describes the „process of checking out a resource“. Also add a function to the Machine class that represents the feature of returning the machine to the warehouse.
3. Write a function that returns all resources as objects of type Machine that are currently checked out by the employee named 'Sandy'.

Necessary Steps taken to complete the tasks

In order to test the functions names are “checkout(Employee $employee)” & “back_to_warehouse()” with my custom Database file which i made with my thought, i had to make certain changes to the classes and the function's parameters.

I have made a php class named machineController and consider other two classes Machine & Employee as a Model class. Because i thought it was becoming messy and unethical to put the task2’s two functions whom are “checkout(Employee $employee)” & “back_to_warehouse()” in a Machine Model class and check the functions output with database’s query. That is why I added a Machine class as an instance to the function’s parameter “checkout(Employer $employee, Machine $machine)” to perform. Here, I took both EmployeeID and MachineID to search for employees who need to be assigned with a

machine, using “mysql raw query” and update the database according to task’s requirement.

I made a machineController which has a custom function named “getCheckedOutMachinesByEmployees” which gives an object type machine which was a requirement of Task 3.

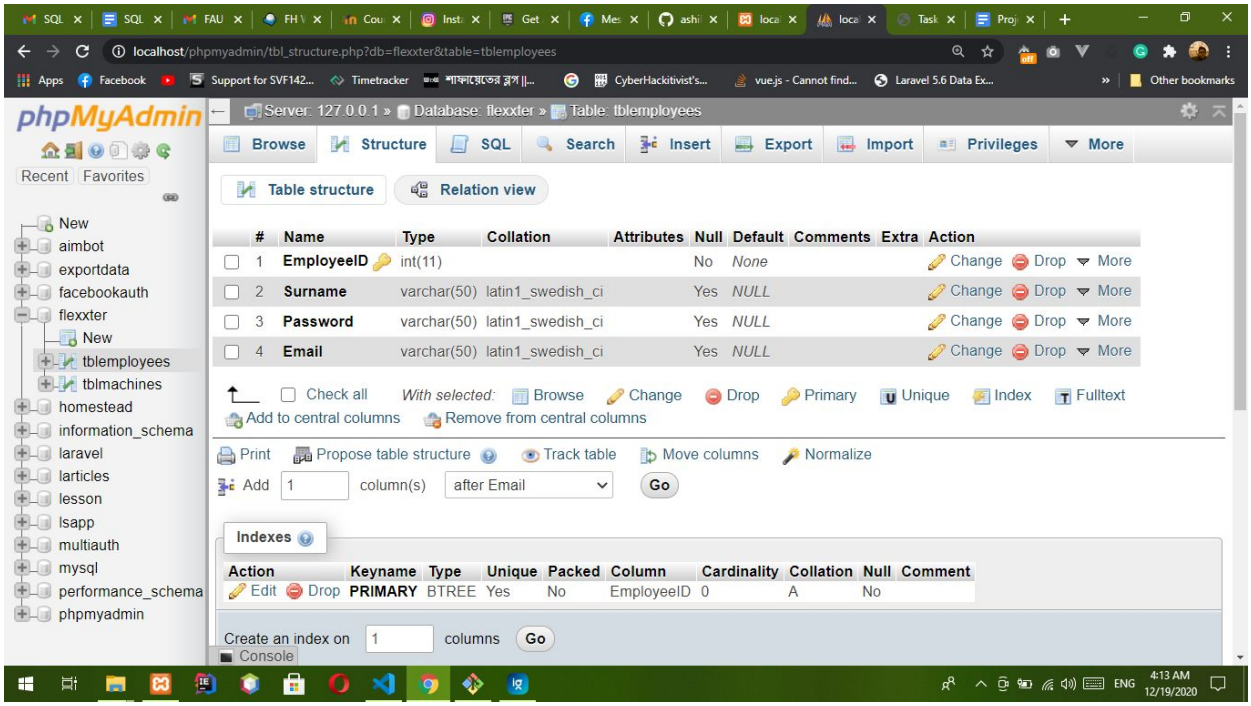
N.B.

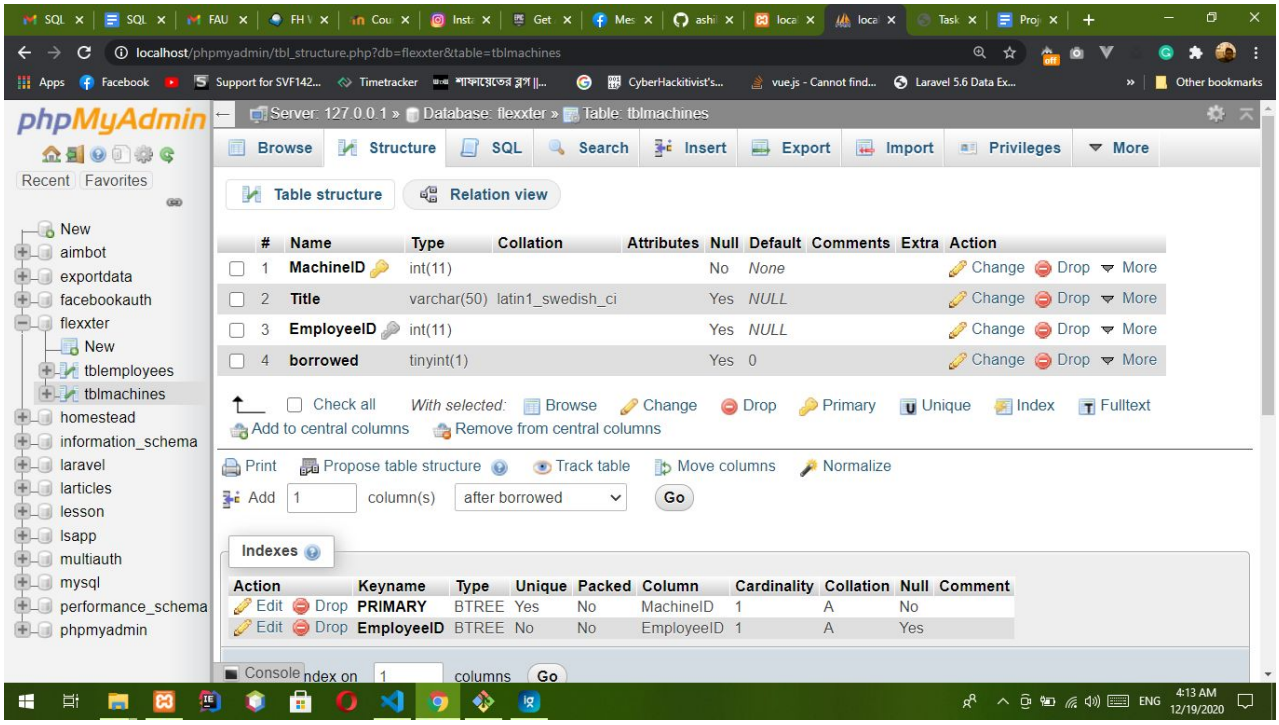
Please see the outputs of screenshots to have a clear understanding of why I have considered solving my tasks in this approach.

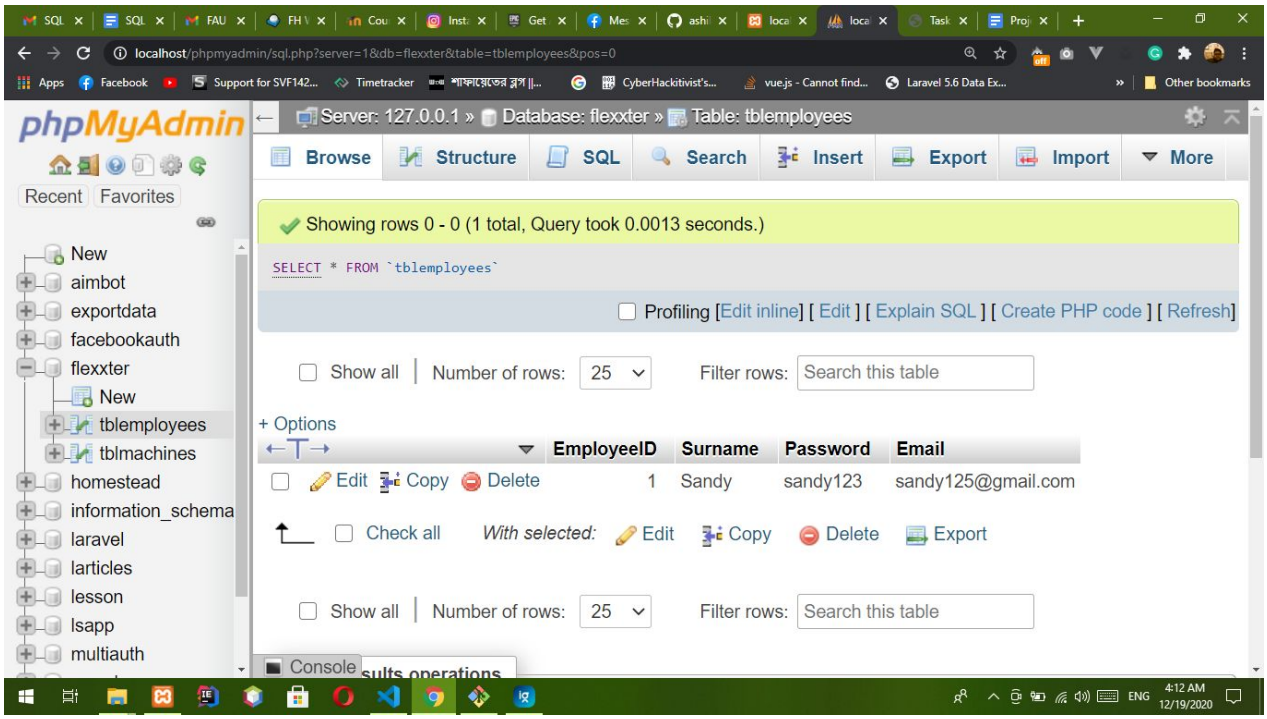
Output or Results with Custom Database

I. Task 1

Structures of database Table of Machine and Employees name “tblmachines” and “tblemployees”. Added employeeID as a foreign key in “tblmachines“ & added “borrowed” as TINYINT type field to determine whether employee was assigned with a machine, if so then “borrowed” field will changed into “1” which considered as “TRUE”, Otherwise, set an default value to “0” as which considered as “FALSE”.

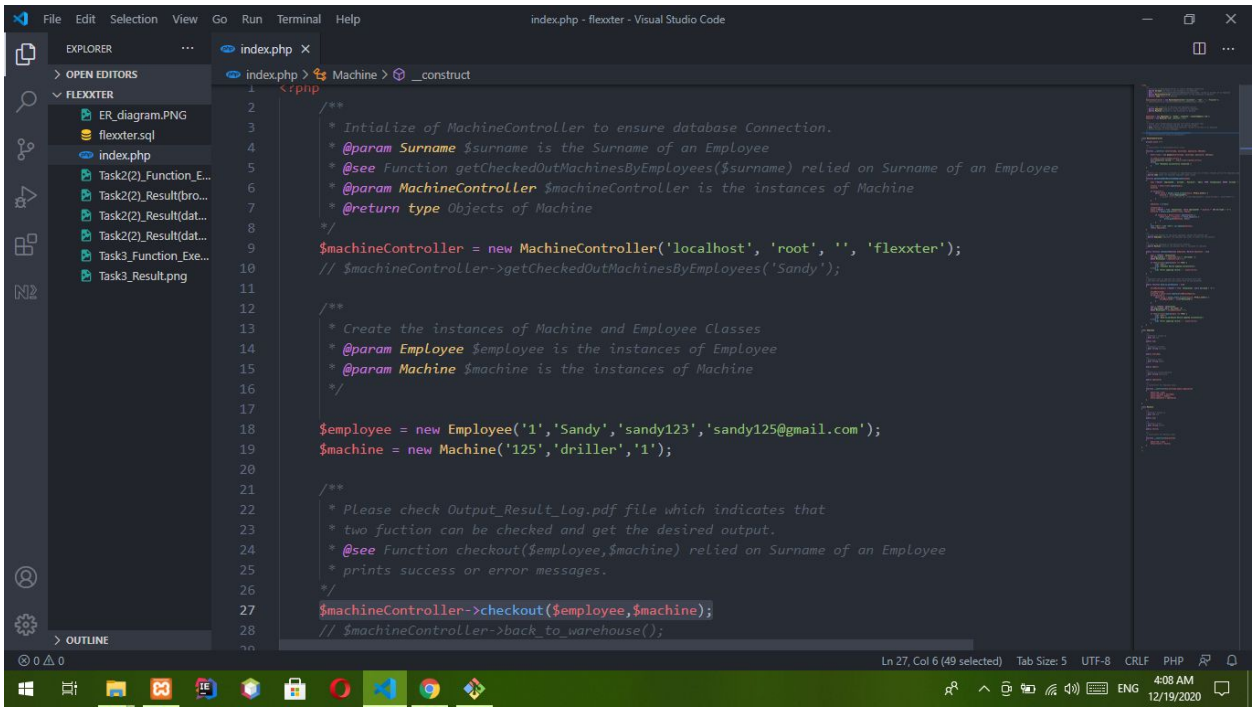


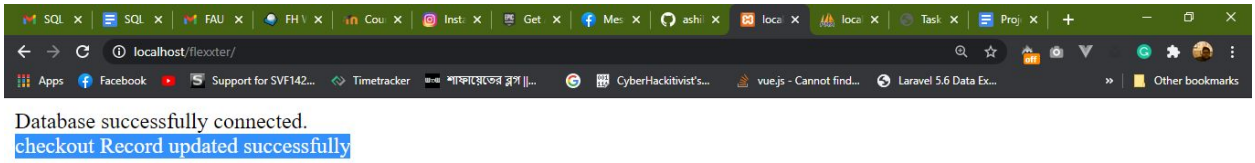

localhost/phpmyadmin/tbl_structure.php?db=flexxter&table=tblmachines
phpMyAdmin
Server: 127.0.0.1 » Database: flexxter » Table: tblmachines
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
More
Table structure
Relation view
Name Type Collation Attributes Null Default Comments Extra Action
1 MachineID int(11) No None Change Drop More
2 Title varchar(50) latin1_swedish_ci Yes NULL Change Drop More
3 EmployeeID int(11) Yes NULL Change Drop More
4 borrowed tinyint(1) Yes 0 Change Drop More
Check all With selected: Browse Change Drop Primary Unique Index Fulltext
Add to central columns Remove from central columns
Print Propose table structure Track table Move columns Normalize
Add 1 column(s) after borrowed Go
Indexes
Action Keyname Type Unique Packed Column Cardinality Collation Null Comment
Edit Drop PRIMARY BTREE Yes No MachineID 1 A No
Edit Drop EmployeeID BTREE No No EmployeeID 1 A Yes
New
aimbot
exportdata
facebookauth
flexxter
New
tblemployees
tblmachines
homestead
information_schema
laravel
larticles
lesson
lsapp
multiauth
mysql
performance_schema
phpmyadmin


localhost/phpmyadmin/sql.php?server=1&db=flexxter&table=tblemployees&pos=0
phpMyAdmin
Server: 127.0.0.1 » Database: flexxter » Table: tblemployees
Browse
Structure
SQL
Search
Insert
Export
Import
More
Showing rows 0 - 0 (1 total, Query took 0.0013 seconds.)
SELECT * FROM `tblemployees`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all Number of rows: 25 Filter rows: Search this table
+ Options
EmployeeID Surname Password Email
Edit Copy Delete 1 Sandy sandy123 sandy125@gmail.com
Check all With selected: Edit Copy Delete Export
Show all Number of rows: 25 Filter rows: Search this table
New
aimbot
exportdata
facebookauth
flexxter
New
tblemployees
tblmachines
homestead
information_schema
laravel
larticles
lesson
lsapp
multiauth

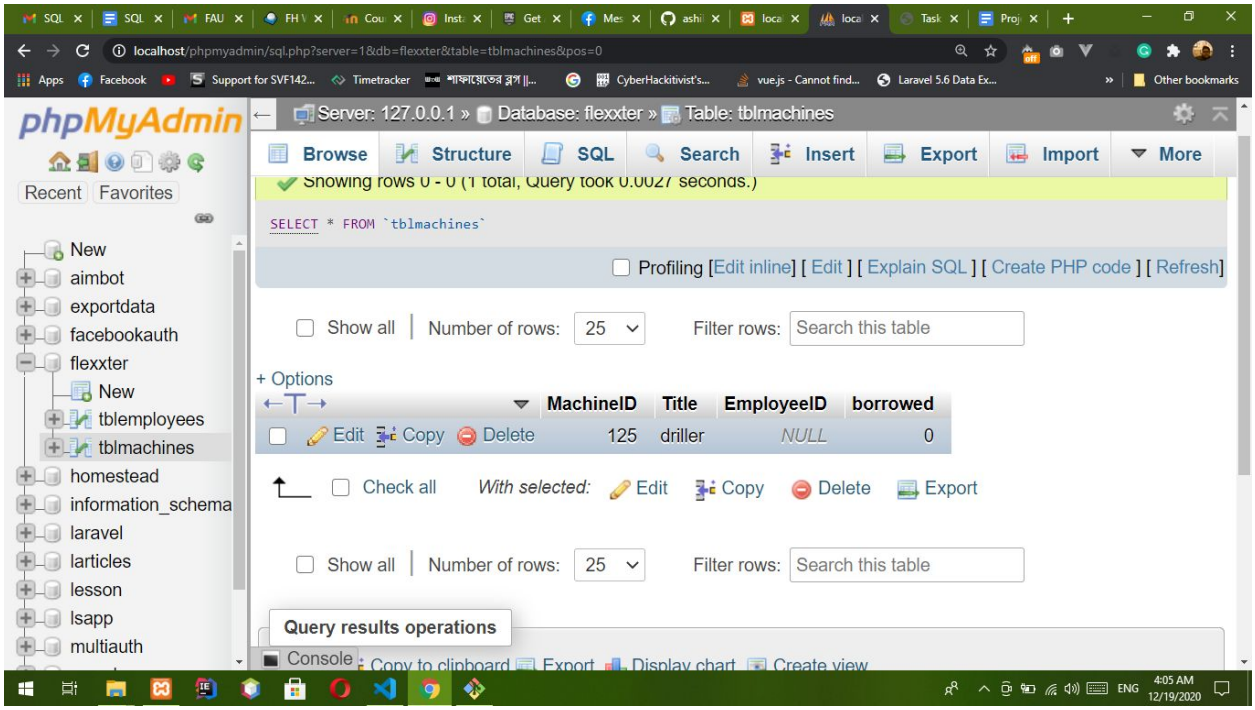
II. Task 2 and Task 3

Below output example of the function "checkout(Employee, Machine)"

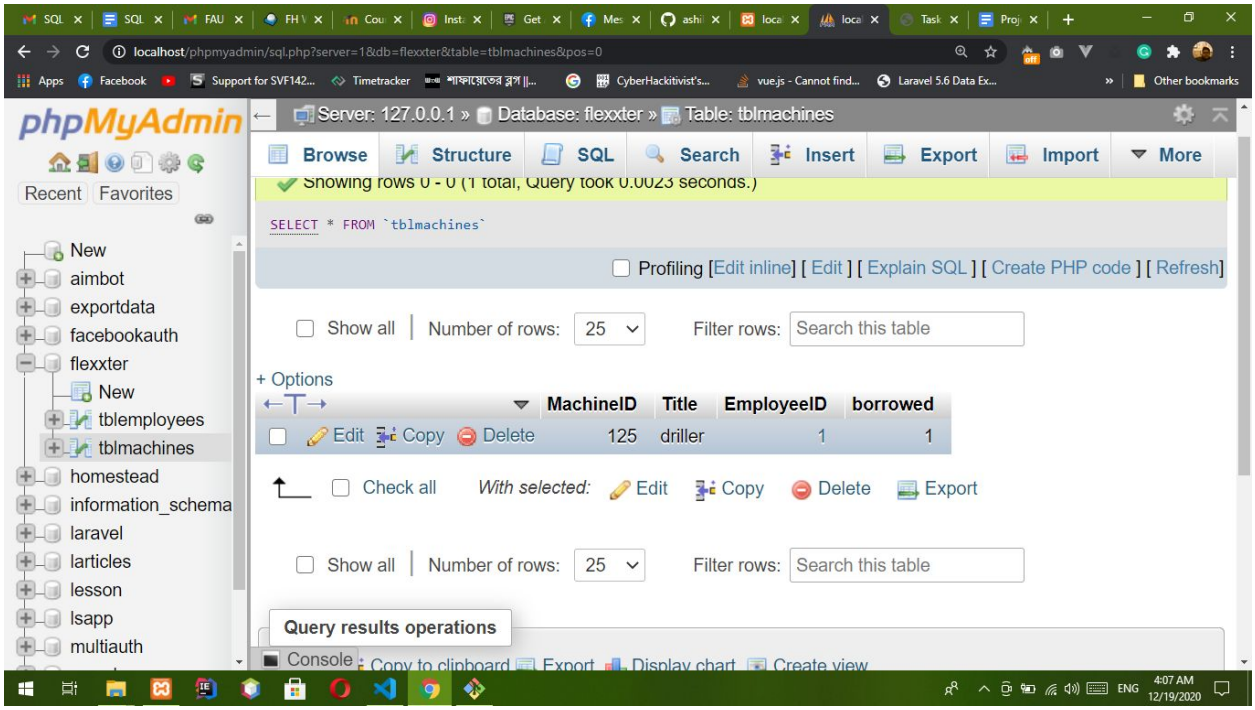




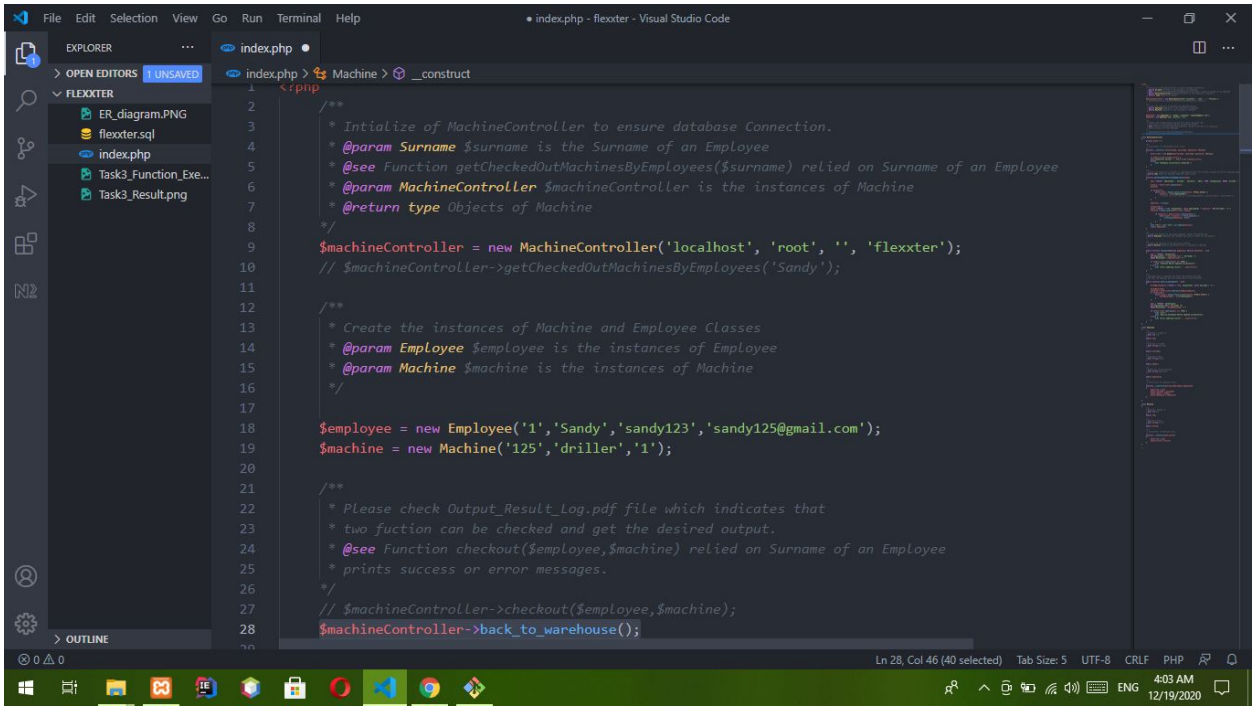
Before Executing the function “checkout(Employee, Machine)”

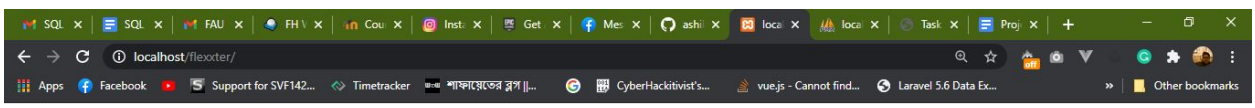


After Executing the function “checkout(Employee, Machine)”



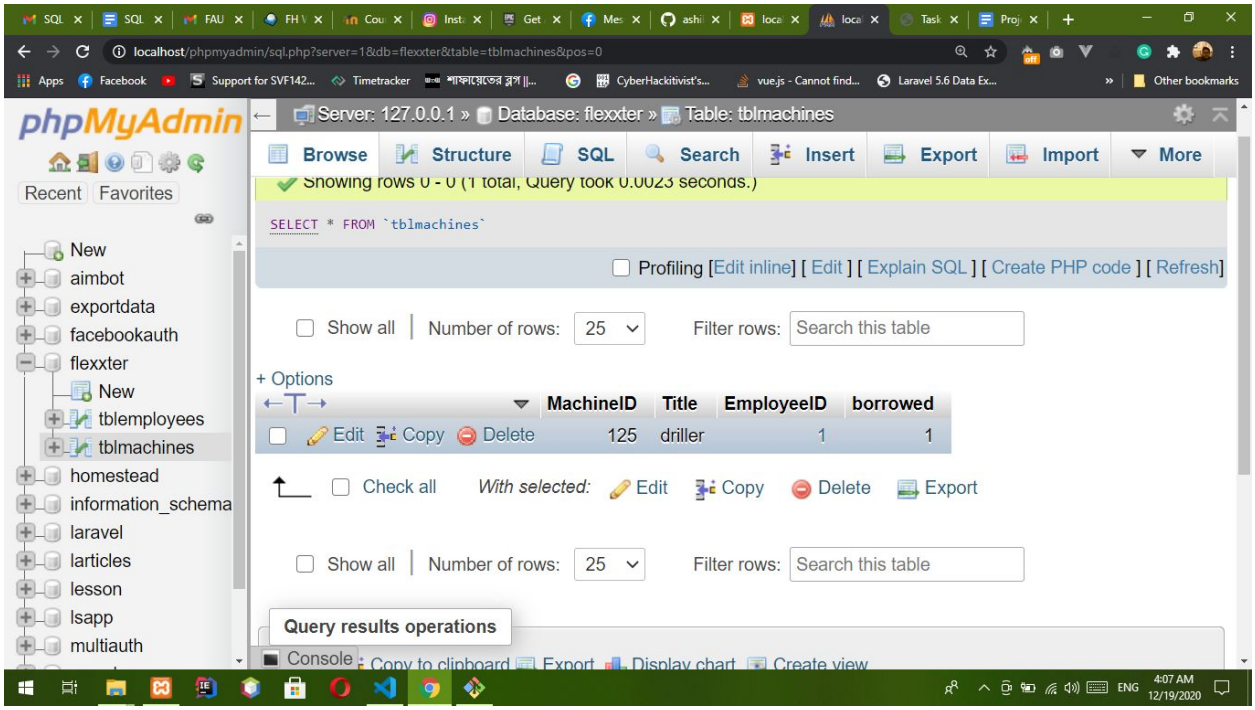
Below output example of the function “checkout(Employee, Machine)”



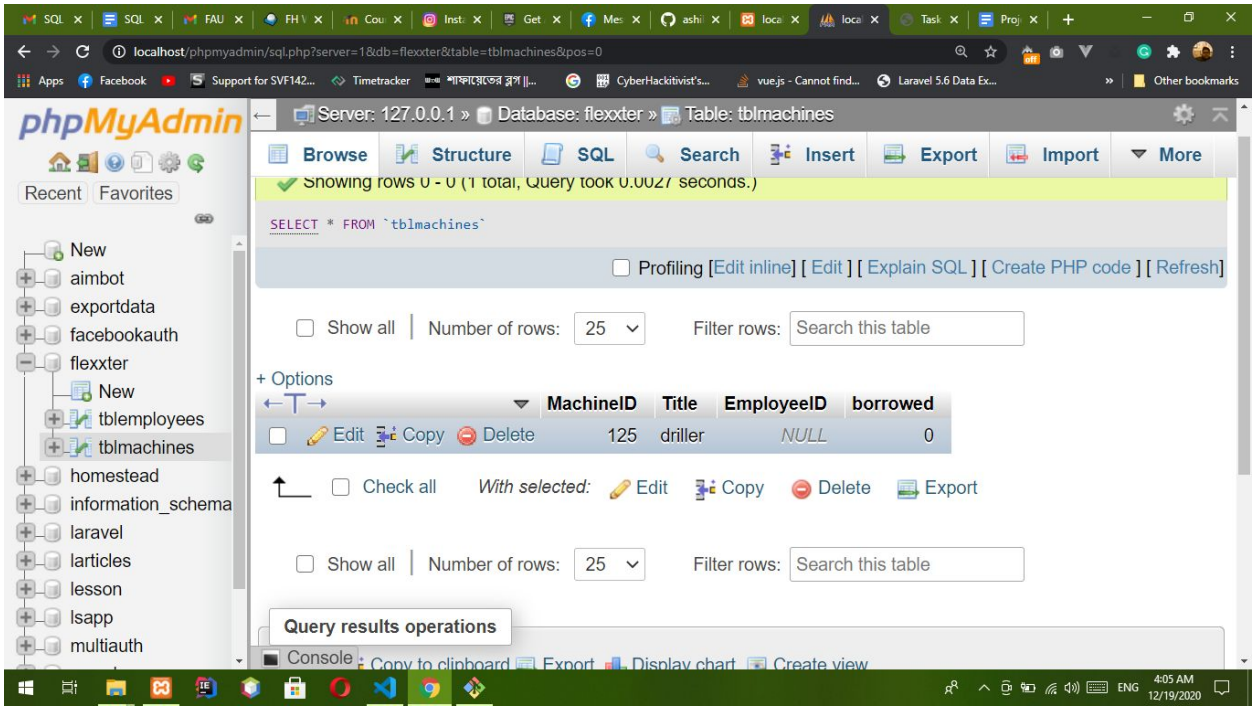


Database successfully connected.
back_to_warehouse Record updated successfully

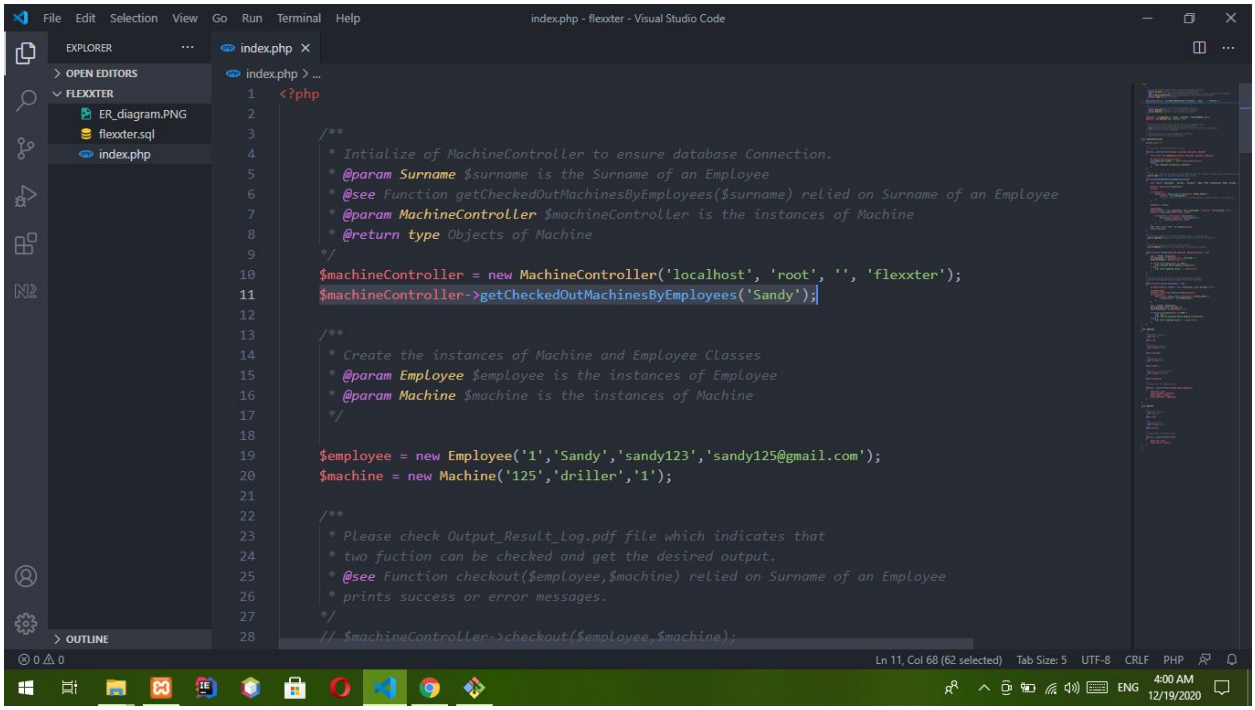
Before Executing the function “back_to_warehouse()”



After Executing the function “back_to_warehouse()”



Before Executing the function
"getCheckedOutMachinesByEmployees($employeeSurname)"



After Executing the function "getCheckedOutMachinesByEmployees($employeeSurname)"