

data base lab task 04

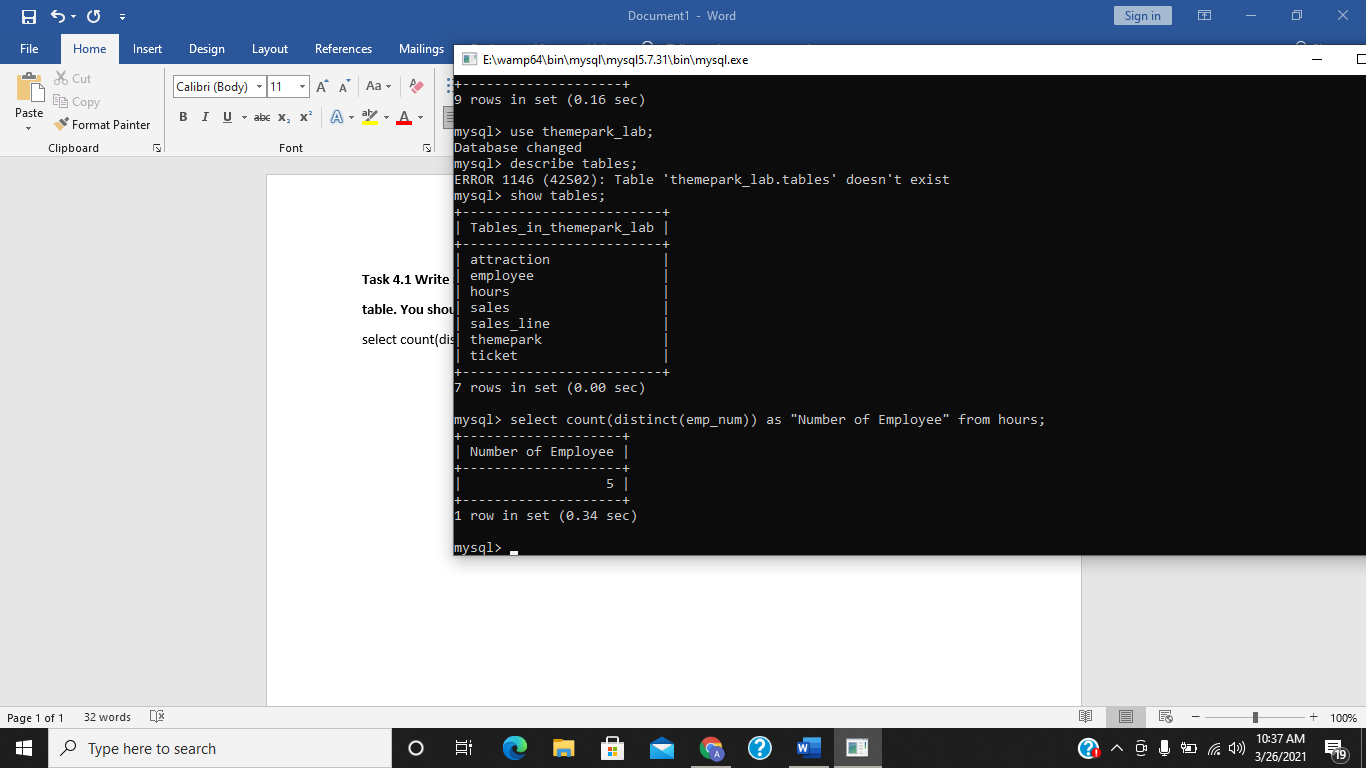
AITZAZ TAHIR CH 19P0012 SIR MUHAMMAD USMAN



**Task 4.1 Write a query that displays the number of distinct employees in the HOURS**

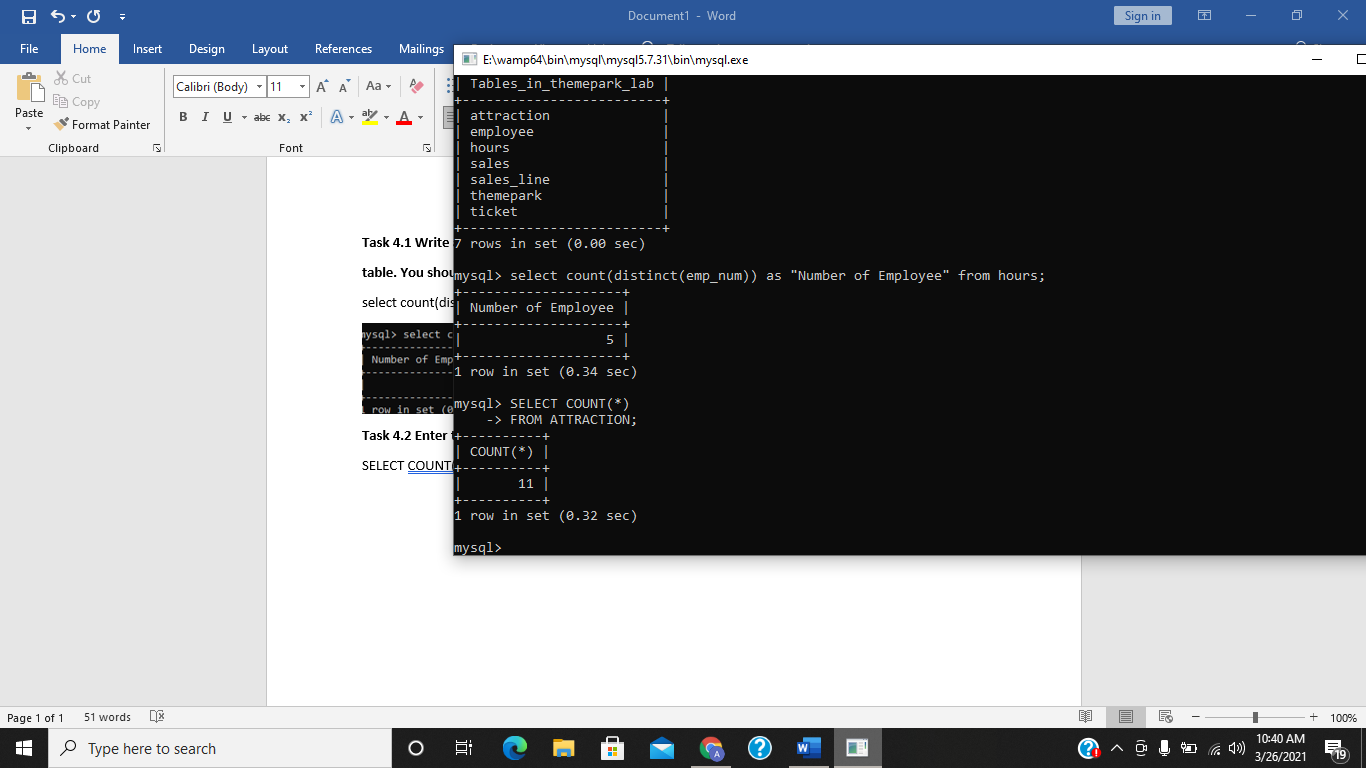
**table. You should label the column “Number of Employees”.**

select count(distinct(emp\_num)) as "Number of Employee" from hours;

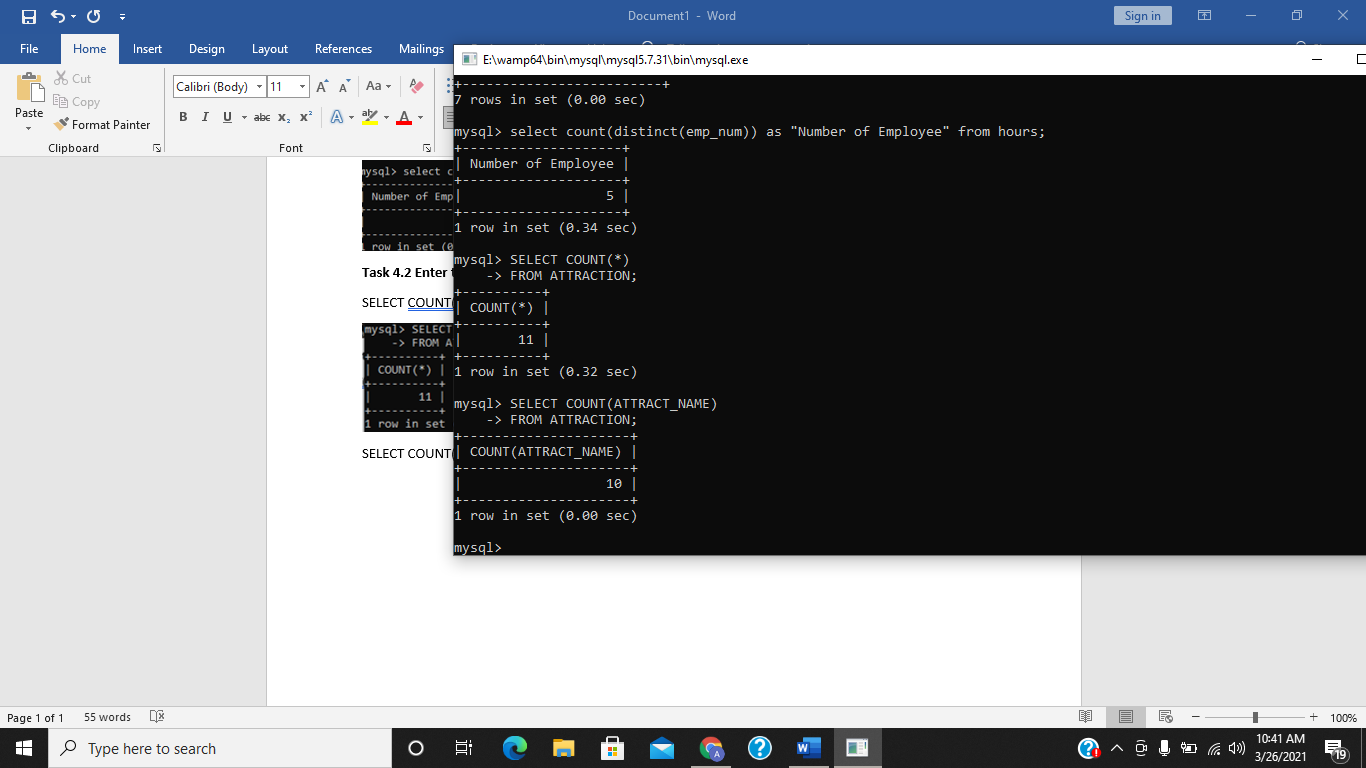


**Task 4.2 Enter the following two queries and examine their output shown in Figure 40.**

SELECT COUNT(\*) FROM ATTRACTION;



SELECT COUNT(ATTRACT\_NAME) FROM ATTRACTION;



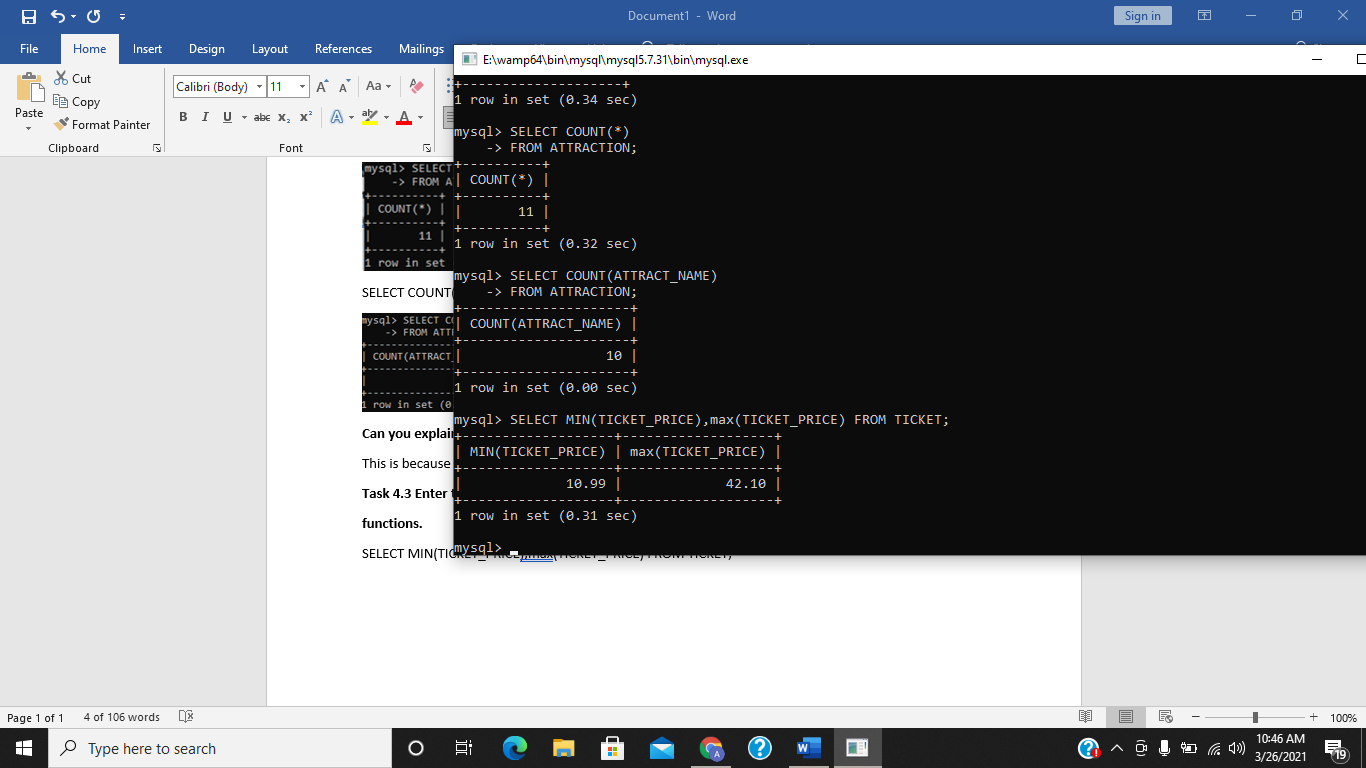
**Can you explain why the number of rows returned is different?**

This is because when we use **“ count ”** using **“ \* “** it also counts rows containing **NULL** value.

**Task 4.3 Enter the following query which illustrates the use of the MIN and Max**

**functions.**

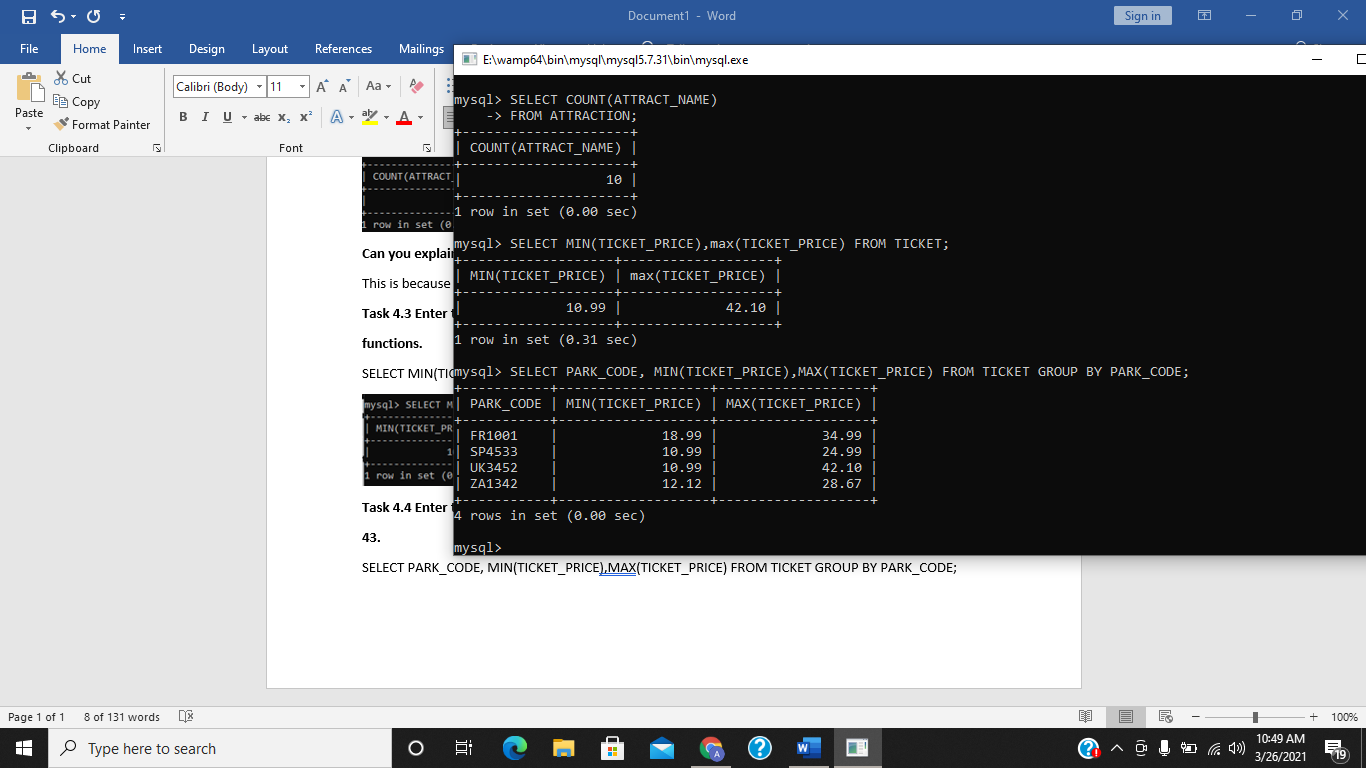
SELECT MIN(TICKET\_PRICE),max(TICKET\_PRICE) FROM TICKET;



**Task 4.4 Enter the query above and check the results against the output shown in Figure**

**43.**

SELECT PARK\_CODE, MIN(TICKET\_PRICE),MAX(TICKET\_PRICE) FROM TICKET GROUP BY PARK\_CODE;



**What happens if you miss out the GROUP BY clause?**

If we miss “ group by “ clause, it will display overall minimum and maximum ticket prices from (whole table **/** all park\_code) .

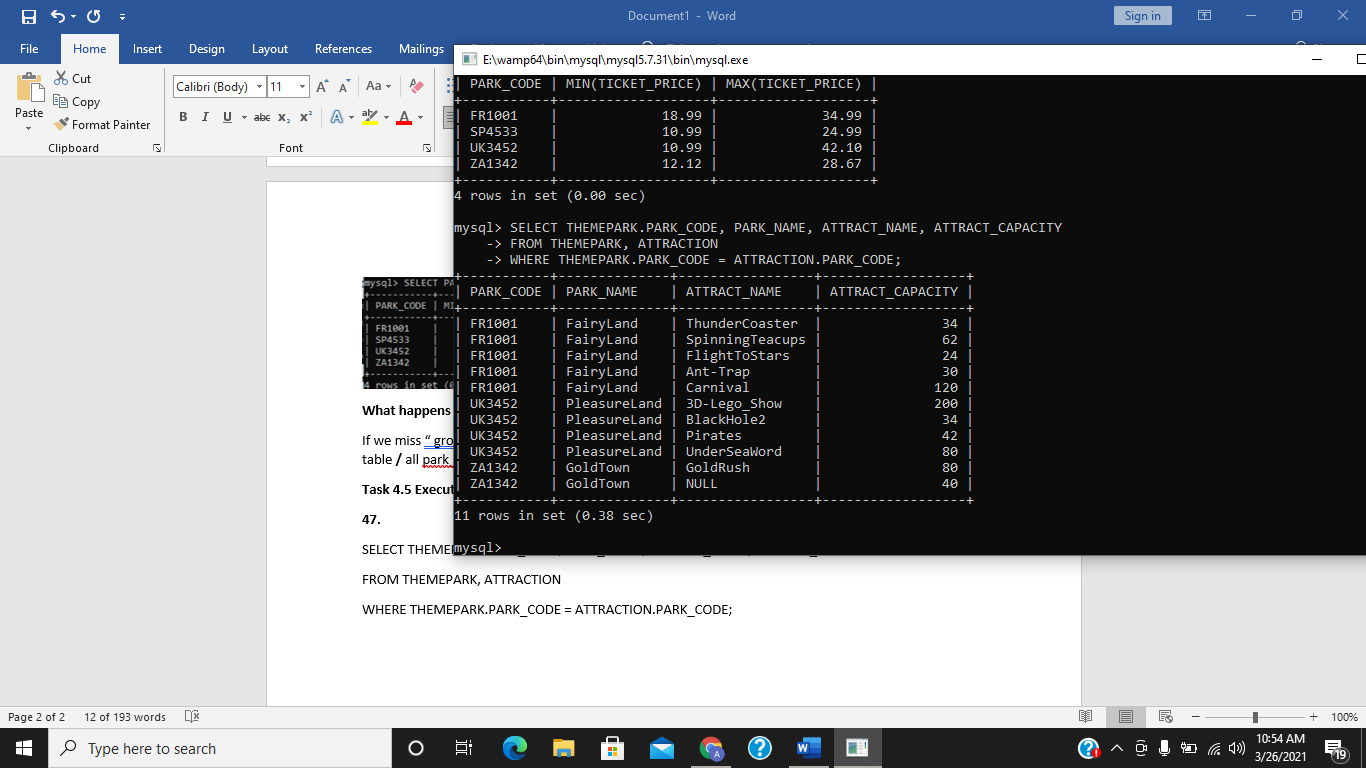
**Task 4.5 Execute the following query and check your results with those shown in Figure**

**47.**

SELECT THEMEPARK.PARK\_CODE, PARK\_NAME, ATTRACT\_NAME, ATTRACT\_CAPACITY

FROM THEMEPARK, ATTRACTION

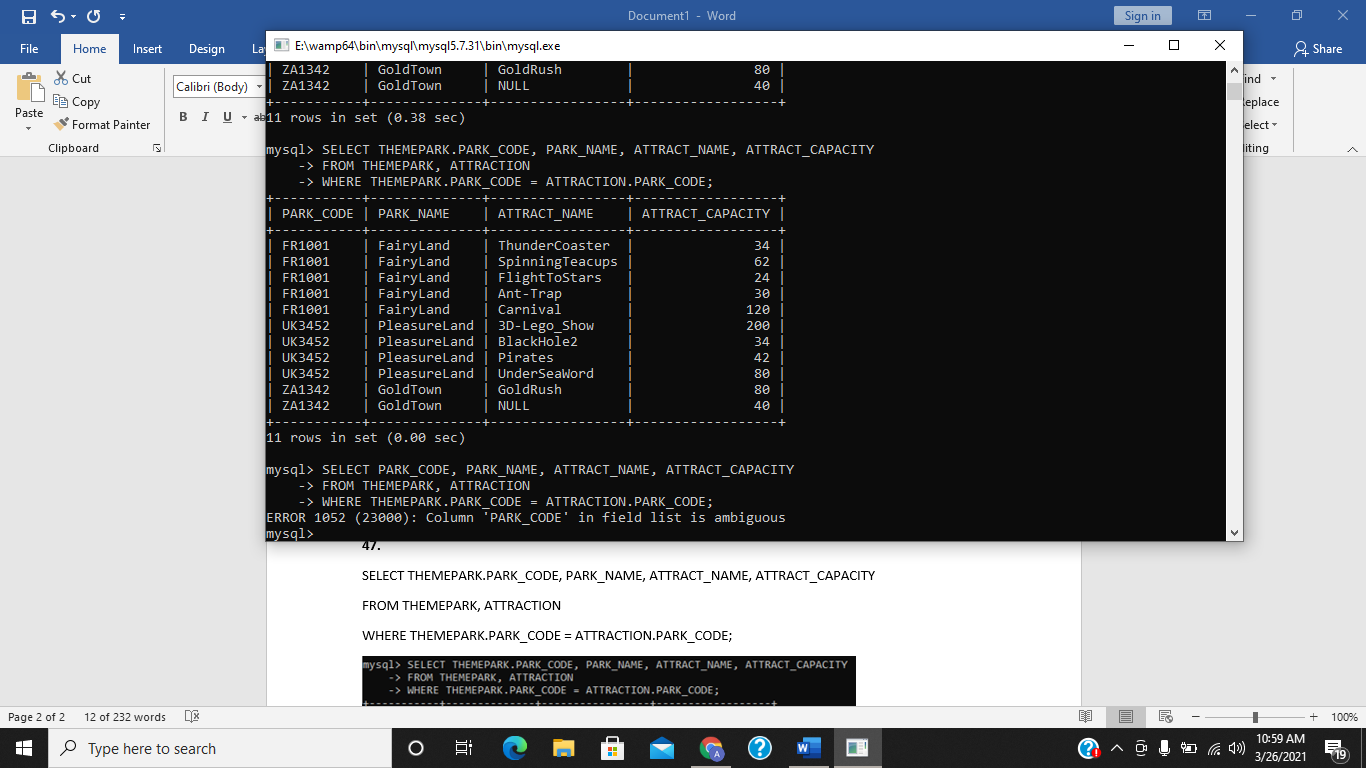
WHERE THEMEPARK.PARK\_CODE = ATTRACTION.PARK\_CODE;



**Then modify the SELECT statement and change THEMEPARK.PARK\_CODE to**

**just PARK\_CODE. What happens?**

It will give us error as u can see because we didn’t describe the table of coloumn (park\_code) because in both tables we have same coloumn(park\_code).

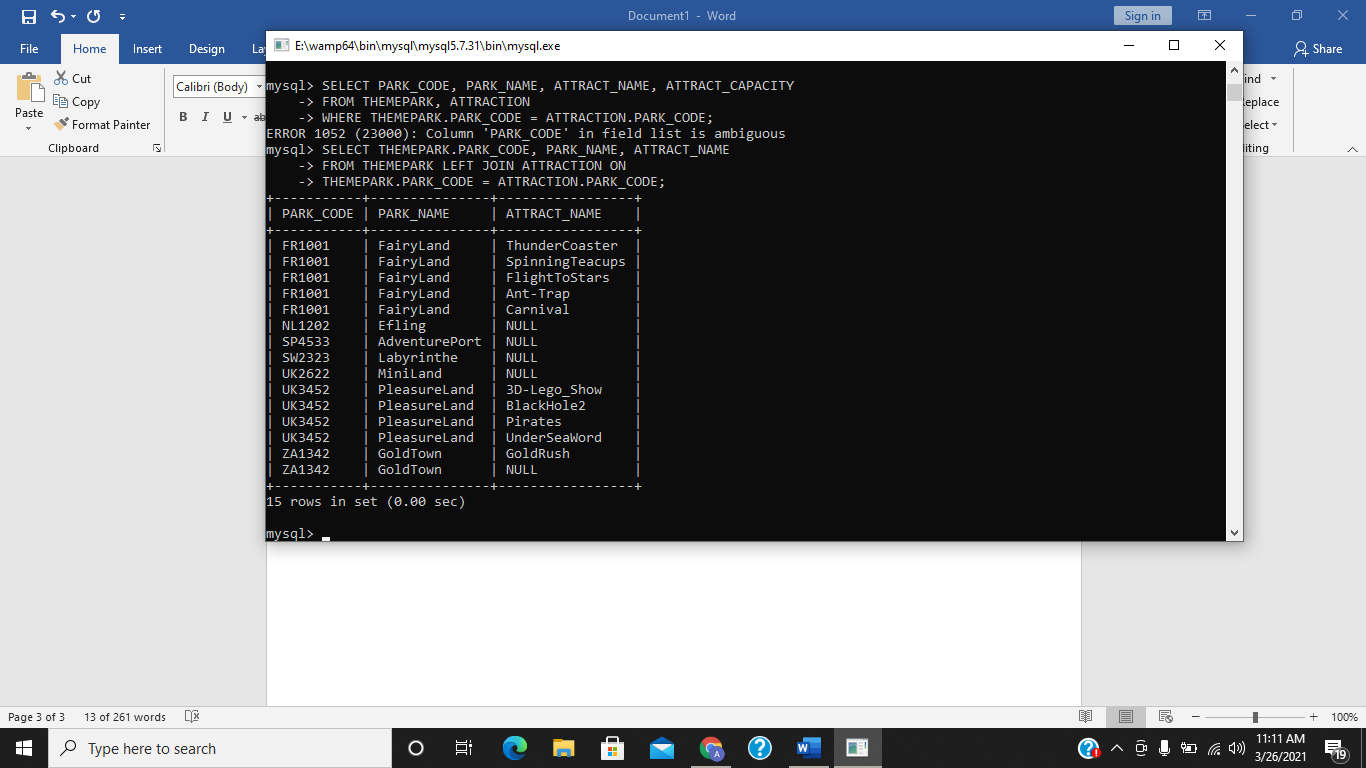


**Task 4.6 Enter the query above and check your results with those shown in Figure 53.**

SELECT THEMEPARK.PARK\_CODE, PARK\_NAME, ATTRACT\_NAME

FROM THEMEPARK LEFT JOIN ATTRACTION ON

THEMEPARK.PARK\_CODE = ATTRACTION.PARK\_CODE;

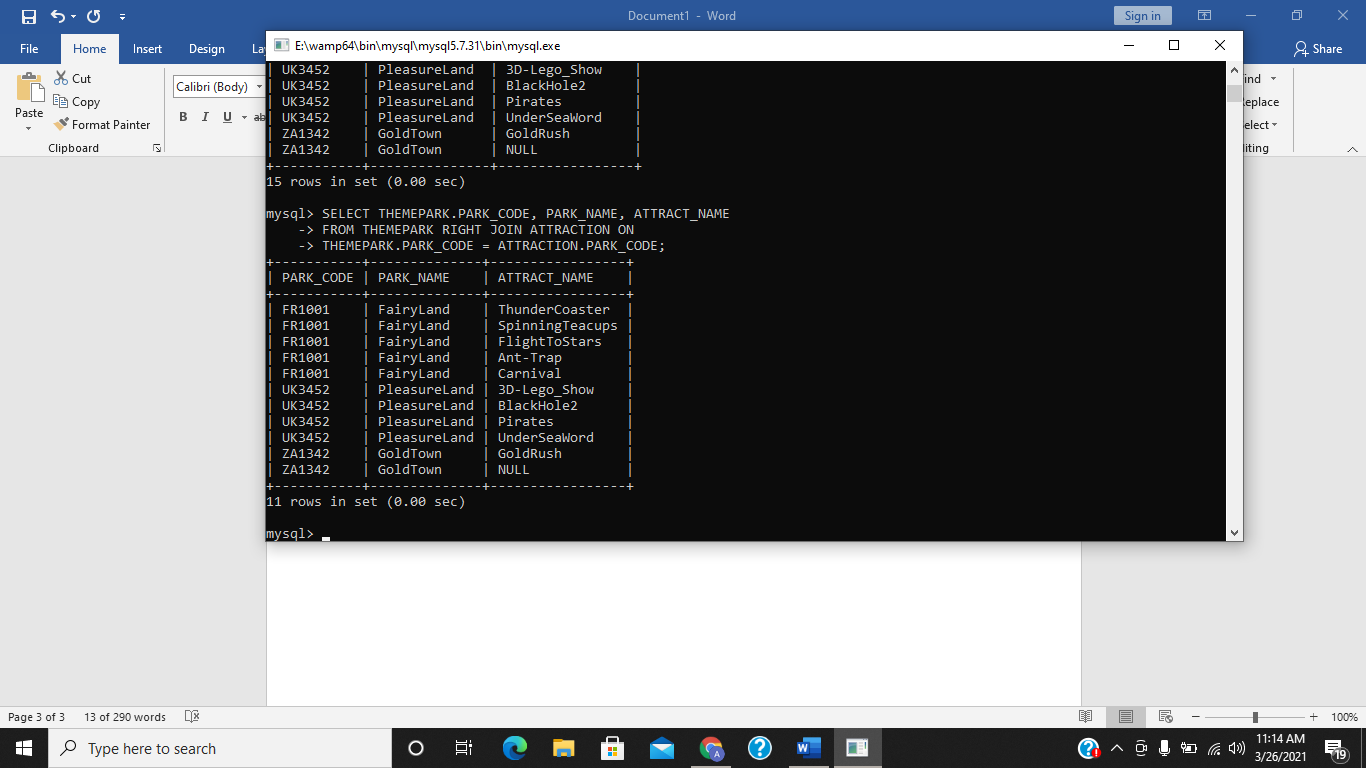


**Task 4.7 Enter the query above and check your results with those shown in Figure 54.**

SELECT THEMEPARK.PARK\_CODE, PARK\_NAME, ATTRACT\_NAME

FROM THEMEPARK RIGHT JOIN ATTRACTION ON

THEMEPARK.PARK\_CODE = ATTRACTION.PARK\_CODE;

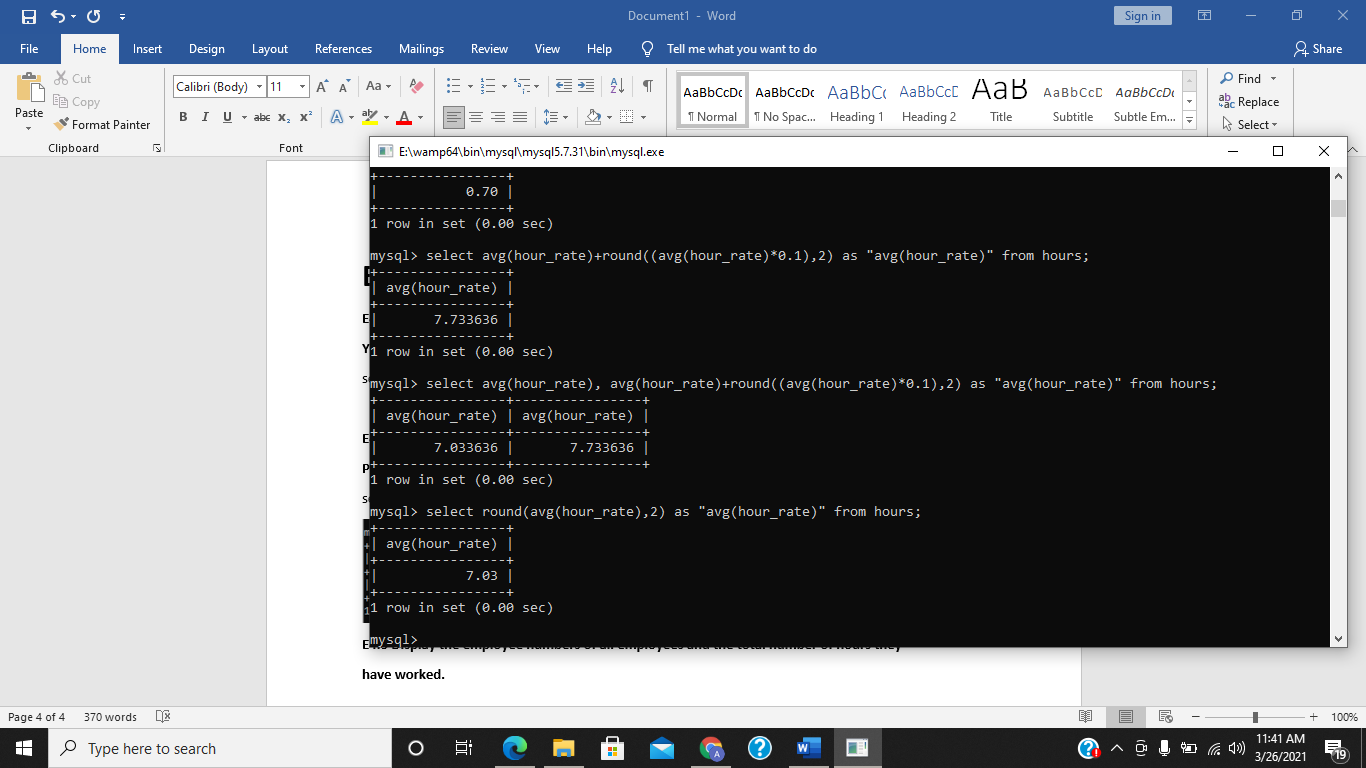


**Exercise:**

**E4.1 Write a query that displays the average hourly rate that has been paid to all employees.**

**Your query should return €7.03.**

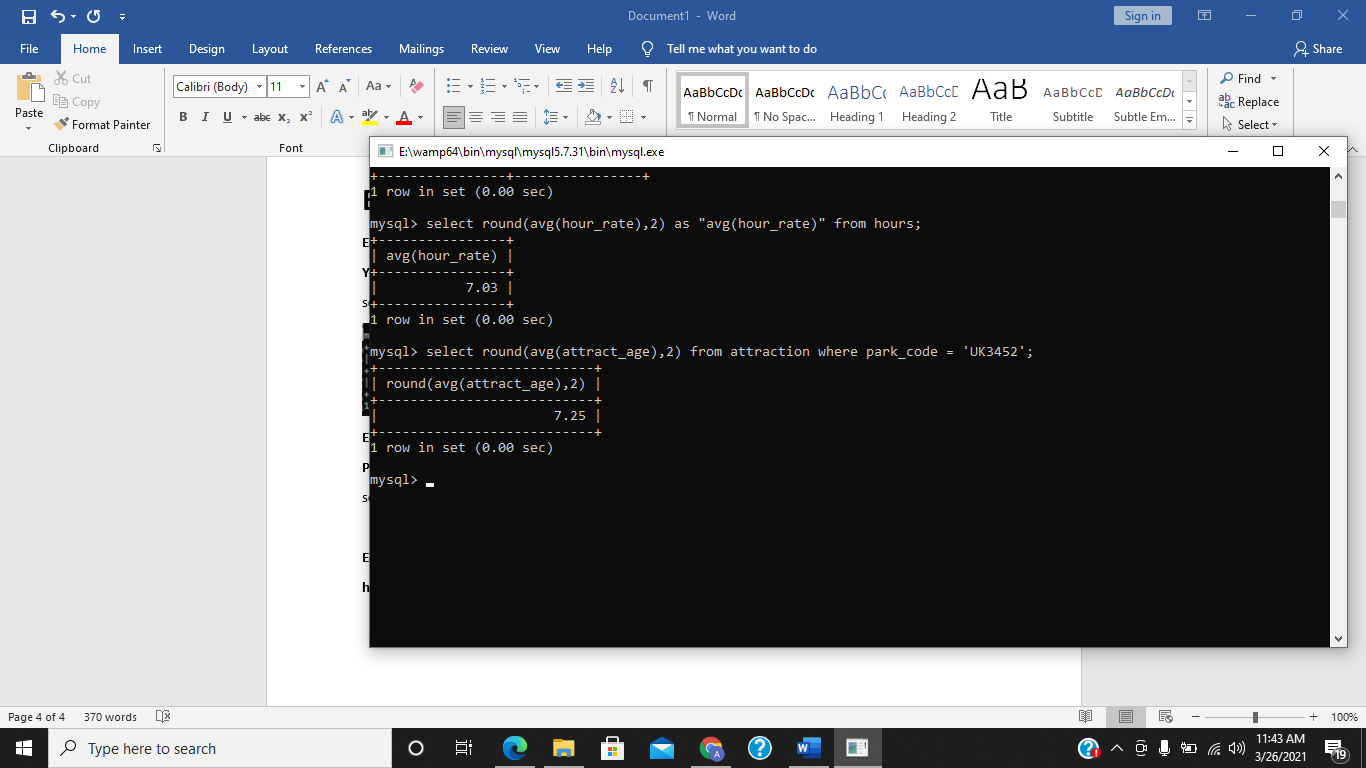
select round(avg(hour\_rate),2) as "avg(hour\_rate)" from hours;



**E4.2 Write a query that displays the average attraction age for all attractions where the**

**PARK\_CODE is equal to ‘UK3452’. Your query should return 7.25 years.**

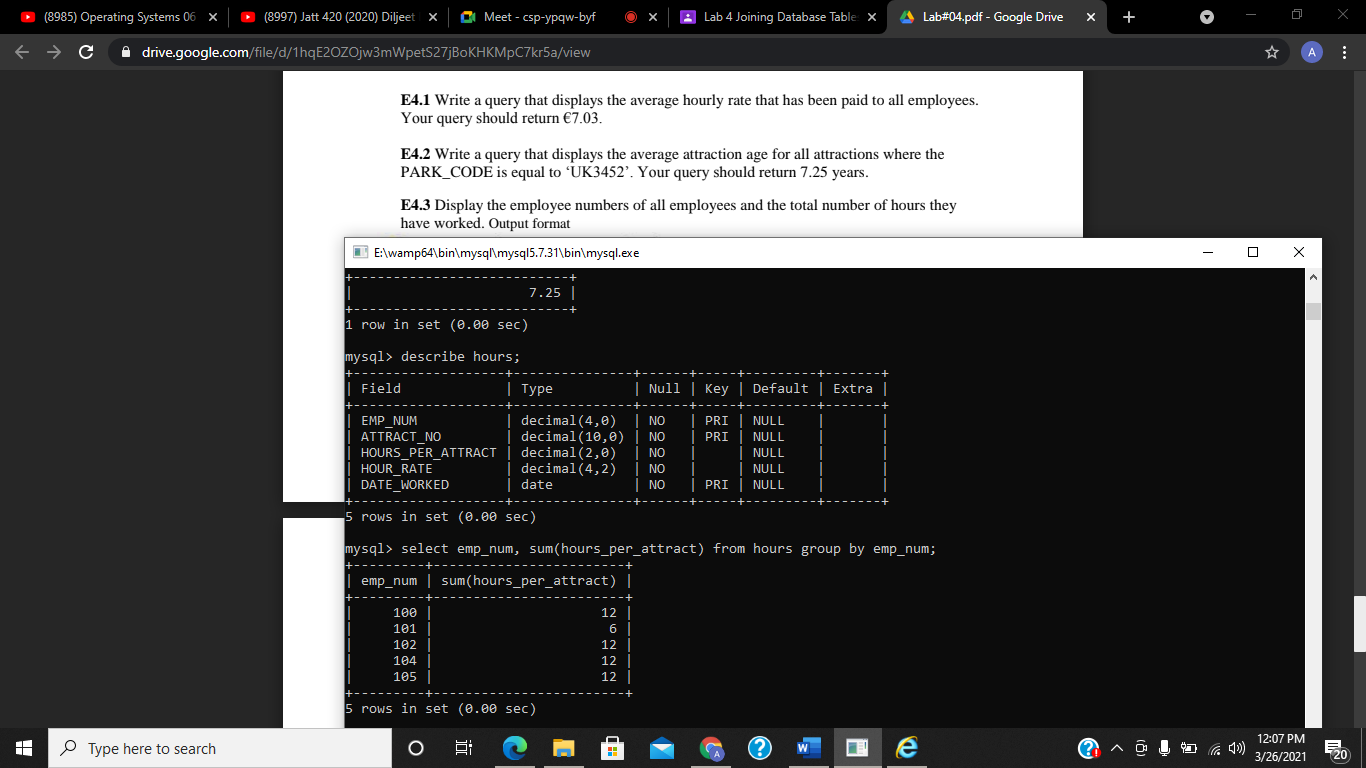
select round(avg(attract\_age),2) from attraction where park\_code = 'UK3452';



**E4.3 Display the employee numbers of all employees and the total number of hours they**

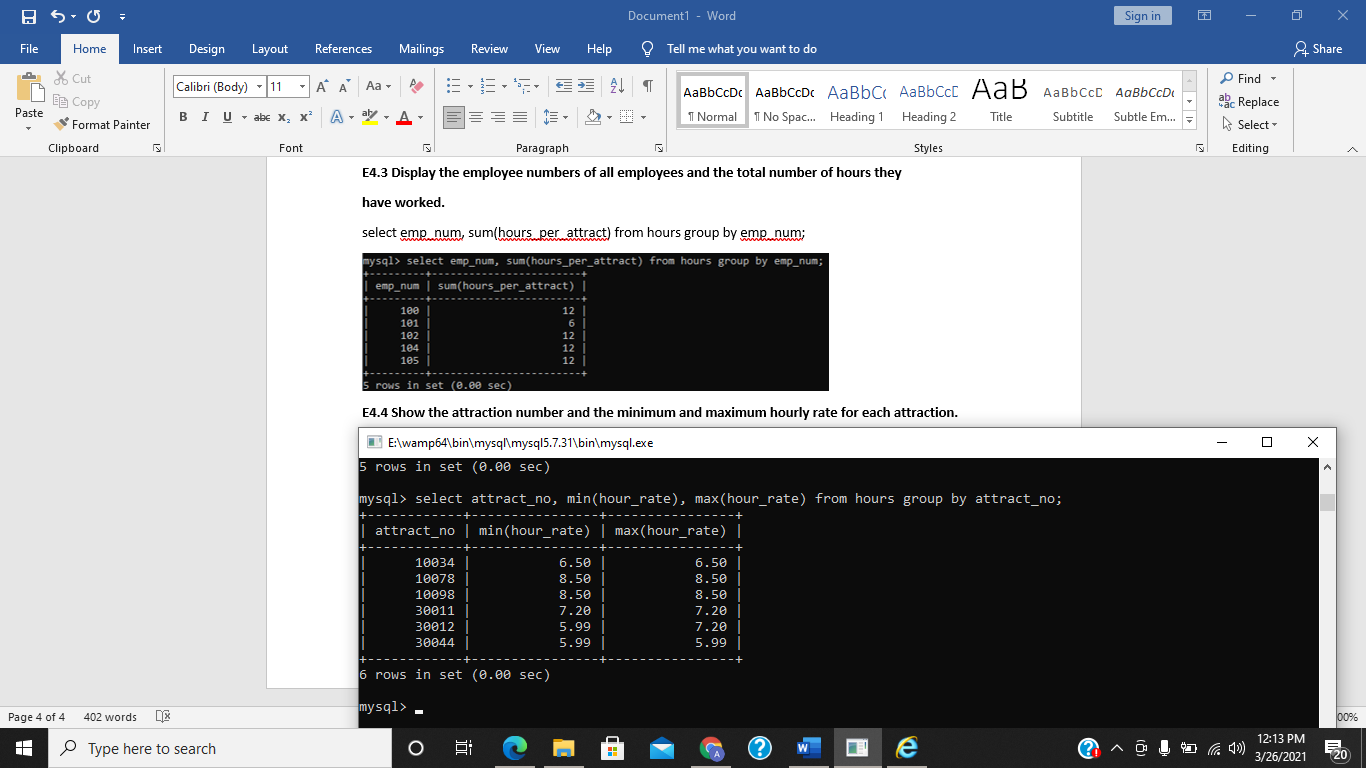
**have worked.**

select emp\_num, sum(hours\_per\_attract) from hours group by emp\_num;



**E4.4 Show the attraction number and the minimum and maximum hourly rate for each attraction.**

select attract\_no, min(hour\_rate), max(hour\_rate) from hours group by attract\_no;



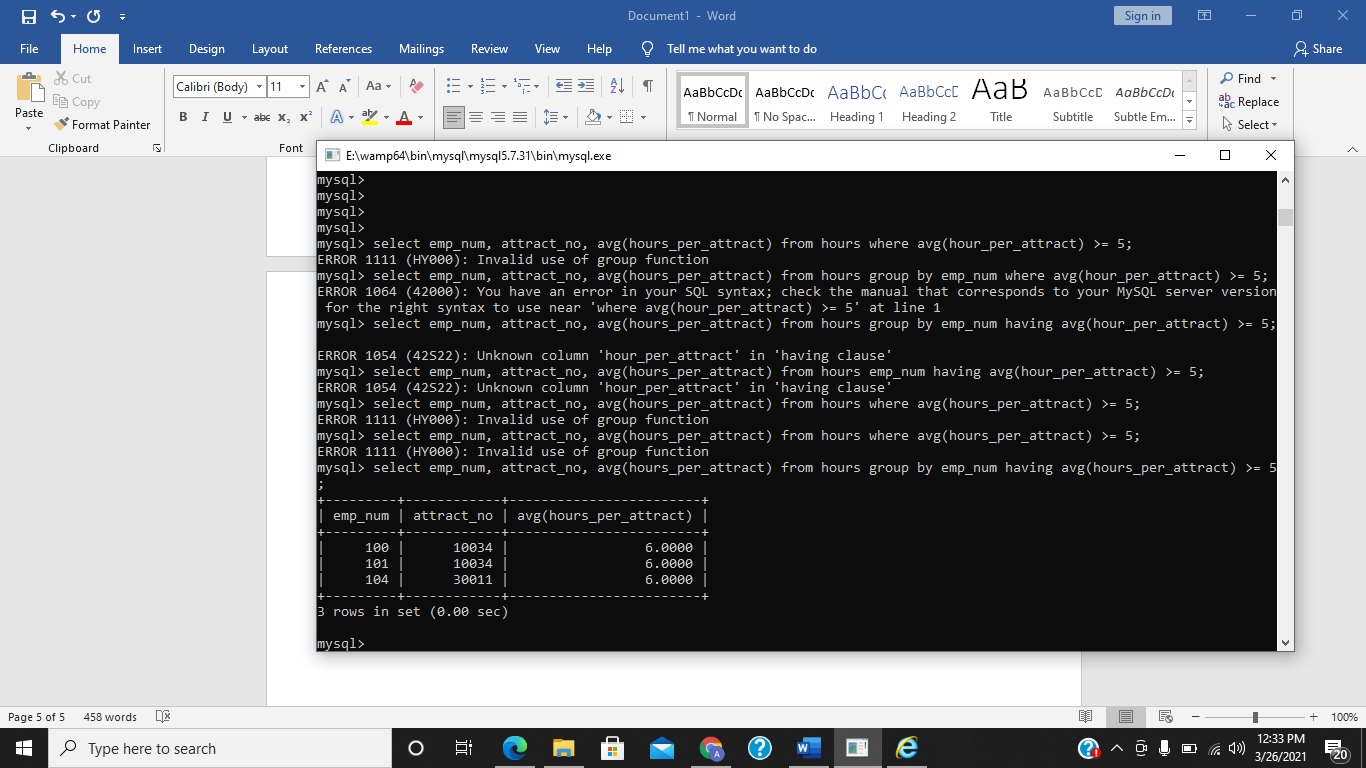
**E4.5 Using the HOURS table, write a query to display the employee number (EMP\_NUM), the**

**attraction number (ATTRACT-NO) and the average hours worked per attraction**

**(HOURS\_PER\_ATTRACT) limiting the result to where the average hours worked per attraction**

**is greater or equal to 5.**

select emp\_num, attract\_no, avg(hours\_per\_attract) from hours group by emp\_num having avg(hours\_per\_attract) >= 5;

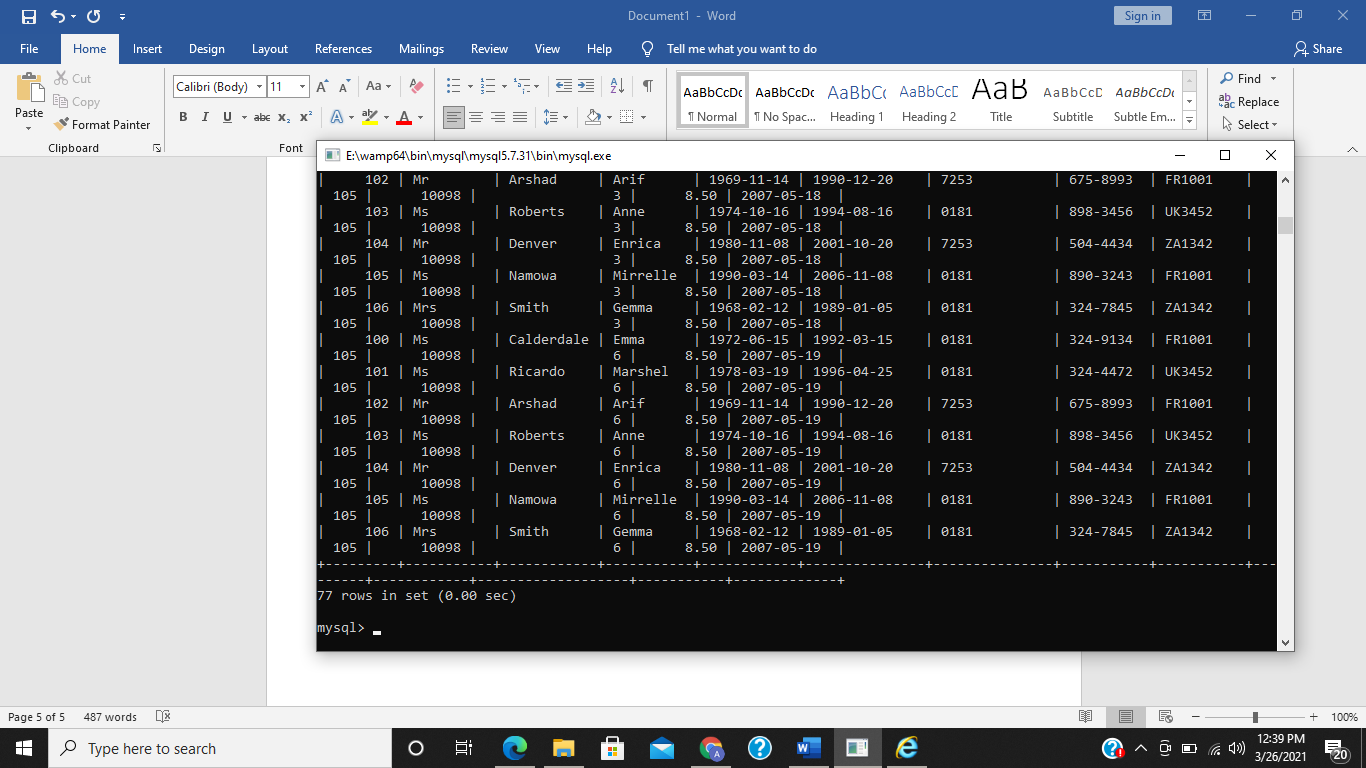


**E 4.6 Write a CROSS JOIN query which selects all rows from the EMPLOYEE and**

**HOURS tables. How many rows were returned?**

select \* from employee cross join hours;

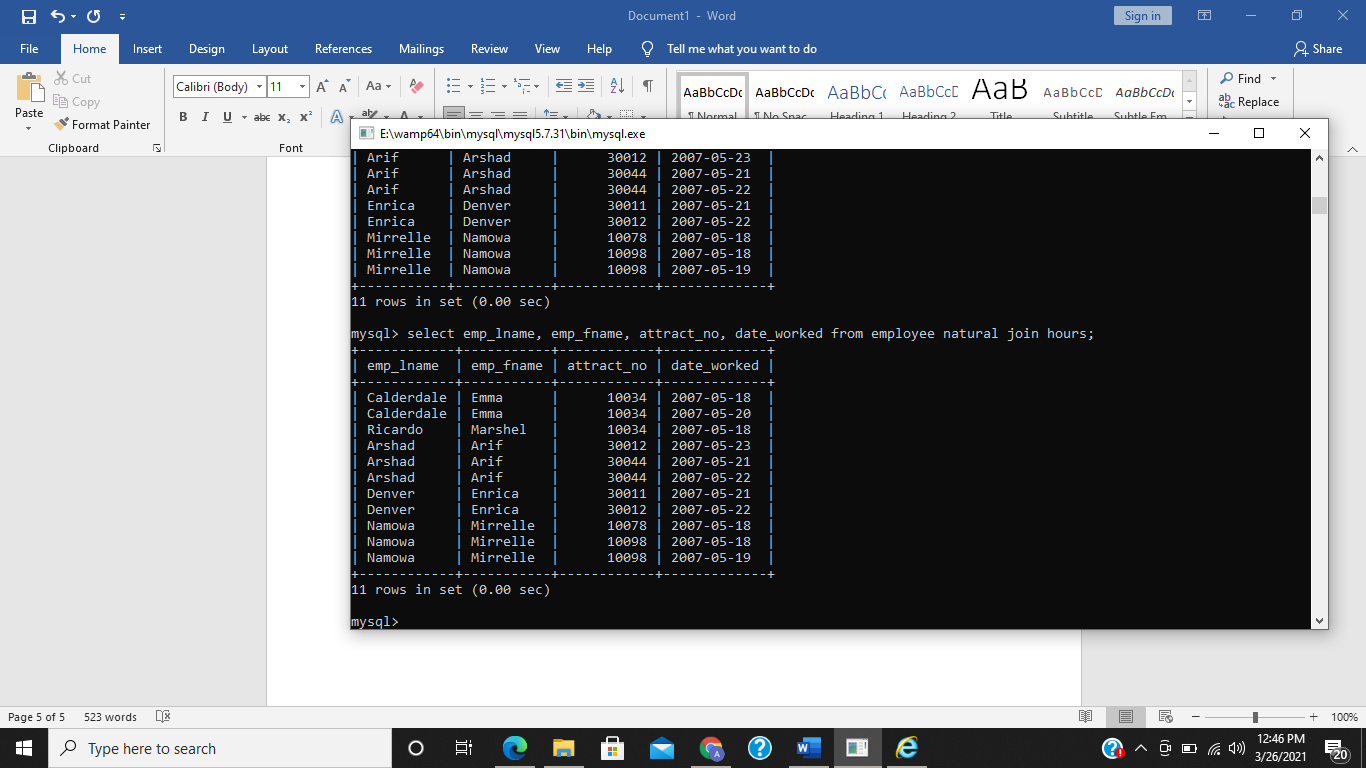
77 rows were returned.



**E.4.7 Write a query that displays the employees first and last name (EMP\_FNAME**

**and EMP\_LNAME), the attraction number(ATTRACT\_NO) and the date worked.**

select emp\_lname, emp\_fname, attract\_no, date\_worked from employee natural join hours;

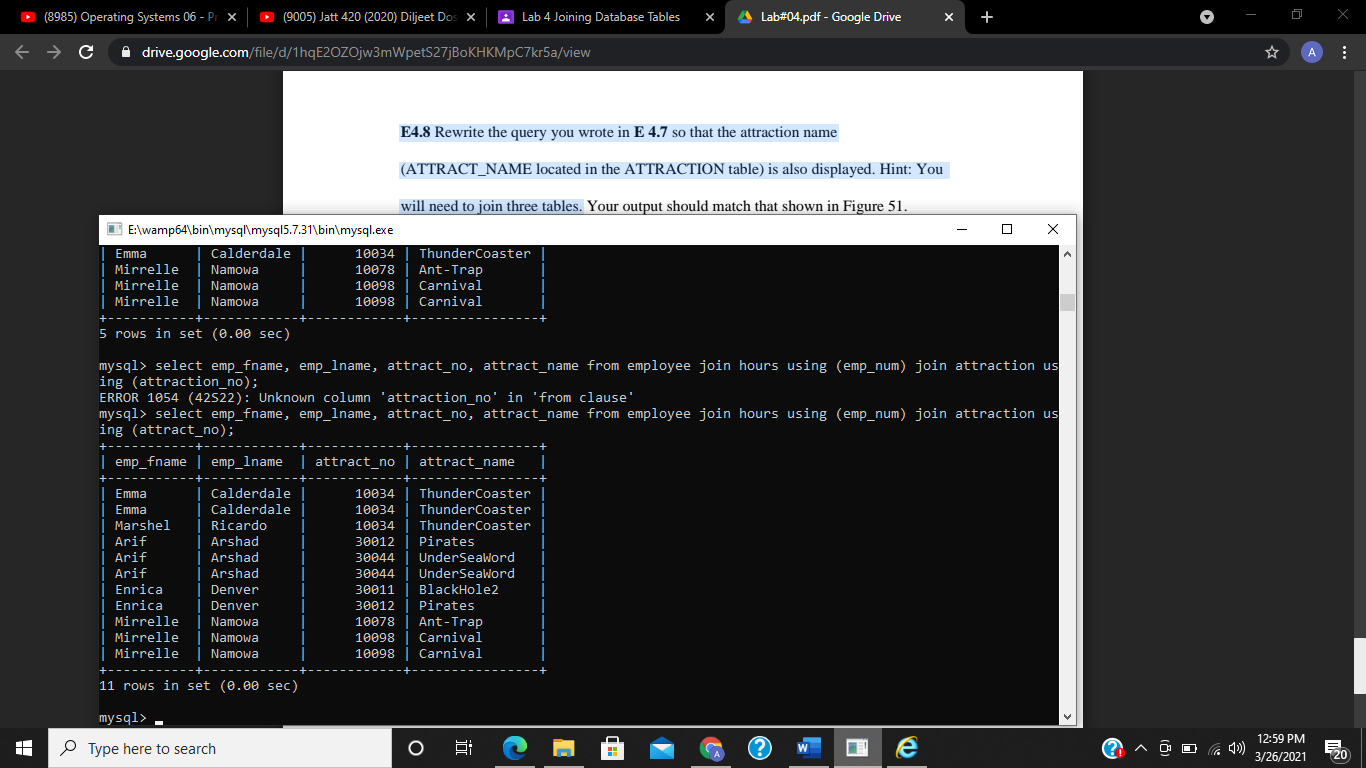


**E4.8 Rewrite the query you wrote in E 4.7 so that the attraction name**

**(ATTRACT\_NAME located in the ATTRACTION table) is also displayed. Hint: You**

**will need to join three tables.**

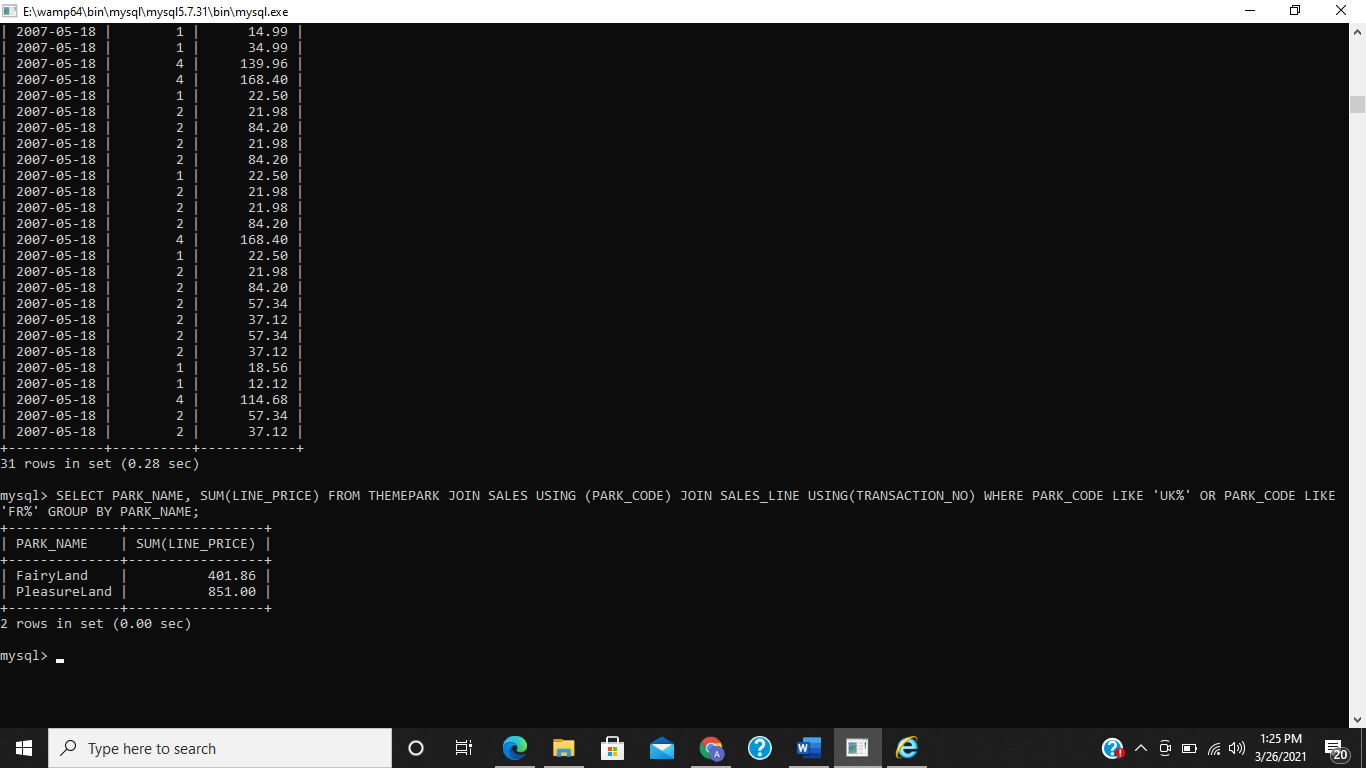
select emp\_fname, emp\_lname, attract\_no, attract\_name from employee join hours using (emp\_num) join attraction using (attract\_no);



**E4.9 Display the park names and total sales for Theme Parks who are located in the**

**country ‘UK’ or ‘FR’.**

SELECT PARK\_NAME, SUM(LINE\_PRICE) FROM THEMEPARK JOIN SALES USING (PARK\_CODE) JOIN SALES\_LINE USING(TRANSACTION\_NO) WHERE PARK\_CODE LIKE 'UK%' OR PARK\_CODE LIKE 'FR%' GROUP BY PARK\_NAME;



**E4.10 List the sale date, line quantity and line price of all transactions on the 18th May**

**2007. (Hint: Remember the format of MySQL dates is ‘2007-05-18’).**

select sale\_date, line\_qty, line\_price from sales join sales\_line using (transaction\_no) where sale\_date = '2007-05-18';

