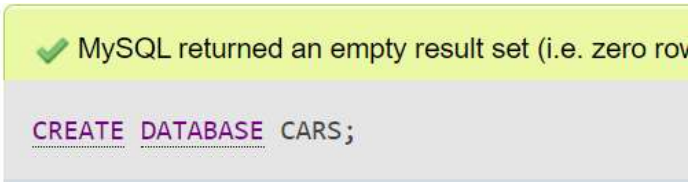
BDTM: Big Data Tools for Managers

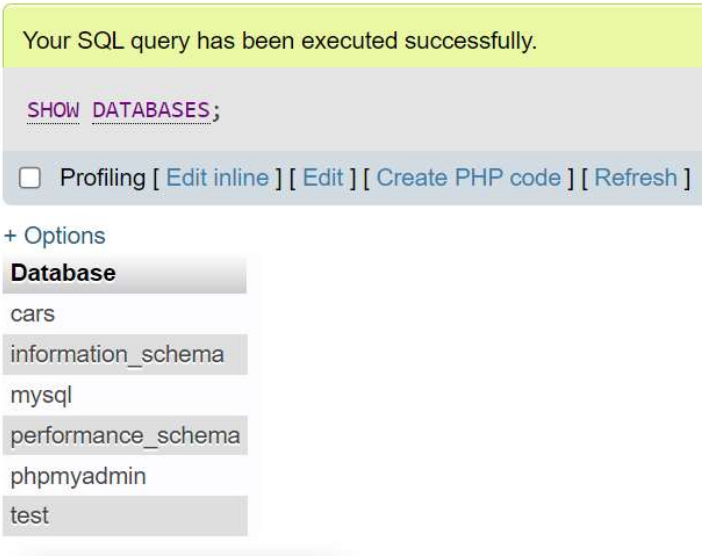
1st Internal Answers [Set-A]

Q1. Demonstrate Basic database operation with MySQL [10]

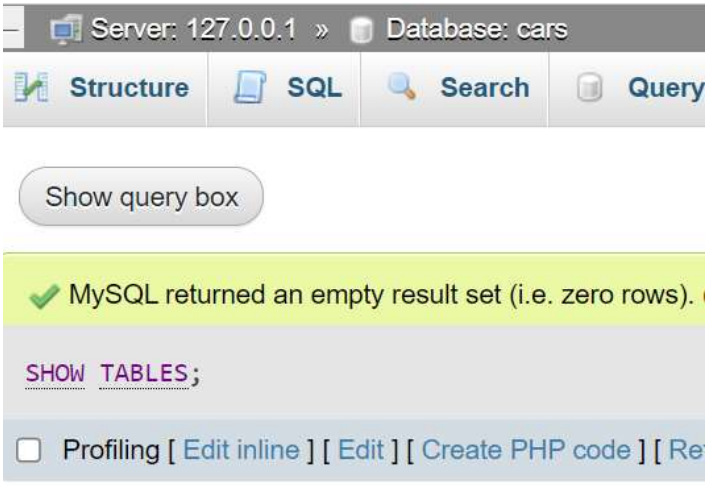
A. Create a database CARS in MySQL



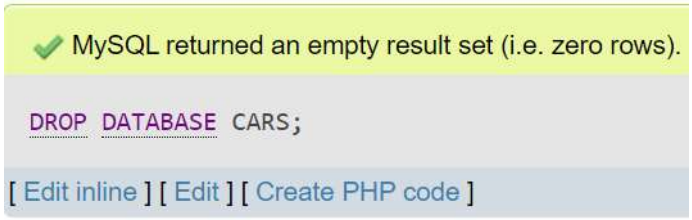
B. List all the databases available in MySQL



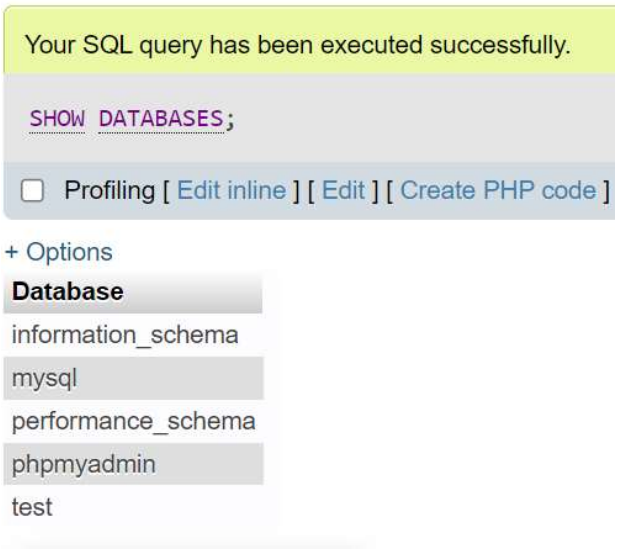
C. Select the CARS database, and list all the tables available in CARS database



D. Remove CARS database from MySQL



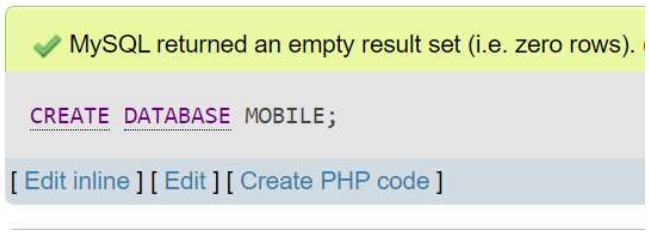
E. List all the databases available in MySQL

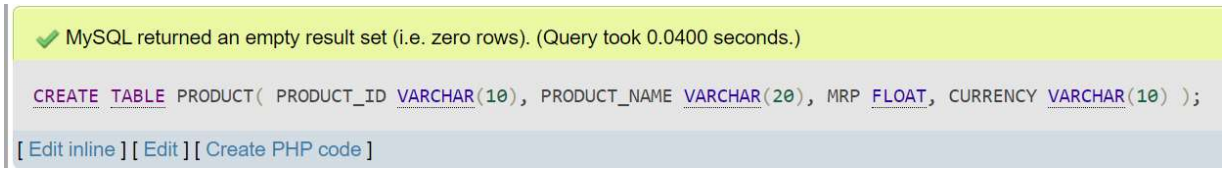


Q2. Demonstrate Basic RDBMS table operations with MySQL [10]

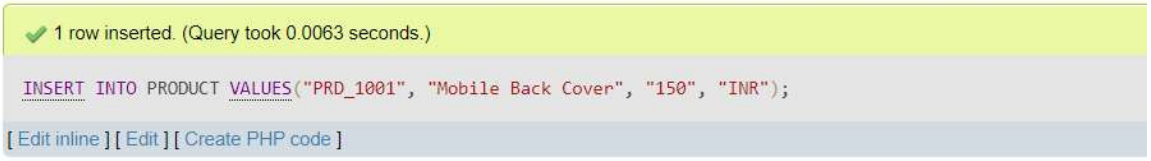
PRODUCT_ID	PRODUCT_NAME	MRP	CURRENCY
PRD_1001	Mobile Back Cover	150	INR
PRD_1002	Mobile Glass	3	USD
PRD_1003	Flip Cover	250	INR
PRD_1004	Screencast	500	INR
PRD_1005	Earphones	300	INR

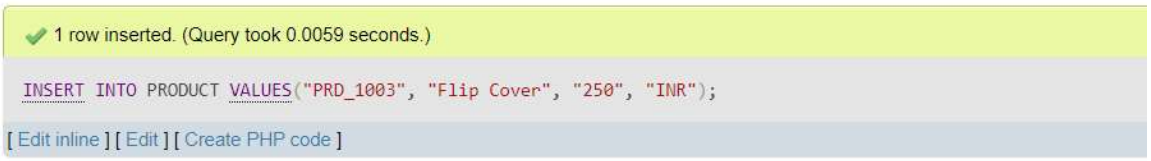
A. Create database MOBILE, and create above given PRODUCT table in MOBILE database

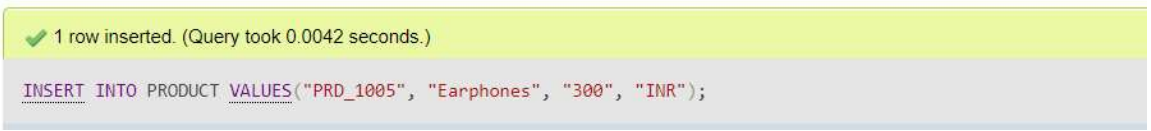




B. Insert above given sample records in PRODUCT table



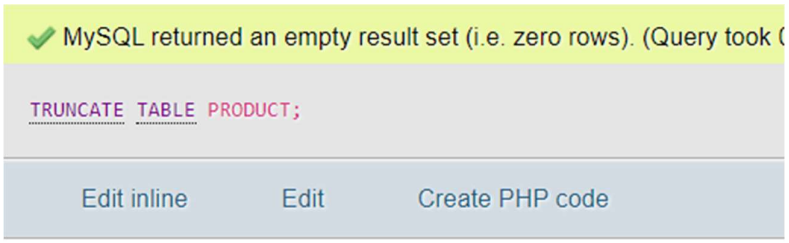




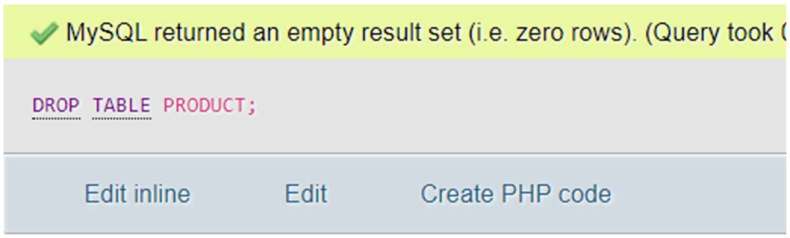
C. Display PRODUCT table structure

Field	Type	Null	Key	Default	Extra
PRODUCT_ID	varchar(10)	YES		*NULL*	
PRODUCT_NAME	varchar(20)	YES		*NULL*	
MRP	float	YES		*NULL*	
CURRENCY	varchar(10)	YES		*NULL*	

D. Truncate PRODUCT table



E. Delete PRODUCT table from MOBILE database

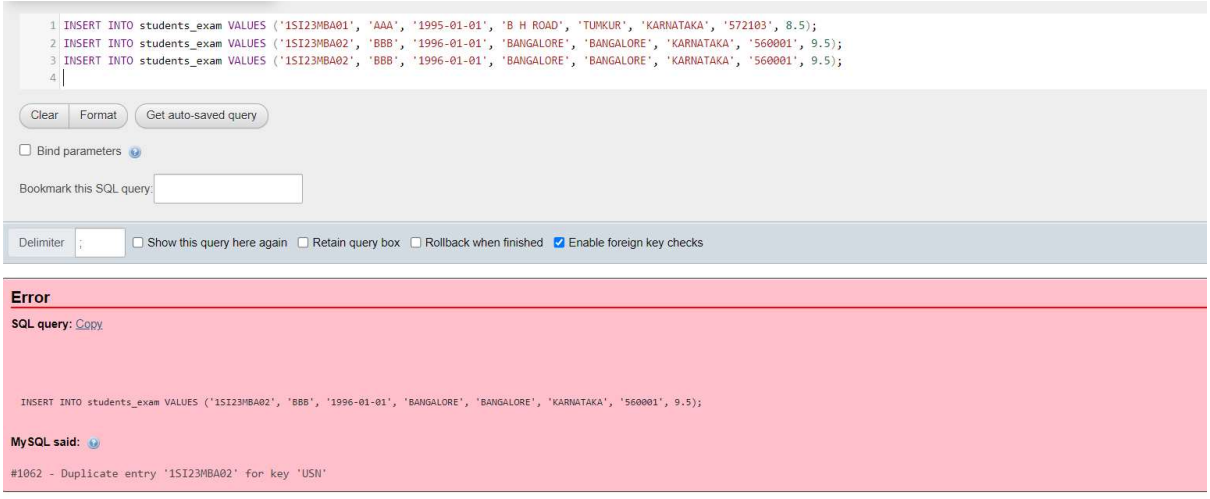


Q3. Demonstrate NOT NULL, UNIQUE and DEFAULT Constraints in MySQL RDBMS Table [10]

USN	NAME	DOB	ADDRESS	CITY	STATE	PINCODE	CGPA
1SI23MBA01	AAA	1995-01-01	B H ROAD	TUMKUR	KARNATAKA	572103	8.5
1SI23MBA02	BBB	1996-01-01	BANGALORE	BANGALORE	KARNATAKA	560001	9.5
1SI23MBA02	BBB	1996-01-01	BANGALORE	BANGALORE	KARNATAKA	572103	9.5
1SI23MBA04		1999-01-01	B H ROAD	TUMKUR	KARNATAKA	572103	8.5
1SI23MBA05	FFF	1999-01-01	B H ROAD				

A. Create above table given table “students_exam“ with following constraint
   a. USN with UNIQUE constraint
   b. NAME with NOT NULL constraint
   c. CITY, STATE, PINCODE and CGPA having DEFAULT value TUMKUR, KARNATAKA, 572103 and 0

B. Insert above records into the students_exam table
   (Note : The error message is expected while inserting records into the table and place same error message as part of answers for 3rd, 4th & 5th records)



```
1 INSERT INTO students_exam VALUES ('1SI23MBA04', NULL, '1999-01-01', 'B H ROAD', 'TUMKUR', 'KARNATAKA', '560001', 9.5);
2
```

Clear | Format | Get auto-saved query

Bind parameters

Bookmark this SQL query:

Delimiter ; | Show this query here again | Retain query box | Rollback when finished | Enable foreign key checks

Error

SQL query: Copy

```
INSERT INTO students_exam VALUES ('1SI23MBA04', NULL, '1999-01-01', 'B H ROAD', 'TUMKUR', 'KARNATAKA', '560001', 9.5);
```

MySQL said:

```
#1048 - Column 'NAME' cannot be null
```

1 row inserted. (Query took 0.0139 seconds.)

```
INSERT INTO students_exam VALUES ('1SI23MBA05', 'FFF', '1999-01-01', 'B H ROAD', NULL, NULL, NULL, NULL);
```

[Edit inline] [Edit] [Create PHP code]

OR

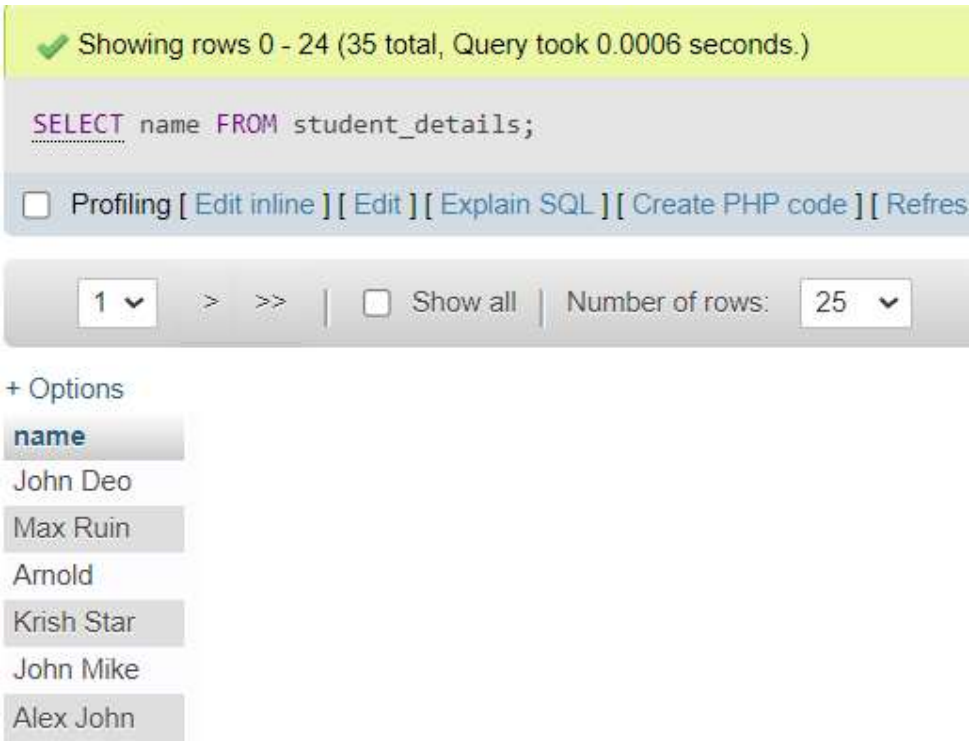
1 row inserted. (Query took 0.0174 seconds.)

```
INSERT INTO students_exam (USN, NAME, DOB, ADDRESS) VALUES ('1SI23MBA05', 'FFF', '1999-01-01', 'B H ROAD');
```

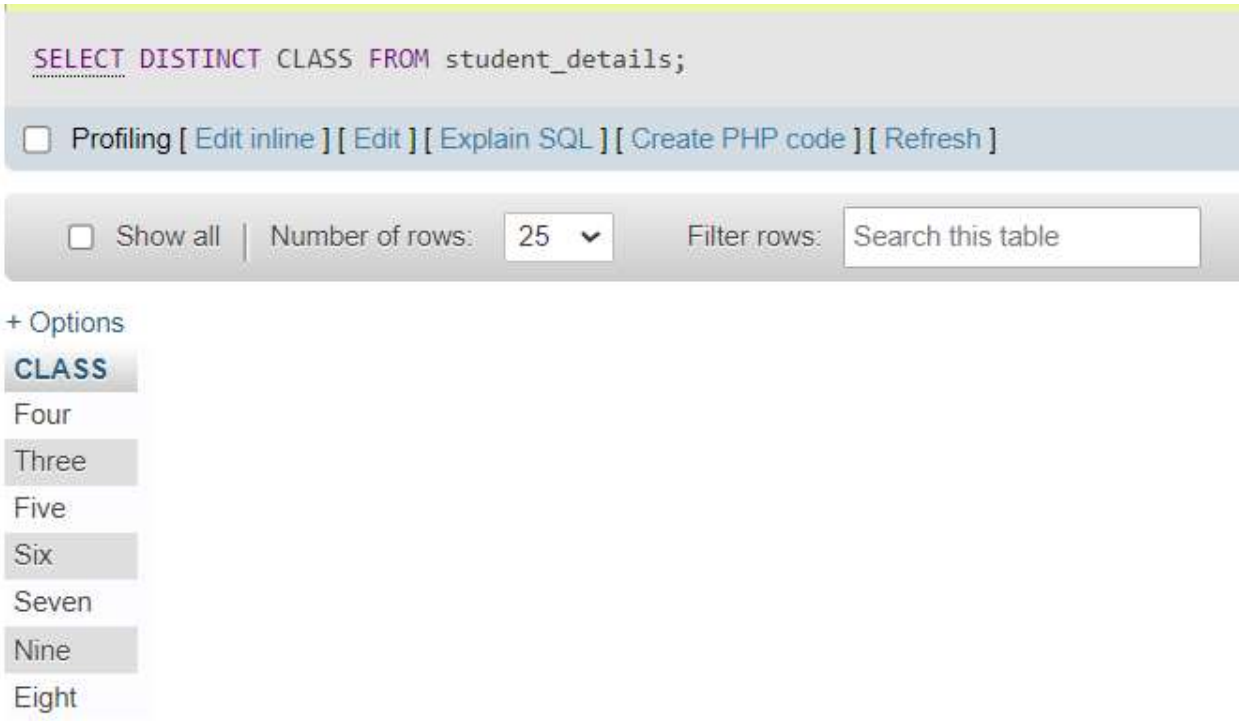
Q4. Working with SELECT clause in MySQL Table [10]

Copy mysql code from below link and paste into the SQL window to create and insert sample records. After executing given code in selected database new table will be created name “student_details”
https://raw.githubusercontent.com/sitmbadept/sitmbadept.github.io/main/BDTM/SQL/student_details.sql

A. Display single column name from student_details table



B. Display unique values for class from student_details



C. Display unique values for name, class details from student_details table

```
SELECT DISTINCT NAME, CLASS FROM student_details;
```

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

1 > >> | Show all | Number of rows: 25 Filter

+ Options

NAME	CLASS
John Deo	Four
Max Ruin	Three
Arnold	Three
Krish Star	Four
John Mike	Four
Alex John	Four
My John Rob	Five
Asruid	Five
Tes Qry	Six
Big John	Four
Ronald	Six

D. Display distinct records from student_details

```
SELECT DISTINCT * FROM student_details;
```

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

1 > >> | Show all | Number of rows: 25

+ Options

id	name	class	mark	gender
1	John Deo	Four	75	female
2	Max Ruin	Three	85	male
3	Arnold	Three	55	male
4	Krish Star	Four	60	female
5	John Mike	Four	60	female
6	Alex John	Four	55	male
7	My John Rob	Five	78	male
8	Asruid	Five	85	male
9	Tes Qry	Six	78	male
10	Big John	Four	55	female

E. Display all the records from student_details, also sort data in ascending order by name and descending order by class (everything in one query)

```
SELECT * FROM student_details ORDER BY name asc, class desc;
```

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

1 > >> | Show all | Number of rows: 25 Filter rows: Se

+ Options

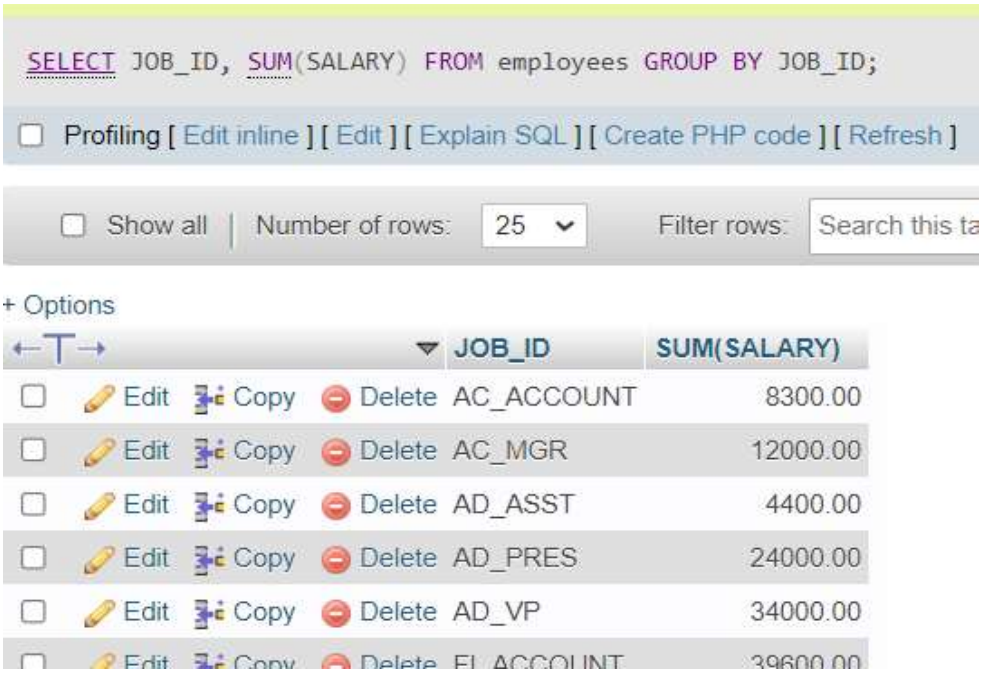
id	name ▲ 1	class ▼ 2	mark	gender
6	Alex John	Four	55	male
3	Arnold	Three	55	male
8	Asruid	Five	85	male
21	Babby John	Four	69	female
10	Big John	Four	55	female

Q5. Demonstrate advance SELECT clause in MySQL [10]

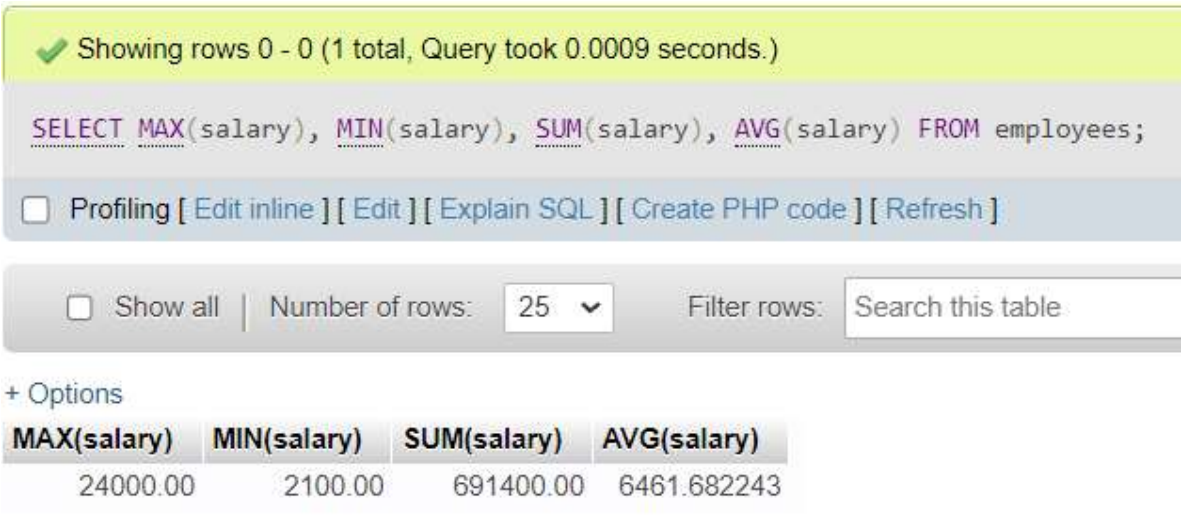
Copy mysql code from given link and paste into the SQL window to create and insert sample database & tables in MySQL. After executing given code, new database will be created name “bdtm_exam” in MySQL.
https://raw.githubusercontent.com/sitmbadept/sitmbadept.github.io/main/BDTM/SQL/bdtm-exam.sql

A. Write a query to get the total salaries payable to employees

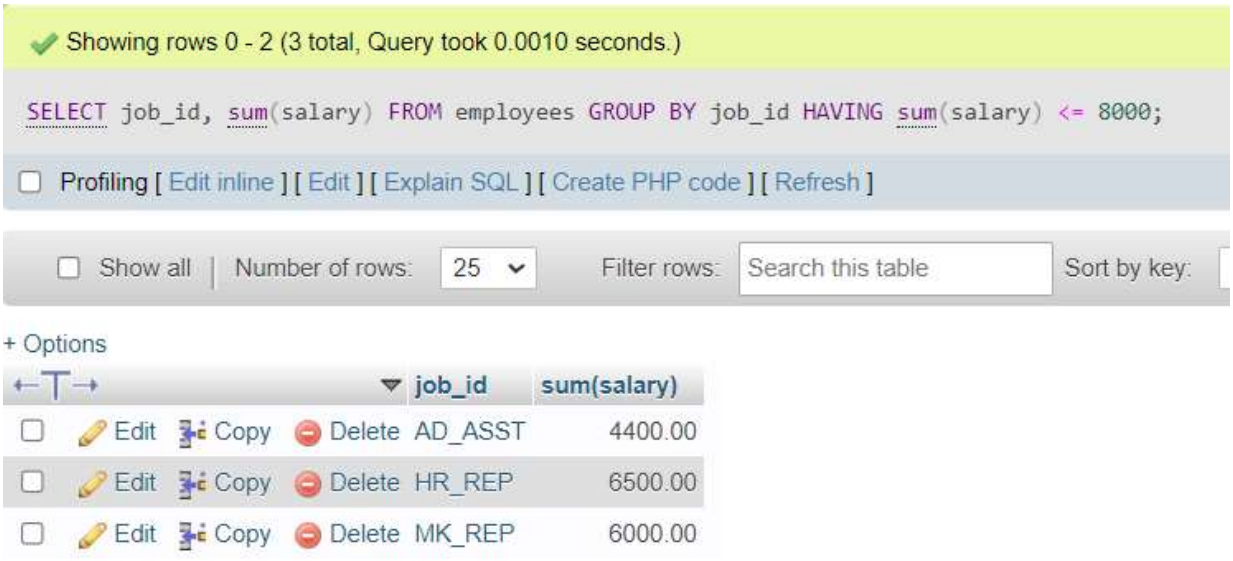
B. Write a query to get the total salaries payable to employees by their job_id



C. Write a query to get the highest, lowest, sum, and average salary of all employees.



D. Write a query to get the job ID and total salary of the employees where total salary is less than or equal to 8000.



E. Write a query to get the total salary, maximum, minimum, average salary of employees (job ID wise), for department ID 90 only.