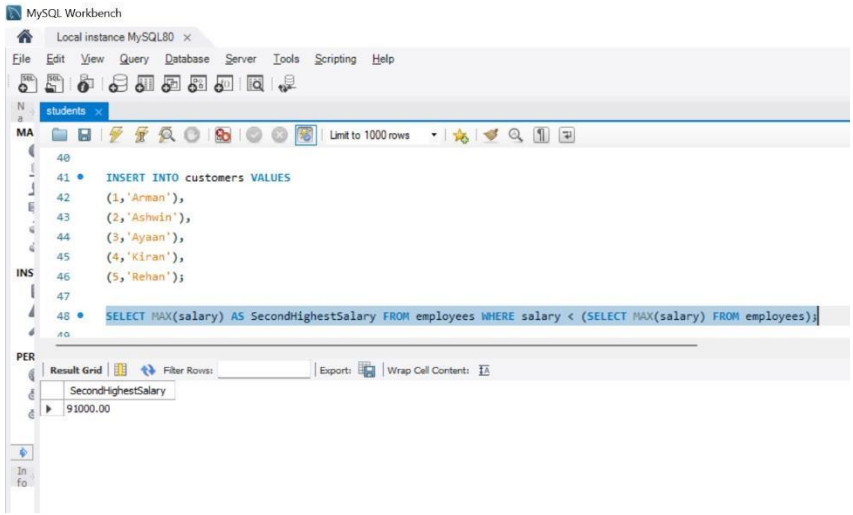
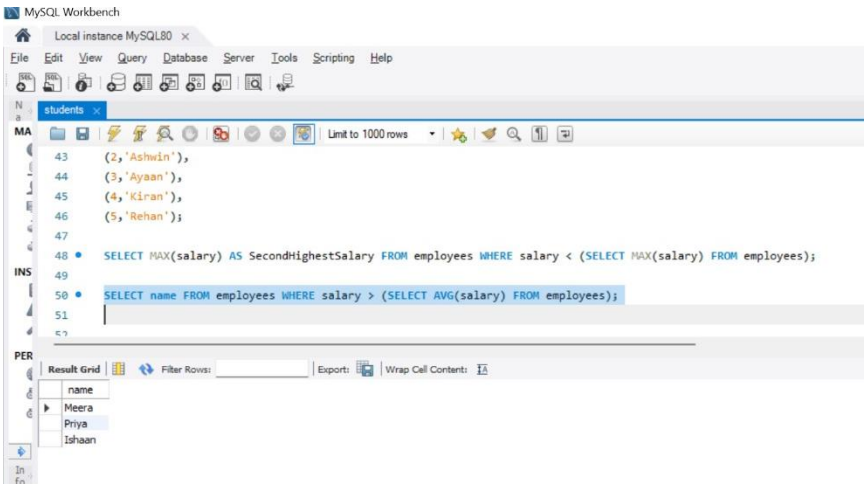
SQL Queries

Part A: Basic to Intermediate Queries :

1 .



2.



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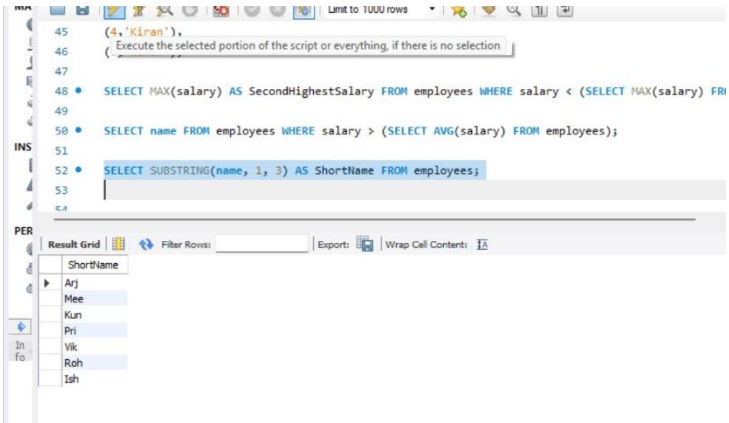

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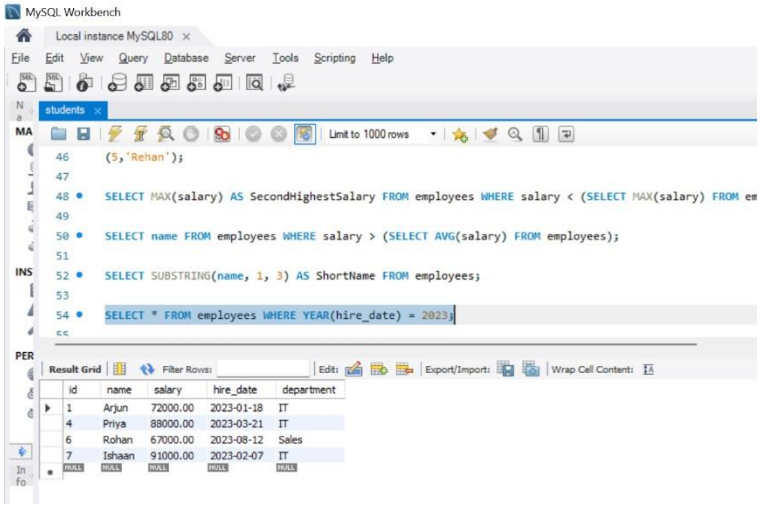
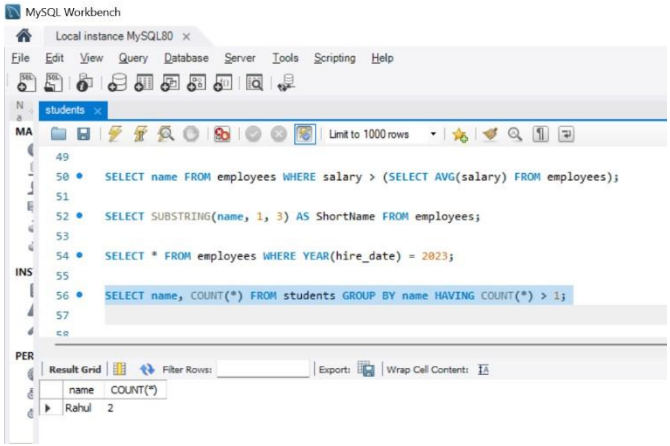
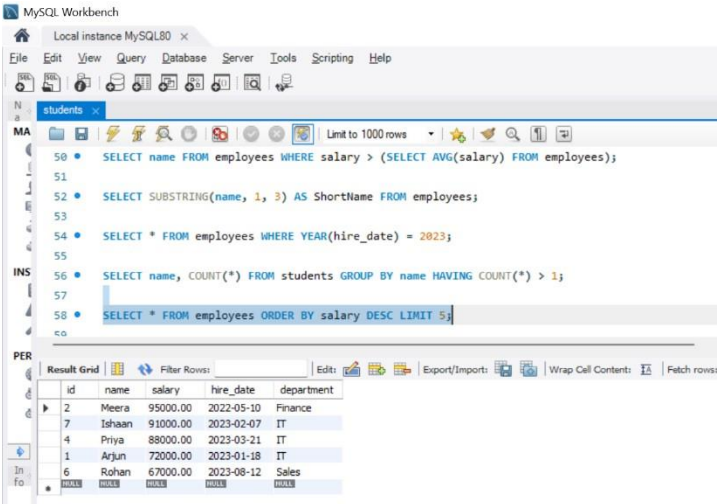

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
(5,'Rehan');
SELECT MAX(salary) AS SecondHighestSalary FROM employees WHERE salary < (SELECT MAX(salary) FROM em
SELECT name FROM employees WHERE salary > (SELECT AVG(salary) FROM employees);
SELECT SUBSTRING(name, 1, 3) AS ShortName FROM employees;
SELECT * FROM employees WHERE YEAR(hire_date) = 2023;
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
id name salary hire_date department
1 Arjun 72000.00 2023-01-18 IT
4 Priya 88000.00 2023-03-21 IT
6 Rohan 67000.00 2023-08-12 Sales
7 Ishaan 91000.00 2023-02-07 IT

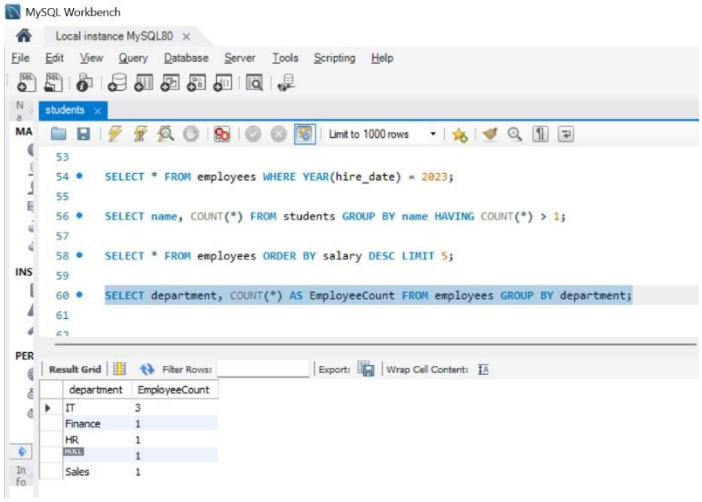
5.


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
SELECT name FROM employees WHERE salary > (SELECT AVG(salary) FROM employees);
SELECT SUBSTRING(name, 1, 3) AS ShortName FROM employees;
SELECT * FROM employees WHERE YEAR(hire_date) = 2023;
SELECT name, COUNT(*) FROM students GROUP BY name HAVING COUNT(*) > 1;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
name COUNT(*)
Rahul 2

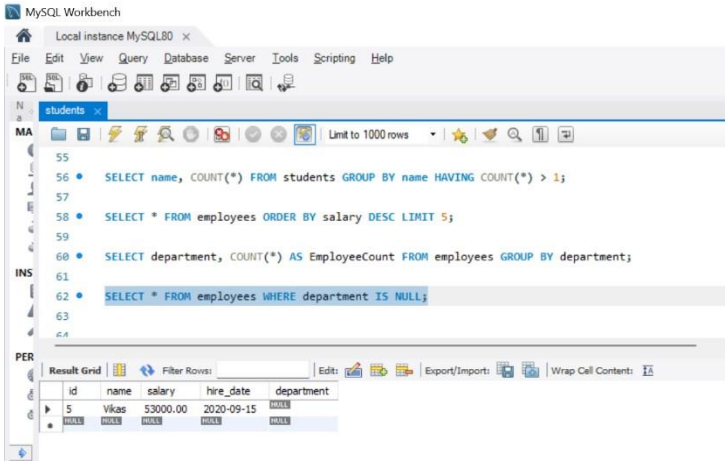
6.


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
SELECT name FROM employees WHERE salary > (SELECT AVG(salary) FROM employees);
SELECT SUBSTRING(name, 1, 3) AS ShortName FROM employees;
SELECT * FROM employees WHERE YEAR(hire_date) = 2023;
SELECT name, COUNT(*) FROM students GROUP BY name HAVING COUNT(*) > 1;
SELECT * FROM employees ORDER BY salary DESC LIMIT 5;
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
Fetch rows:
id name salary hire_date department
2 Meera 95000.00 2022-05-10 Finance
7 Ishaan 91000.00 2023-02-07 IT
4 Priya 88000.00 2023-03-21 IT
1 Arjun 72000.00 2023-01-18 IT
6 Rohan 67000.00 2023-08-12 Sales

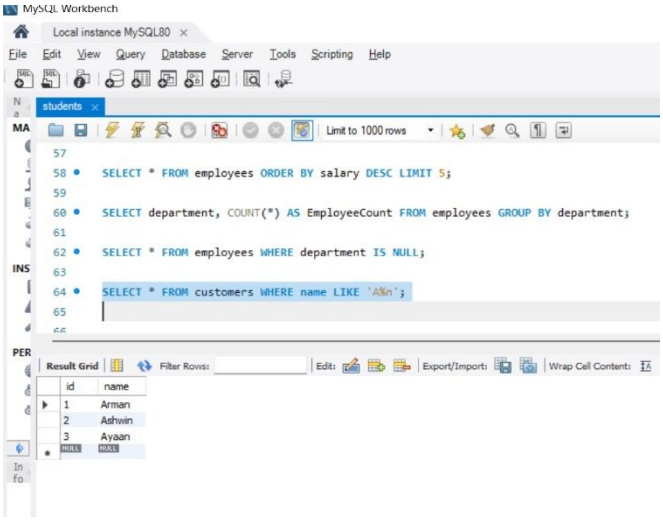
7.


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
53
54 SELECT * FROM employees WHERE YEAR(hire_date) = 2023;
55
56 SELECT name, COUNT(*) FROM students GROUP BY name HAVING COUNT(*) > 1;
57
58 SELECT * FROM employees ORDER BY salary DESC LIMIT 5;
59
60 SELECT department, COUNT(*) AS EmployeeCount FROM employees GROUP BY department;
61
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
department EmployeeCount
IT 3
Finance 1
HR 1
NULL 1
Sales 1

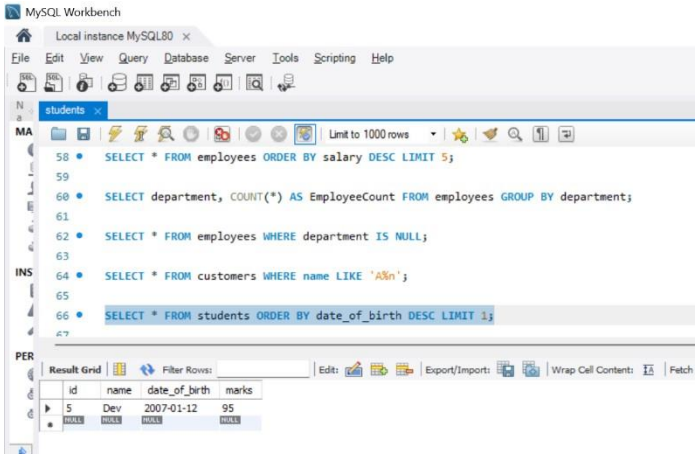
8.


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
55
56 SELECT name, COUNT(*) FROM students GROUP BY name HAVING COUNT(*) > 1;
57
58 SELECT * FROM employees ORDER BY salary DESC LIMIT 5;
59
60 SELECT department, COUNT(*) AS EmployeeCount FROM employees GROUP BY department;
61
62 SELECT * FROM employees WHERE department IS NULL;
63
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
id name salary hire_date department
5 Vikas 53000.00 2020-09-15 NULL

9.

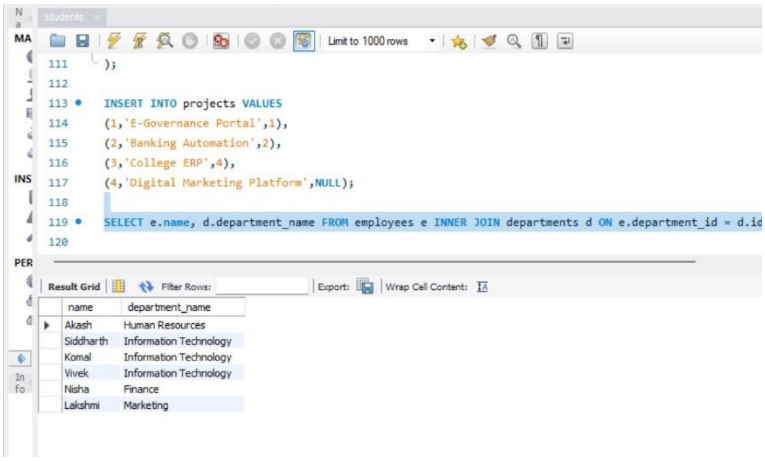

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
57
58 SELECT * FROM employees ORDER BY salary DESC LIMIT 5;
59
60 SELECT department, COUNT(*) AS EmployeeCount FROM employees GROUP BY department;
61
62 SELECT * FROM employees WHERE department IS NULL;
63
64 SELECT * FROM customers WHERE name LIKE 'A%n';
65
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
id name
1 Arman
2 Ashwin
3 Ayaan

10.



Part B: Joins & Subqueries :

1 .



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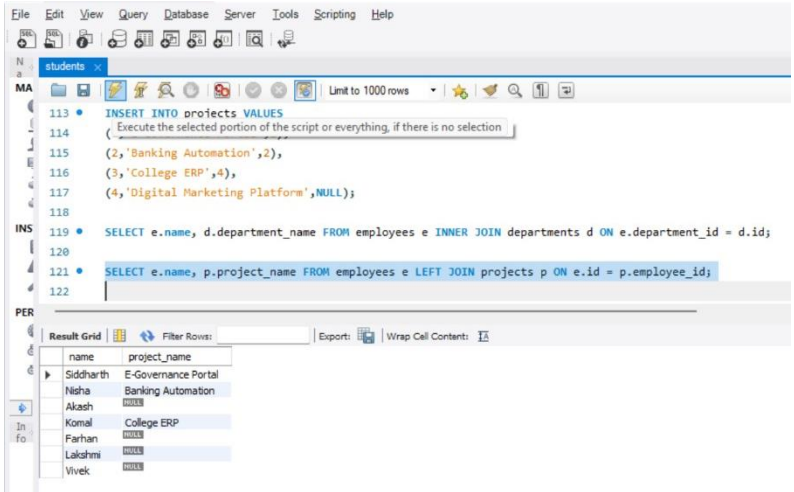

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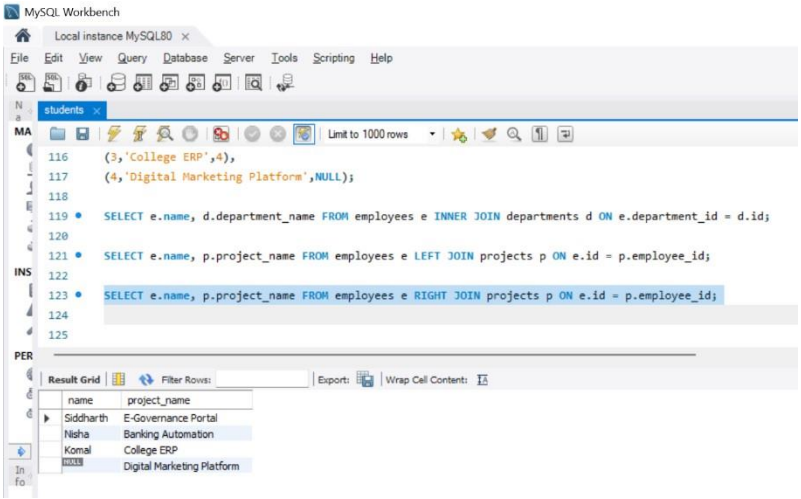
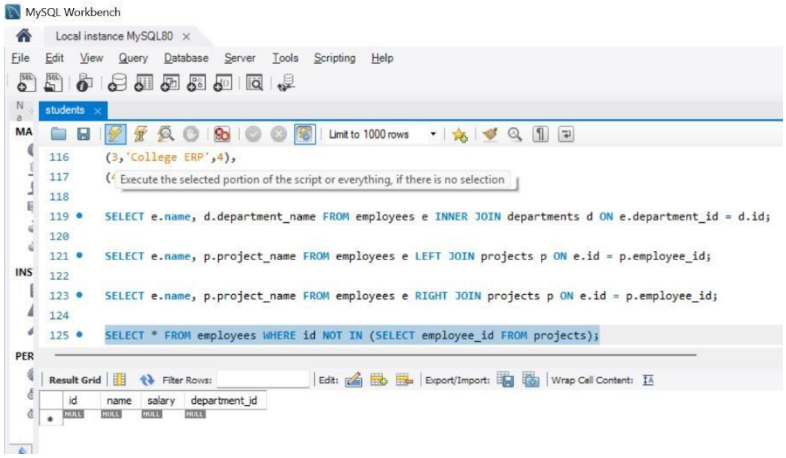
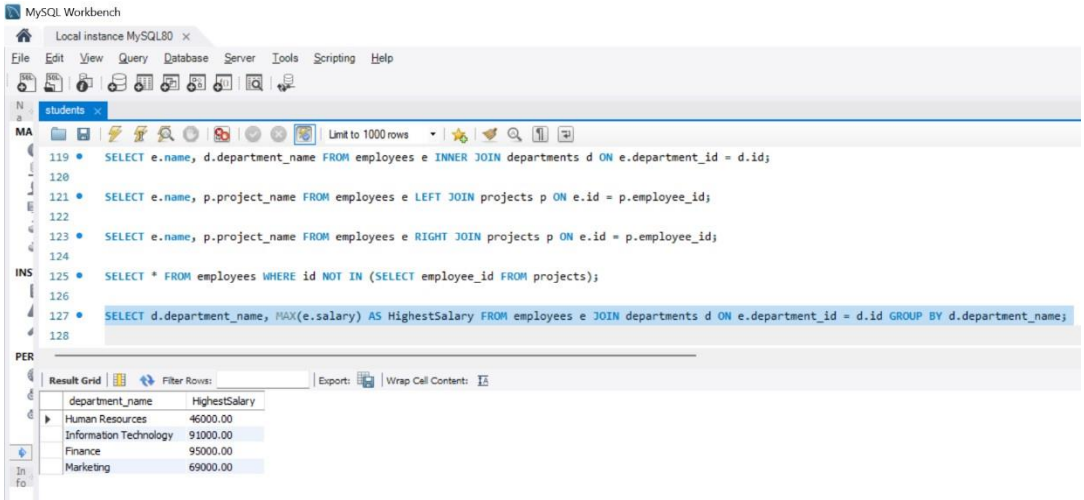

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
(3,'College ERP',4),
(4,'Digital Marketing Platform',NULL);
SELECT e.name, d.department_name FROM employees e INNER JOIN departments d ON e.department_id = d.id;
SELECT e.name, p.project_name FROM employees e LEFT JOIN projects p ON e.id = p.employee_id;
SELECT e.name, p.project_name FROM employees e RIGHT JOIN projects p ON e.id = p.employee_id;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
name project_name
Siddharth E-Governance Portal
Nisha Banking Automation
Komal College ERP
Digital Marketing Platform

4.

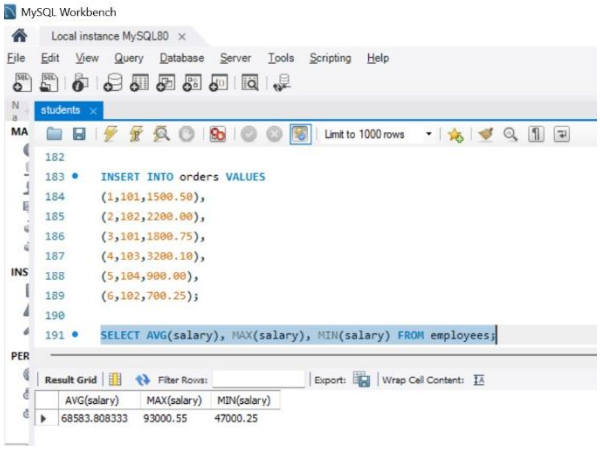

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
(3,'College ERP',4),
Execute the selected portion of the script or everything, if there is no selection
SELECT e.name, d.department_name FROM employees e INNER JOIN departments d ON e.department_id = d.id;
SELECT e.name, p.project_name FROM employees e LEFT JOIN projects p ON e.id = p.employee_id;
SELECT e.name, p.project_name FROM employees e RIGHT JOIN projects p ON e.id = p.employee_id;
SELECT * FROM employees WHERE id NOT IN (SELECT employee_id FROM projects);
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
id name salary department_id

5.


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
SELECT e.name, d.department_name FROM employees e INNER JOIN departments d ON e.department_id = d.id;
SELECT e.name, p.project_name FROM employees e LEFT JOIN projects p ON e.id = p.employee_id;
SELECT e.name, p.project_name FROM employees e RIGHT JOIN projects p ON e.id = p.employee_id;
SELECT * FROM employees WHERE id NOT IN (SELECT employee_id FROM projects);
SELECT d.department_name, MAX(e.salary) AS HighestSalary FROM employees e JOIN departments d ON e.department_id = d.id GROUP BY d.department_name;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
department_name HighestSalary
Human Resources 46000.00
Information Technology 91000.00
Finance 95000.00
Marketing 69000.00

Part C: Functions & Grouping :

1.



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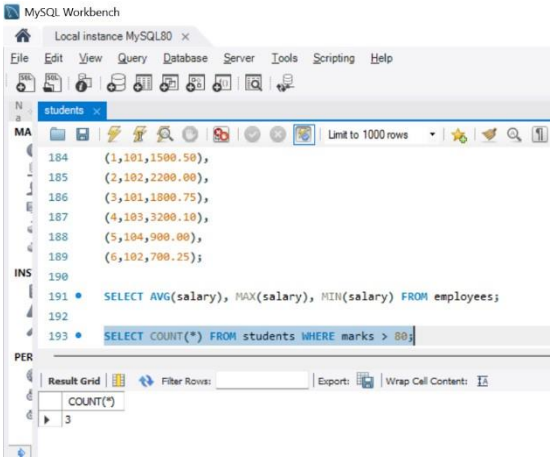
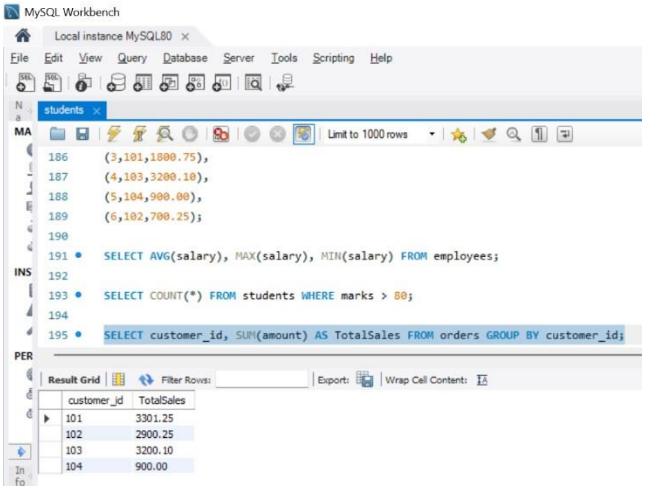
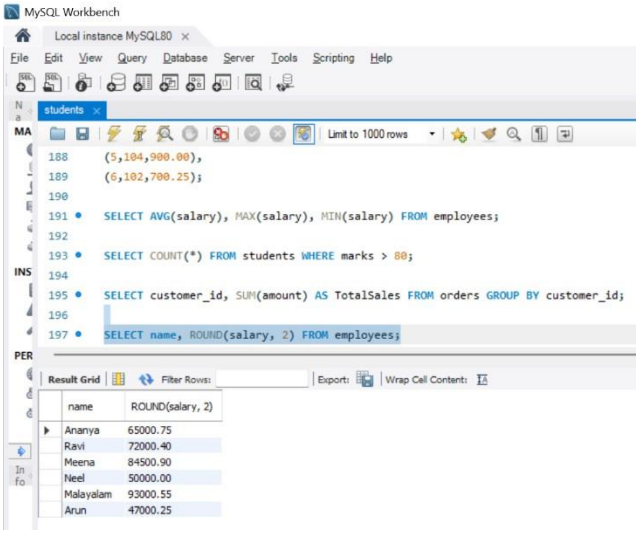


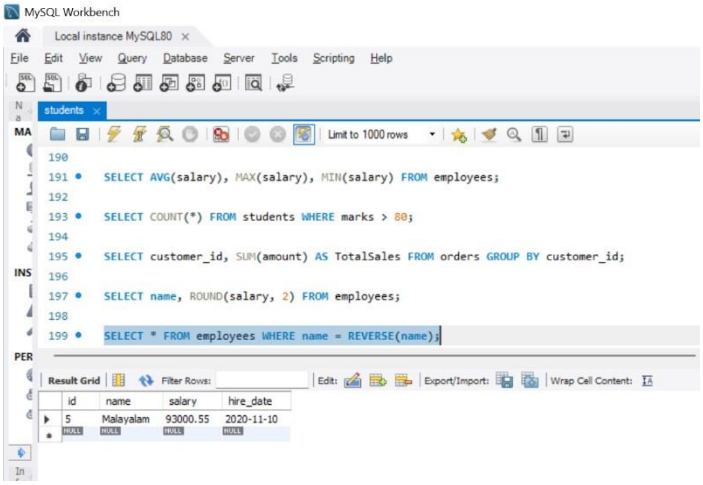
3.



4.

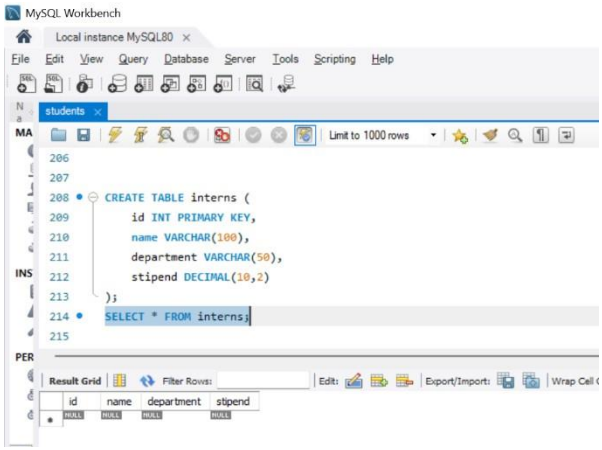

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
(5,104,900.00),
(6,102,700.25);
SELECT AVG(salary), MAX(salary), MIN(salary) FROM employees;
SELECT COUNT(*) FROM students WHERE marks > 80;
SELECT customer_id, SUM(amount) AS TotalSales FROM orders GROUP BY customer_id;
SELECT name, ROUND(salary, 2) FROM employees;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
name
ROUND(salary, 2)
Ananya 65000.75
Ravi 72000.40
Meena 84500.90
Neel 50000.00
Malayalam 93000.55
Arun 47000.25

5.

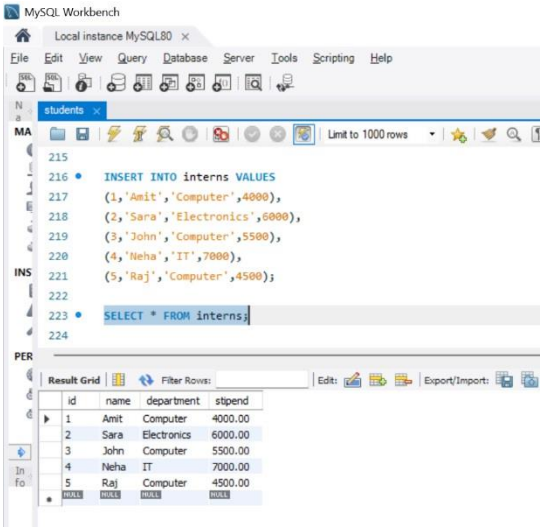

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
SELECT AVG(salary), MAX(salary), MIN(salary) FROM employees;
SELECT COUNT(*) FROM students WHERE marks > 80;
SELECT customer_id, SUM(amount) AS TotalSales FROM orders GROUP BY customer_id;
SELECT name, ROUND(salary, 2) FROM employees;
SELECT * FROM employees WHERE name = REVERSE(name);
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
id
name
salary
hire_date
5 Malayalam 93000.55 2020-11-10

Part D: DDL, DML & Constraints :

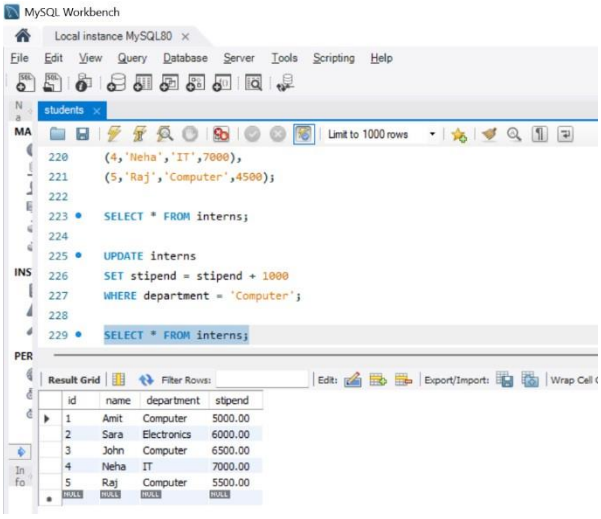
1.



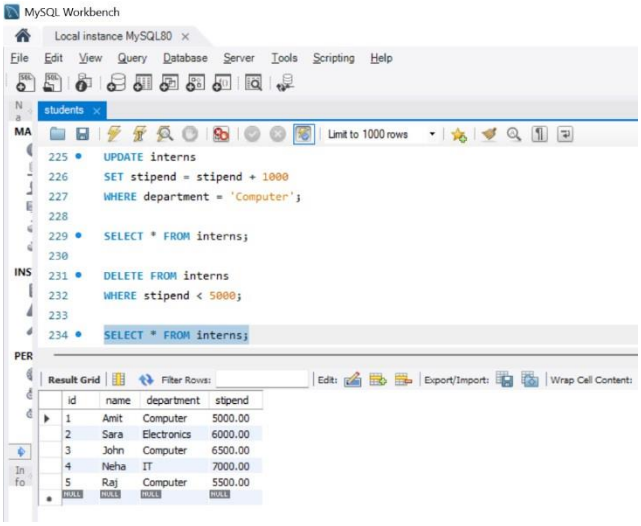
2.



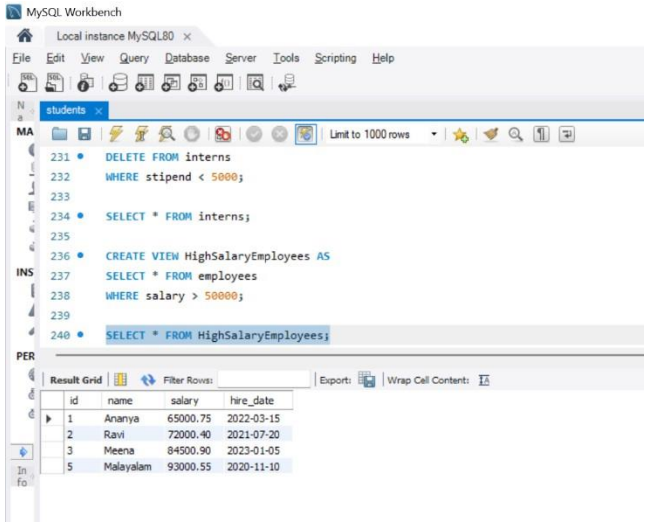
3.



4.


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
225 UPDATE interns
226 SET stipend = stipend + 1000
227 WHERE department = 'Computer';
228
229 SELECT * FROM interns;
230
231 DELETE FROM interns
232 WHERE stipend < 5000;
233
234 SELECT * FROM interns;
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
id name department stipend
1 Amit Computer 5000.00
2 Sara Electronics 6000.00
3 John Computer 6500.00
4 Neha IT 7000.00
5 Raj Computer 5500.00

5.


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
students
Limit to 1000 rows
231 DELETE FROM interns
232 WHERE stipend < 5000;
233
234 SELECT * FROM interns;
235
236 CREATE VIEW HighSalaryEmployees AS
237 SELECT * FROM employees
238 WHERE salary > 50000;
239
240 SELECT * FROM HighSalaryEmployees;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
id name salary hire_date
1 Ananya 65000.75 2022-03-15
2 Ravi 72000.40 2021-07-20
3 Meena 84500.90 2023-01-05
5 Malayalam 93000.55 2020-11-10