**Database Systems Project 1**

**Group members:**

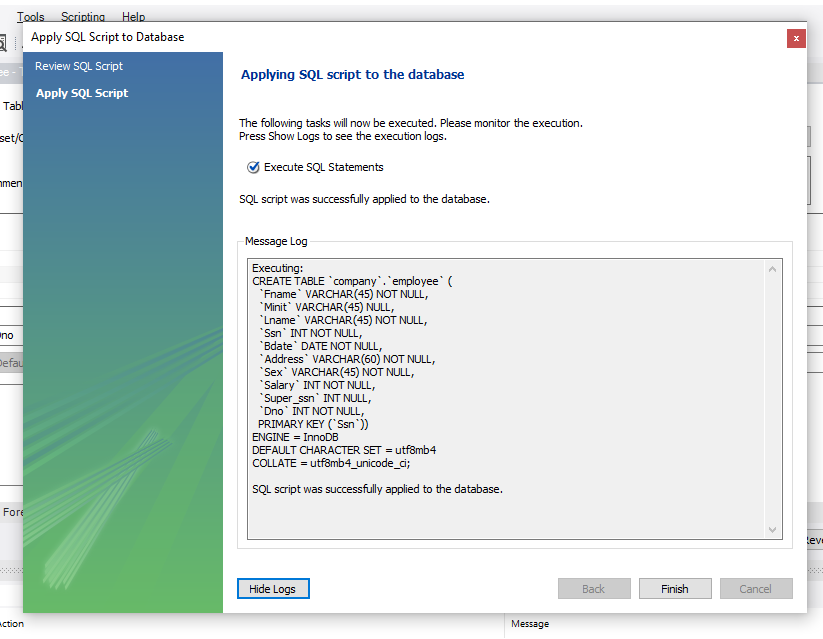
**Dhruv Patel: 1001748952**

**Nahal Maymandi: 1001785613**

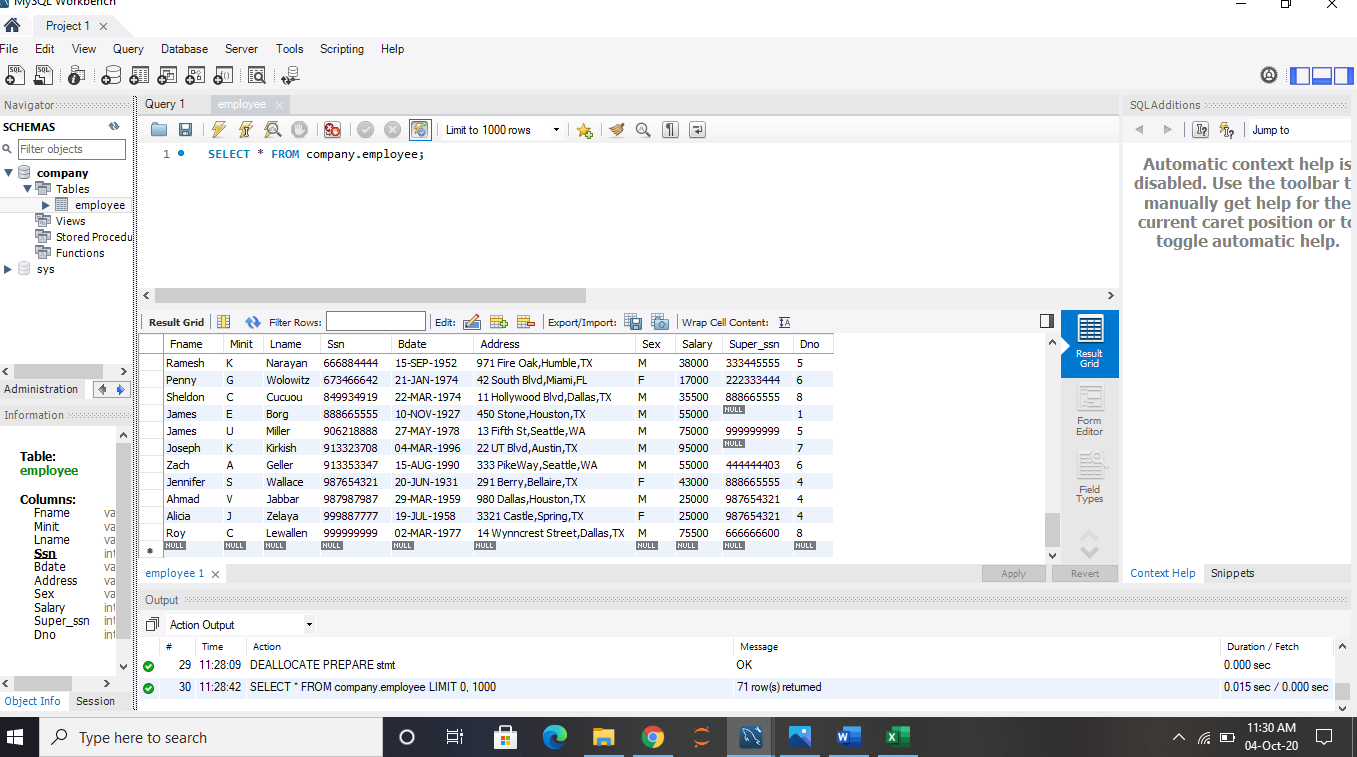
**Sudharsan Rajam: 1001874246**

**Table Creation**

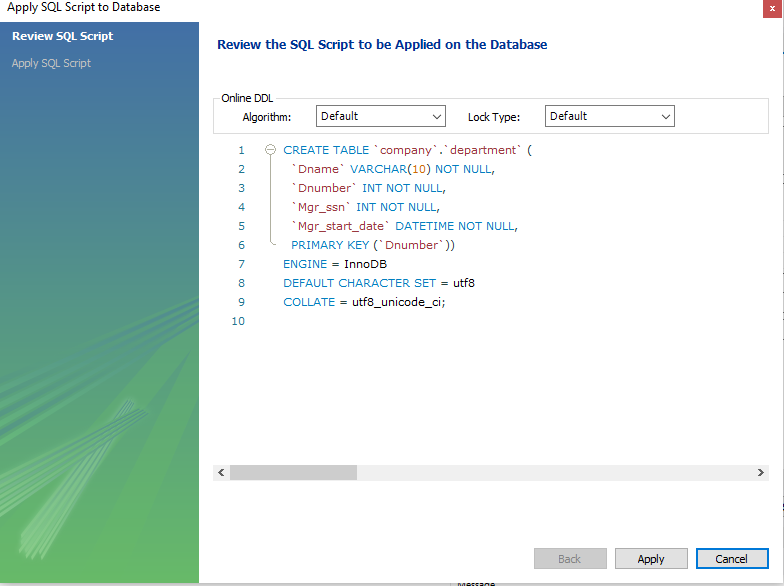
**1) Employee Table**



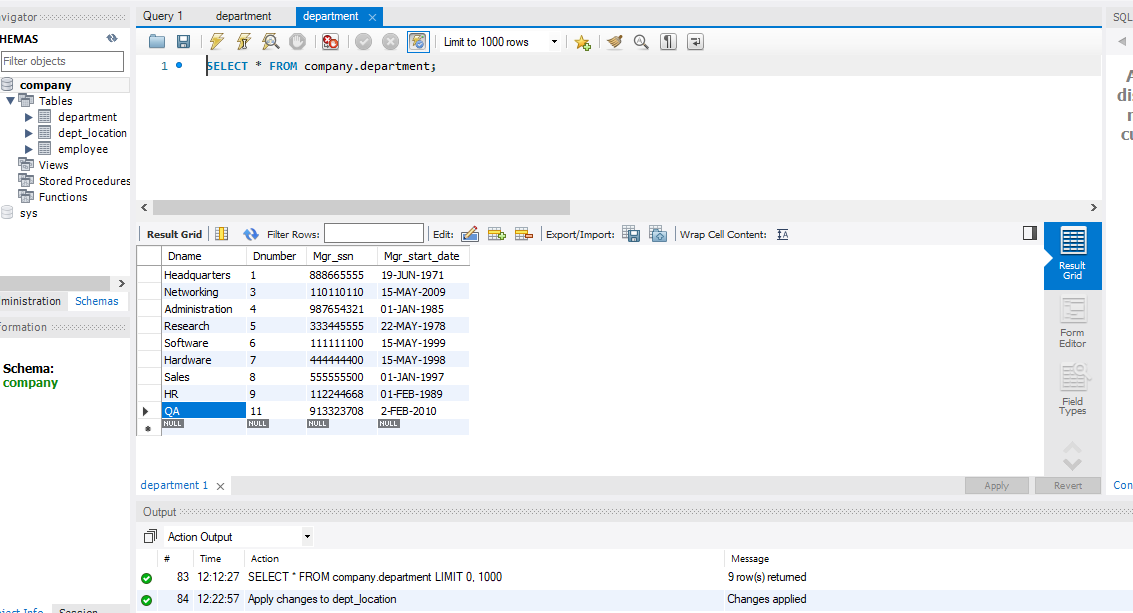
**Data Imported in Employee table**



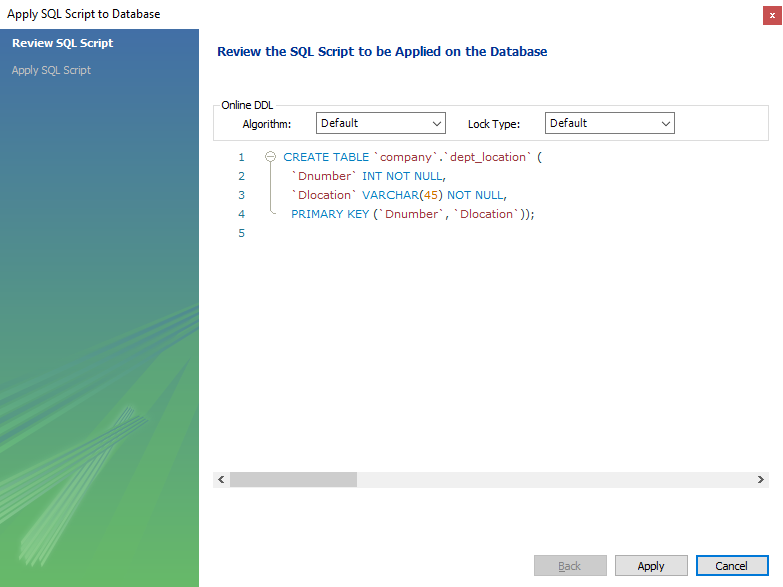
**2) Department table**



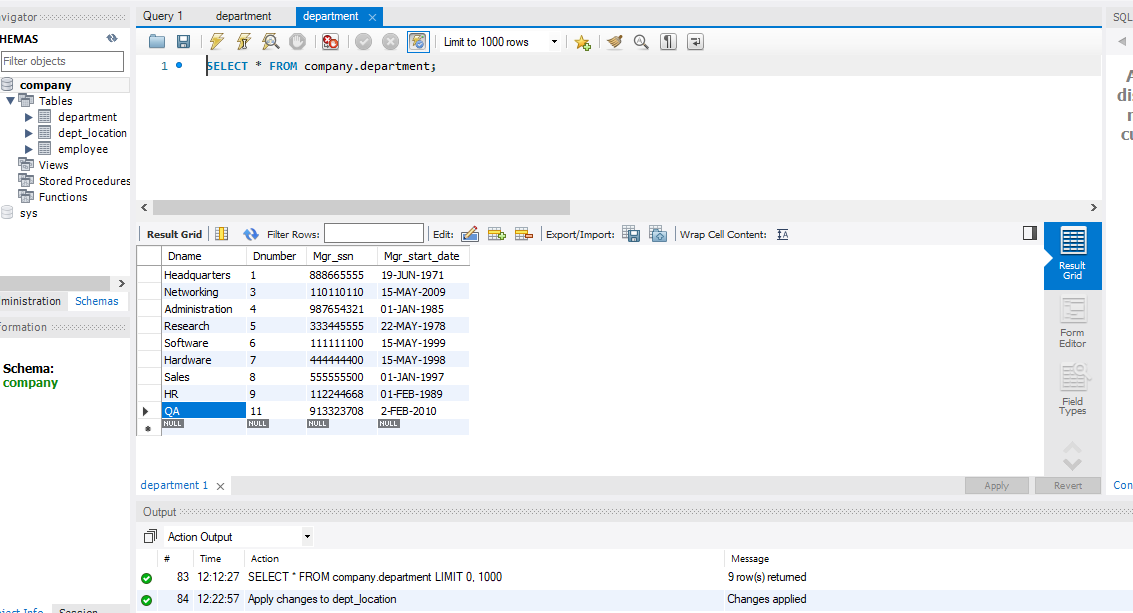
**Data Imported in Department Table:**



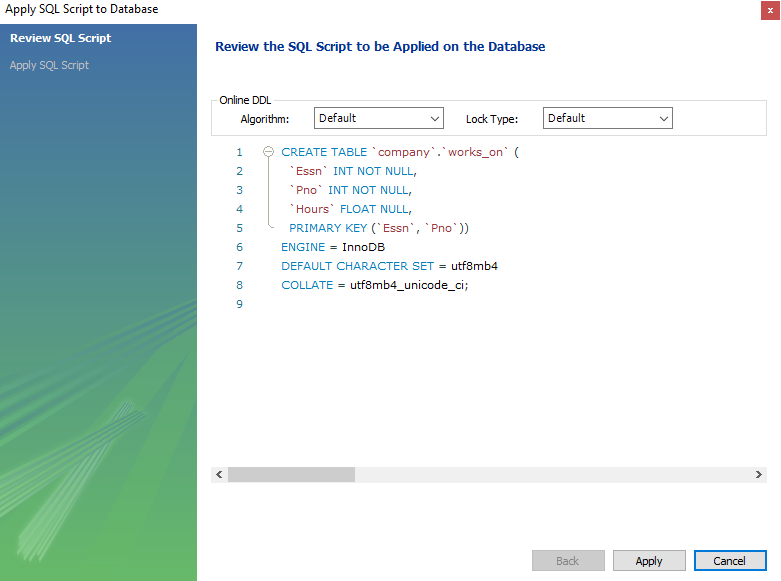
**3) Department Location**



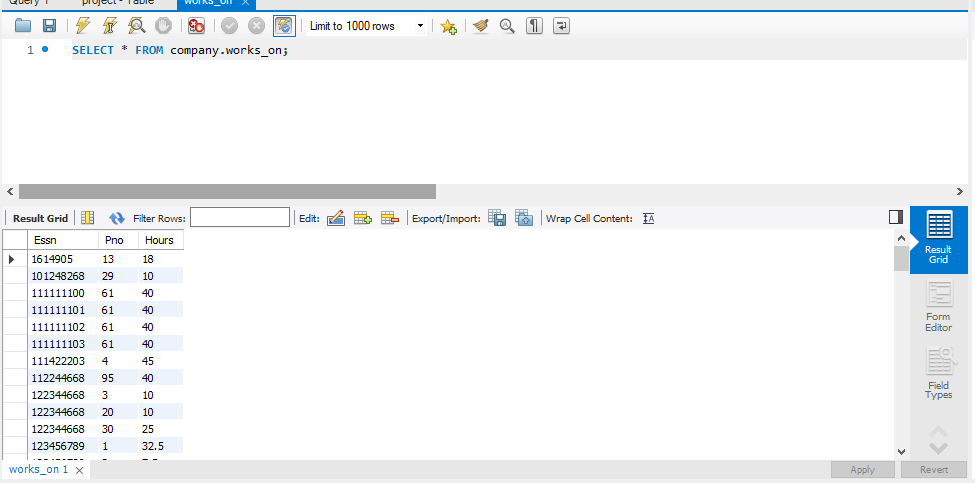
**Data Imported in Department Location**



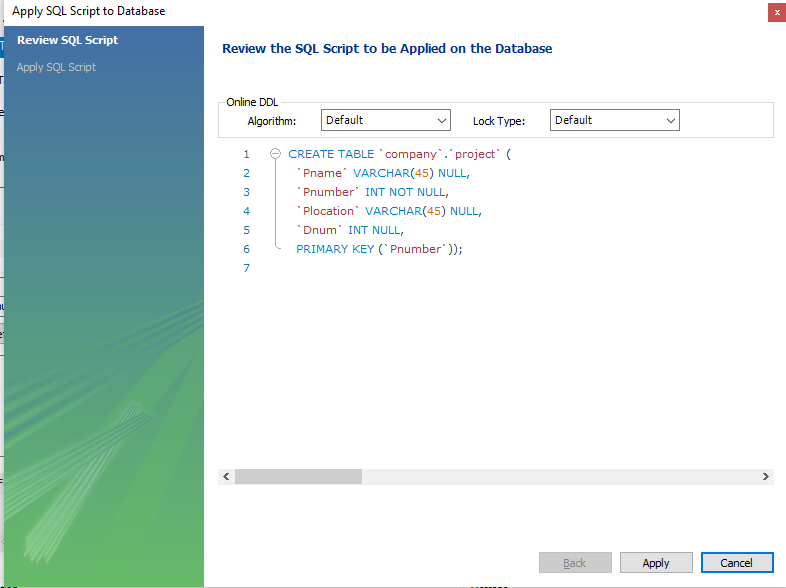
**4) Works\_on Table**



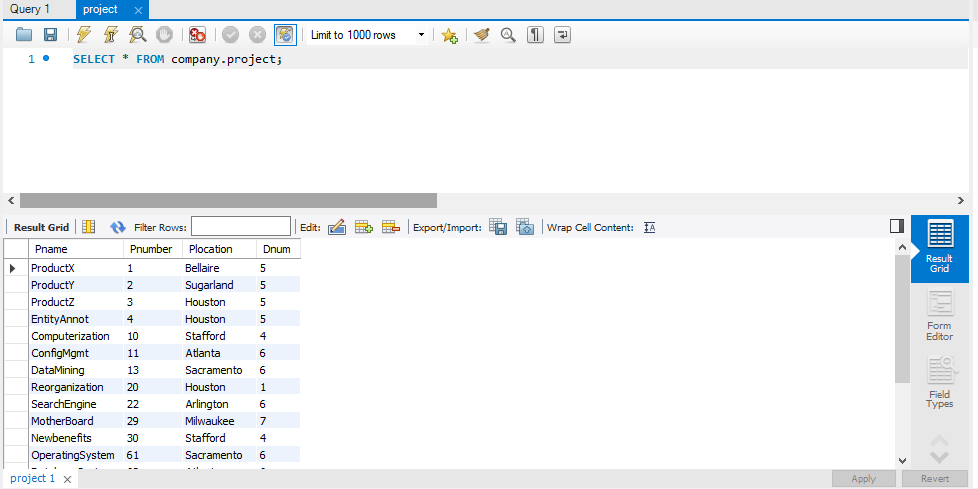
**Data Imported in works on Table**



**5) Project table:**



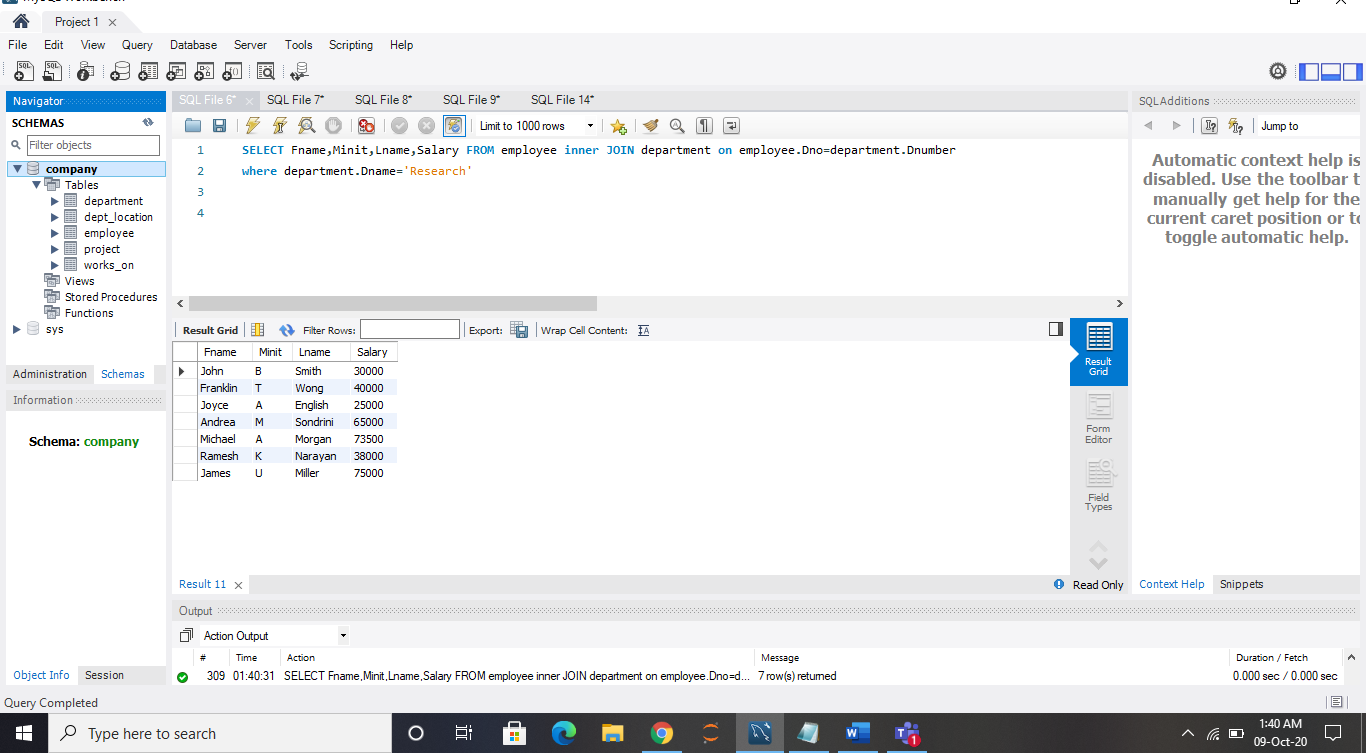
**Data Imported in Project Table:**



**SQL QUERIES PERFORMED ON THE DATABASE**

1) Enter a department name and retrieve all the names and salaries of all employees who work in that department.

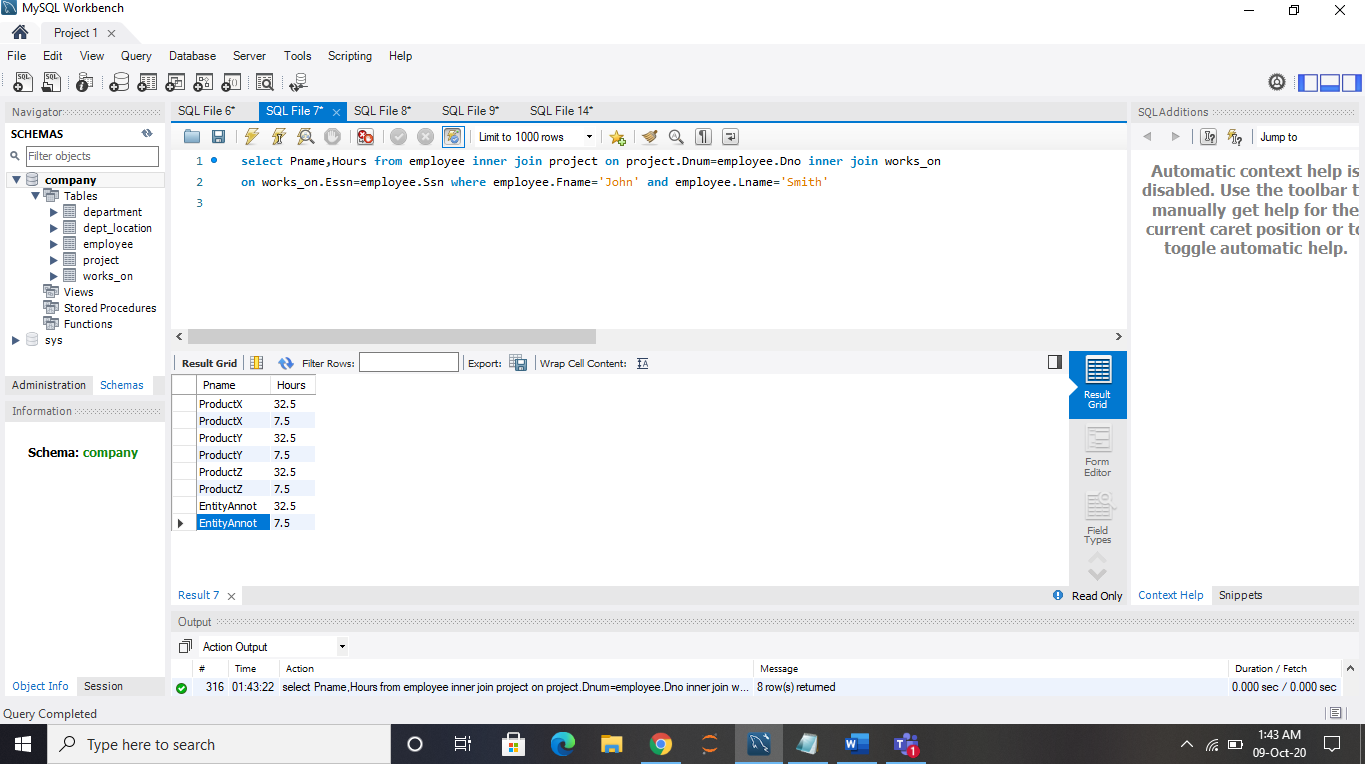
**Answer:** **SELECT** Fname,Minit,Lname,Salary **FROM** employee **inner JOIN** department **on** employee.Dno=department.Dnumber **where** department.Dname='Research'



2) Enter an employee last name and first name and retrieve a list of projects names/hours per week that the employee works on.

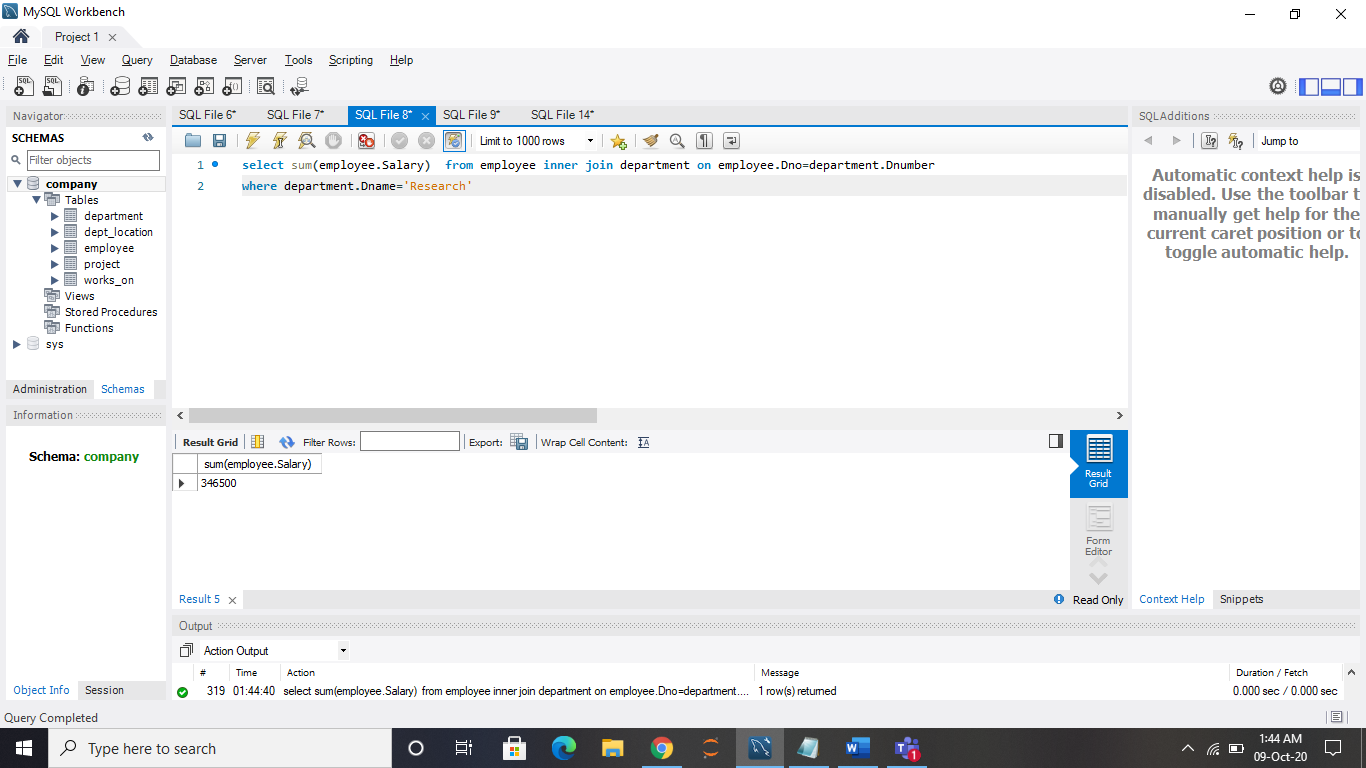
**Answer: select** Pname,Hours **from** employee **inner join** project **on** project.Dnum=employee.Dno **inner join** works\_on

**on** works\_on.Essn=employee.Ssn **where** employee.Fname='John' **and** employee.Lname='Smith'



3) Enter a department name and retrieve the total of all employee salaries who work in the department.

**Answer : select** sum(employee.Salary) **from** employee **inner join** department **on** employee.Dno=department.Dnumber **where** department.Dname='Research'



4) For each department, retrieve the department name and the number (count) of employees who work in that department. Order the result by number of employees in descending order.

**Answer : SELECT** Dname **AS** 'Department Name',

**COUNT(\*) AS** 'No of Employees'

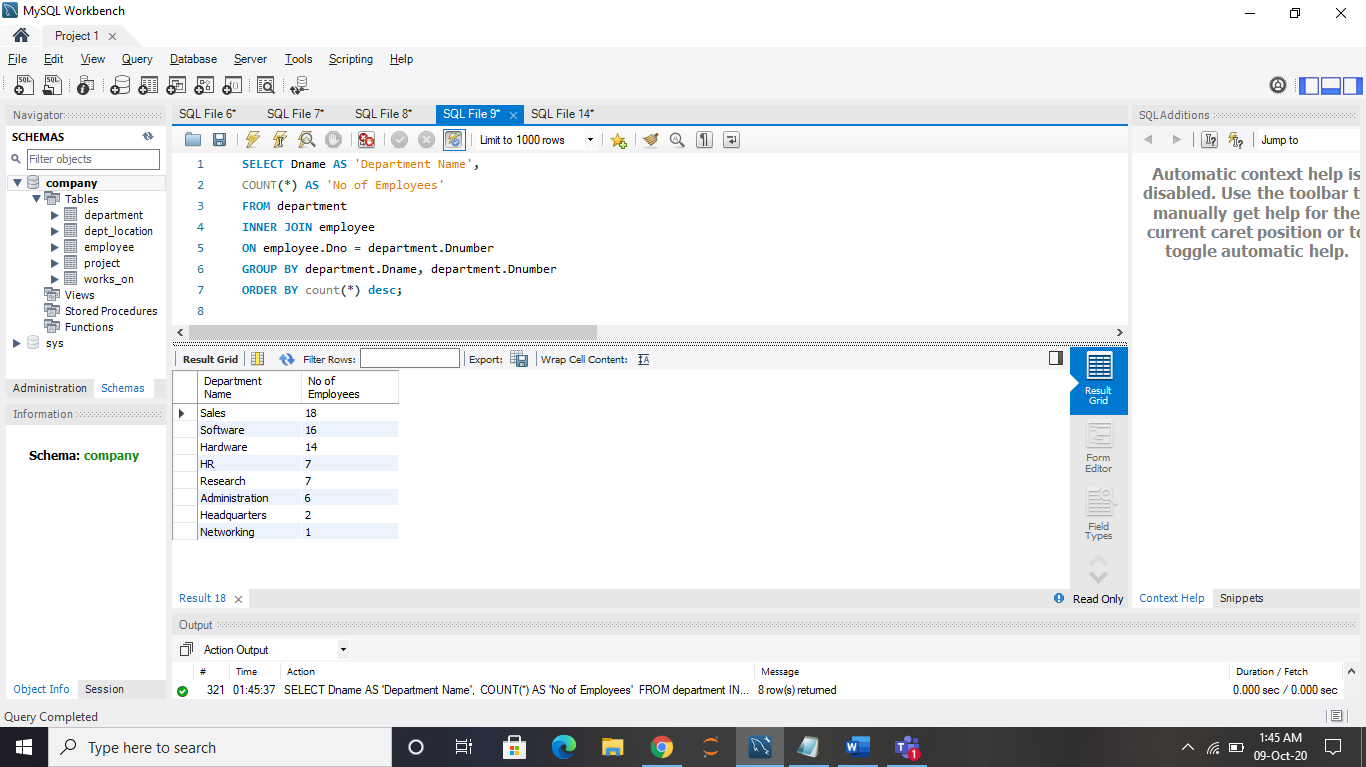
**FROM** department

**INNER JOIN** employee

**ON** employee.Dno = department.Dnumber

**GROUP BY** department.Dname, department.Dnumber

**ORDER BY count(\*)** **desc;**

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5) For each employee who is a supervisor, retrieve the employee first and last name and the number (count) of employees that are supervised. Order the result in descending order.

**Answer : SELECT** **concat**(e.Fname,' ' ,e.Lname) **AS** Supervisor\_name, m.Employees\_supervised **FROM** EMPLOYEE e

**JOIN (SELECT** Super\_ssn, **COUNT**(Super\_ssn) **as** Employees\_supervised **FROM** Employee **GROUP BY** Super\_ssn) m **ON** e.Ssn = m.Super\_ssn **ORDER BY** Employees\_supervised desc;

