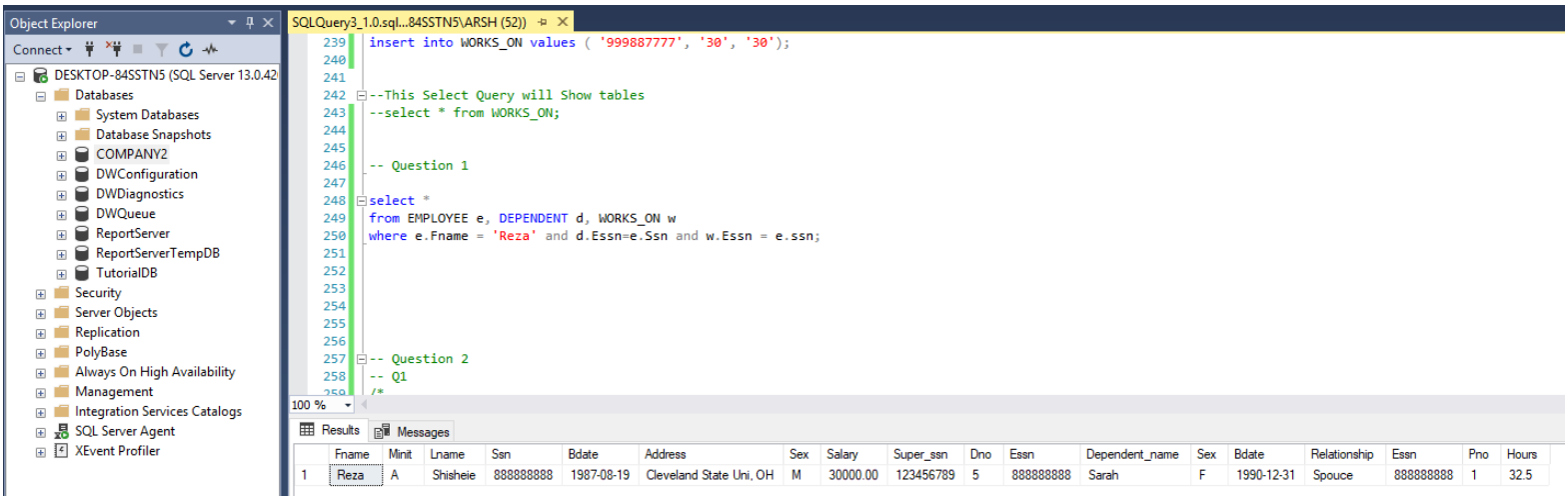
CIS530– Lab Assignment 3
Name: Reza Shisheie
ID: 2708062
Object: Querying a Relational Database COMPANY database

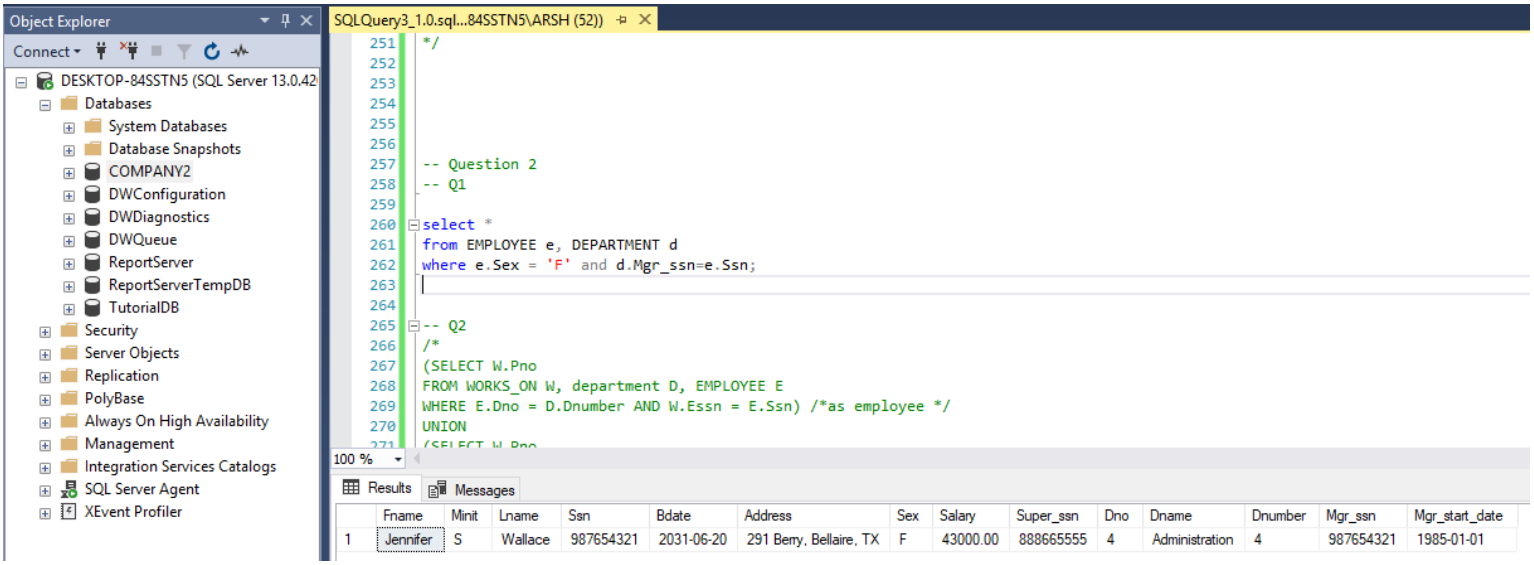
1. Add yourself into the database and Retrieve the information:

Add yourself and the related info into Employee, Dependent, and Works_On.
Retrieve all the entries you just added with only 1 Select statement.



2. Write SQL Select statements to retrieve data in the followings:

Q1: Retrieve the name and address of all the female managers.



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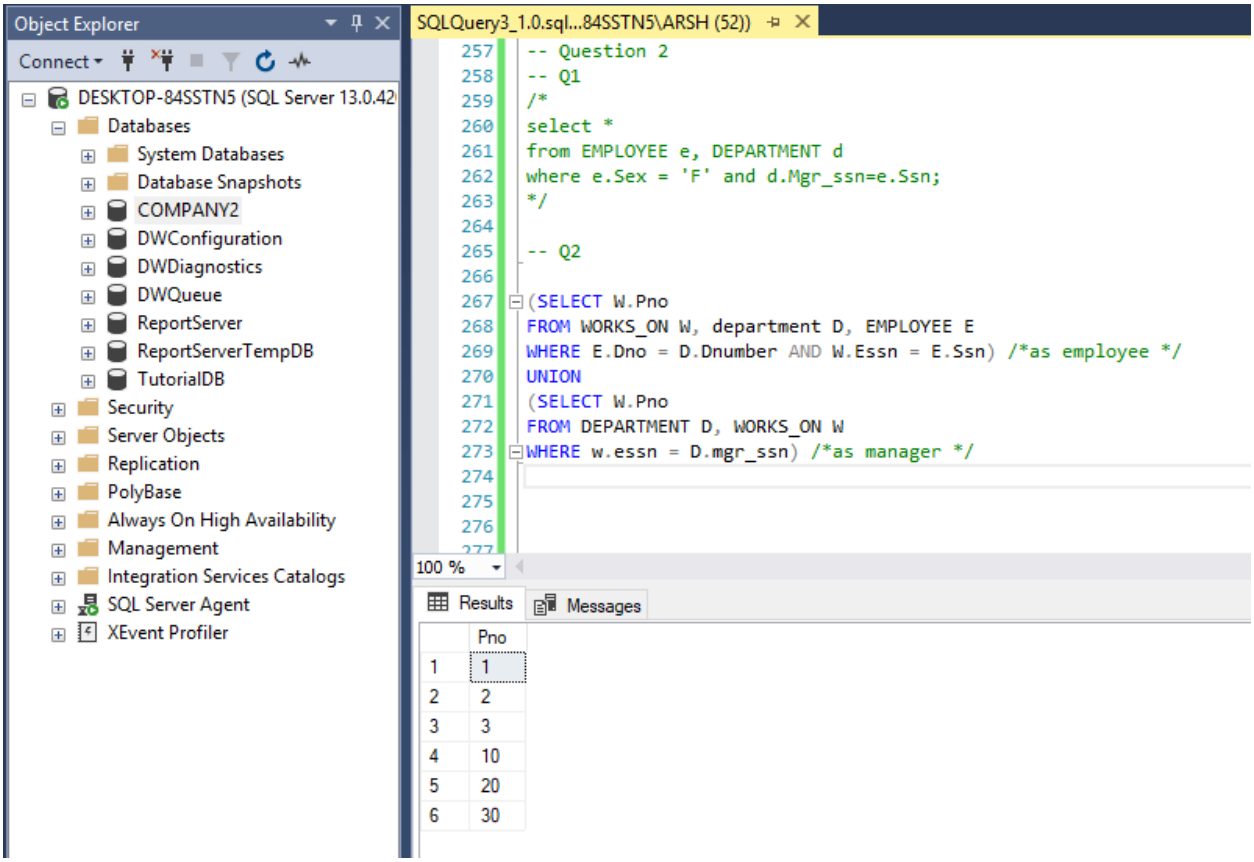
Q2: Make a list of all project numbers for projects that involve an employee whose last name is 'Smith', either as a worker or as a manager of the department that controls the project.



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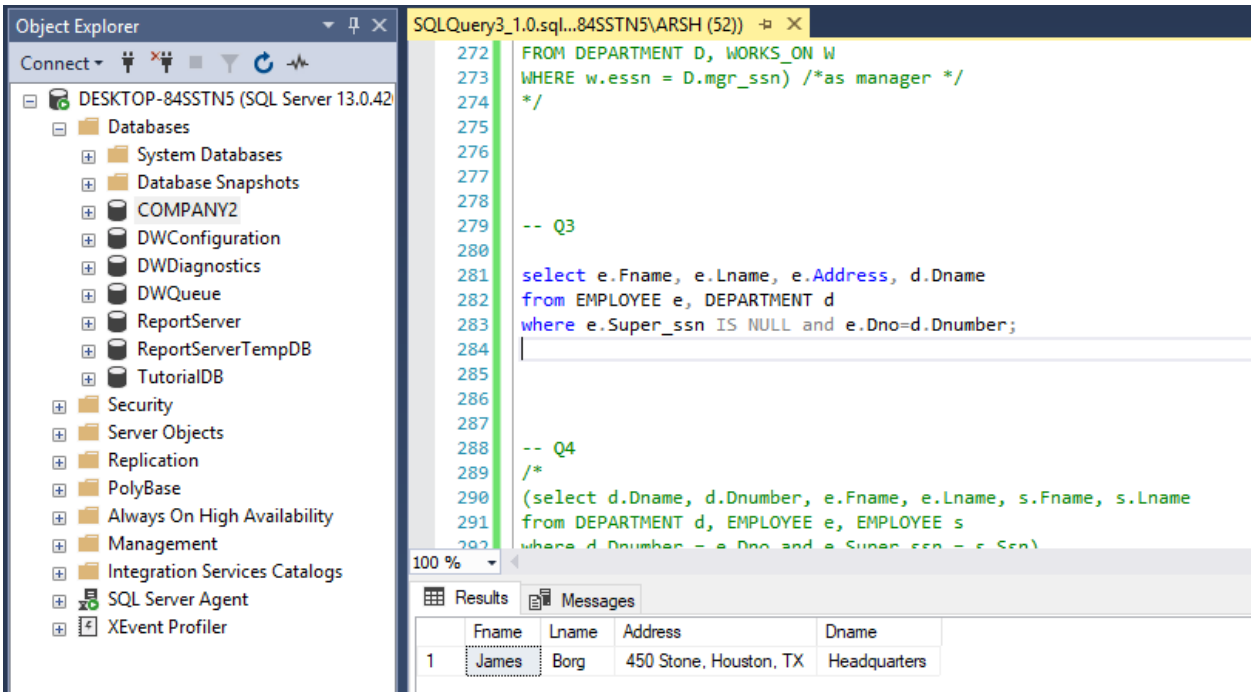
Q3: Retrieve the name and address and his/her department name of the highest ranked employee who does not report to anybody in the company.



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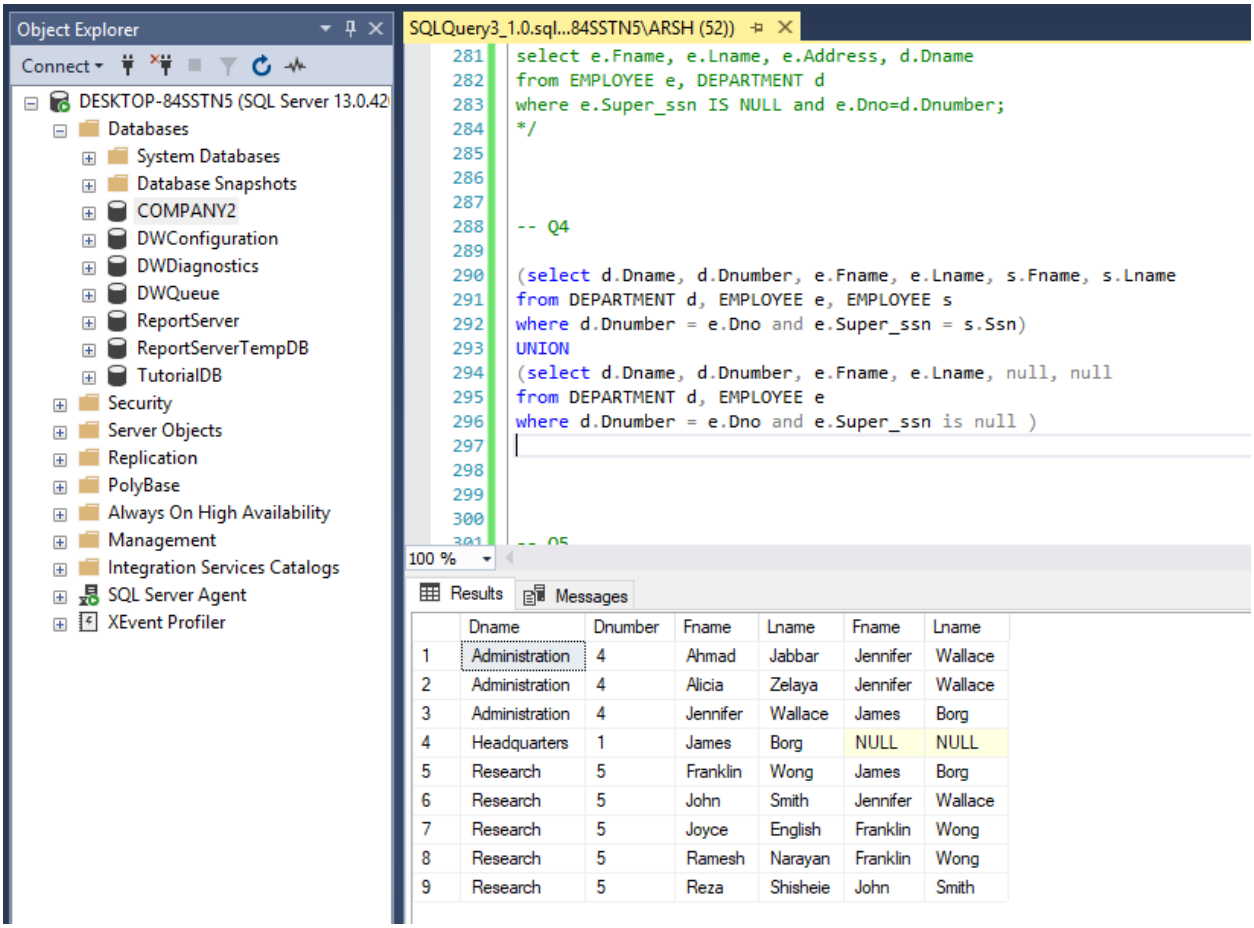
Q4:
For each department, list all the employees who are working in the department with the employee's first and last name and first and last name of his or her immediate supervisor. List the result in the order of each department number and department name.
Extra points: Include all the employees who do not have any supervisor as well in the list.



	Dname	Dnumber	Fname	Lname	Fname	Lname
1	Administration	4	Ahmad	Jabbar	Jennifer	Wallace
2	Administration	4	Alicia	Zelaya	Jennifer	Wallace
3	Administration	4	Jennifer	Wallace	James	Borg
4	Headquarters	1	James	Borg	NULL	NULL
5	Research	5	Franklin	Wong	James	Borg
6	Research	5	John	Smith	Jennifer	Wallace
7	Research	5	Joyce	English	Franklin	Wong
8	Research	5	Ramesh	Narayan	Franklin	Wong
9	Research	5	Reza	Shisheie	John	Smith

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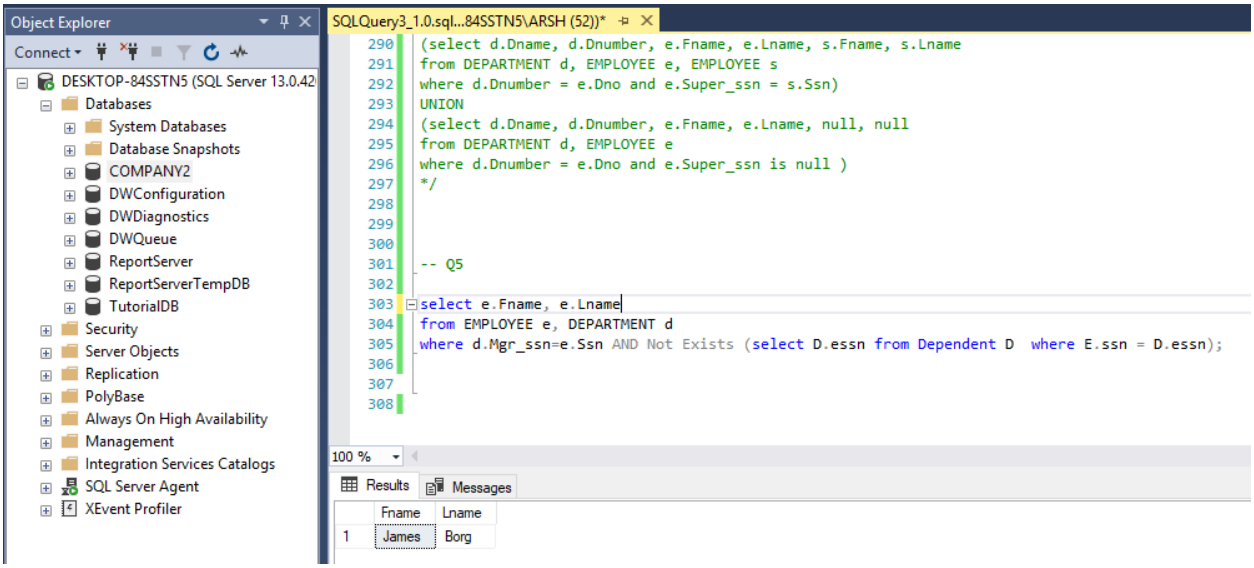
Q5: List the name of managers who have no dependents.



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Code

```sql
-- Question 1

select *
from EMPLOYEE e, DEPENDENT d, WORKS_ON w
where e.Fname = 'Reza' and d.Essn=e.Ssn and w.Essn = e.ssn;
```

```sql
-- Question 2
-- Q1

select *
from EMPLOYEE e, DEPARTMENT d
where e.Sex = 'F' and d.Mgr_ssn=e.Ssn;
```

```sql
-- Q2

(SELECT W.Pno
FROM WORKS_ON W, department D, EMPLOYEE E
WHERE E.Dno = D.Dnumber AND W.Essn = E.Ssn) /*as worker */
UNION
(SELECT W.Pno
FROM DEPARTMENT D, WORKS_ON W
WHERE w.essn = D.mgr_ssn) /*as manager */
```

```sql
-- Q3

select e.Fname, e.Lname, e.Address, d.Dname
from EMPLOYEE e, DEPARTMENT d
where e.Super_ssn IS NULL and e.Dno=d.Dnumber;
```

```sql
-- Q4

(select d.Dname, d.Dnumber, e.Fname, e.Lname, s.Fname, s.Lname
from DEPARTMENT d, EMPLOYEE e, EMPLOYEE s
where d.Dnumber = e.Dno and e.Super_ssn = s.Ssn)
UNION
(select d.Dname, d.Dnumber, e.Fname, e.Lname, null, null
from DEPARTMENT d, EMPLOYEE e
where d.Dnumber = e.Dno and e.Super_ssn is null )
```

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```
-- Q5

select e.Fname, e.Lname
from EMPLOYEE e, DEPARTMENT d
where d.Mgr_ssn=e.Ssn AND Not Exists (select D.essn from Dependent D  where E.ssn =
D.essn);
```