

# Assignment 4

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## Table

DEPARTMENT(DepartmentID, Name, OfficeAddress, DepartmentHead, OfficePhone)  
EMPLOYEE(EmployeeID, Name, Phone, Email, Address, SSN, Certification)  
AFFILIATION(EmployeeID, DepartmentID)  
ROOM(RoomNumber, Floor, RoomType, Available, RoomPhone)  
SHIFT(ShiftID, Date, StartTime, EndTime, *EmployeeID*, *RoomNumber*)  
PATIENT(PatientID, Name, Phone, Email, Address, SSN, InsuranceNumber)  
APPOINTMENT(AppointmentID, Date, StartTime, EndTime, Description, *EmployeeID*,  
*PatientID*, *RoomNumber*)

## SQL Queries: Select & Join

### Join EMPLOYEE and DEPARTMENT

```
In [ ]: select E.EmployeeID, E.Name, E.Certification, D.Name
        from EMPLOYEE as E, AFFILIATION as A, DEPARTMENT as D
        where E.EmployeeID=A.EmployeeID
        and D.DepartmentID=A.DepartmentID;

## or:
select E.EmployeeID, E.Name, E.Certification, D.Name
from EMPLOYEE as E
left join AFFILIATION A on E.EmployeeID = A.EmployeeID
left join DEPARTMENT D on A.DepartmentID = D.DepartmentID
```

Showing rows 0 - 9 (10 total, Query took 0.0067 seconds.)

```
select E.EmployeeID, E.Name, E.Certification, D.Name from EMPLOYEE as E,
AFFILIATION as A, DEPARTMENT as D where E.EmployeeID=A.EmployeeID and
D.DepartmentID=A.DepartmentID
```

EmployeeID	Name	Certification	Name
1	Sydney Heron	Certified Pediatric Nurse (CPN)	Critical care
2	Reed Adamson	AIDS Certified Registered Nurse (ACRN)	Diagnostic imaging
3	Megan Mostow	Family Nurse Practitioner	Cardiology
4	Sadie Harris	Certified Registered Nurse Anesthetist (CRNA)	Neurology
5	Heather Brooks	Advanced Oncology Certified Nurse (AOCN)	Oncology
6	Meredith Grey	Certified Pediatric Nurse (CPN)	Haematology
7	Erica Hahn	AIDS Certified Registered Nurse (ACRN)	Anaesthetics
8	Addison Montgomery	Family Nurse Practitioner	Chaplaincy
9	Arizona Robbins	Certified Registered Nurse Anesthetist (CRNA)	Microbiology
10	Amelia Shepherd	Advanced Oncology Certified Nurse (AOCN)	Accident and emergency (A&E)

## Join EMPLOYEE and ROOM and SHIFT

```
In [ ]: select E.EmployeeID, E.Name, R.RoomNumber, R.RoomType,
        S.StartTime, S.EndTime, count(*) as NumberOfShifts
from EMPLOYEE as E, ROOM as R, SHIFT as S
where E.EmployeeID=S.EmployeeID
and S.RoomNumber=R.RoomNumber
group by E.EmployeeID
order by count(*) desc;
```

Showing rows 0 - 9 (10 total, Query took 0.0121 seconds.)

```
select E.EmployeeID, E.Name, R.RoomNumber, R.RoomType, S.StartTime, S.EndTime, count()
as NumberOfShifts from EMPLOYEE as E, ROOM as R, SHIFT as S where E.EmployeeID=S.EmployeeID
and S.RoomNumber=R.RoomNumber group by E.EmployeeID order by count() desc
```

EmployeeID	Name	RoomNumber	RoomType	StartTime	EndTime	NumberOfShifts
7	Erica Hahn	1	Surgery	09:30:00	15:40:00	3
3	Megan Mostow	4	ER	10:00:00	17:00:00	3
5	Heather Brooks	2	Consulting	09:45:00	18:30:00	2
2	Reed Adamson	1	Surgery	09:00:00	15:00:00	2
10	Amelia Shepherd	8	Operating Room	10:10:00	18:50:00	2
4	Sadie Harris	10	A&E	09:00:00	17:00:00	2
9	Arizona Robbins	7	Nursery	09:00:00	16:40:00	2
6	Meredith Grey	3	Dispensary	10:00:00	17:10:00	2
8	Addison Montgomery	9	High Dependency Unit	08:00:00	15:45:00	1
1	Sydney Heron	3	Dispensary	09:00:00	18:00:00	1

## Join EMPLOYEE and ROOM and PATIENT

```
In [ ]: select R.RoomType, E.Name as EmployeeInCharge,
        E.Certification, P.Name as PatientName, A.Description
from EMPLOYEE as E, ROOM as R, PATIENT as P, APPOINTMENT as A
where A.EmployeeID=E.EmployeeID
```

```
and A.RoomNumber=R.RoomNumber
and A.PatientID=P.PatientID;
```

Showing rows 0 - 4 (5 total, Query took 0.0094 seconds.)

select R.RoomType, E.Name as EmployeeInCharge, E.Certification, P.Name as PatientName, A.Description from EMPLOYEE as E , ROOM as R , PATIENT as P, APPOINTMENT as A where A.EmployeeID=E.EmployeeID and A.RoomNumber=R.RoomNumber and A.PatientID=P.PatientID

RoomType	EmployeeInCharge	Certification	PatientName	Description
Consulting	Megan Mostow	Family Nurse Practitioner	Joan Romero	Constitutional - NAD, has been generally feel...
ICU	Sydney Heron	Certified Pediatric Nurse (CPN)	Melvin Porter	Cardiovascular: dyspnea on exertion; denies c...
Dispensary	Reed Adamson	AIDS Certified Registered Nurse (ACRN)	Davis Patrick	Constitutional: Intermittent chills with decr...
Surgery	Sadie Harris	Certified Registered Nurse Anesthetist (CRNA)	Aaron Hawkins	Constitutional: denies anorexia and weight lo...
High Dependency Unit	Heather Brooks	Advanced Oncology Certified Nurse (AOCN)	Lawrence Moreno	Cardiovascular - denies chest pain; denies pa...

## Join ROOM and EMPLOYEE and DEPARTMENT and APPOINTMENT and PATIENT

```
In [ ]: select E.Name as EmployeeInCharge, E.Certification,
          D.Name as Department, P.Name as PatientName,
          R.RoomType, A.StartTime as AppointmentStartTime,
          A.EndTime as AppointmentEndTime
from EMPLOYEE as E , APPOINTMENT as A , DEPARTMENT as D ,
      ROOM as R, AFFILIATION as A2, PATIENT as P
where E.EmployeeID=A.EmployeeID
and E.EmployeeID=A2.EmployeeID
and A2.DepartmentID=D.DepartmentID
and A.RoomNumber=R.RoomNumber
and A.PatientID=P.PatientID;
```

Showing rows 0 - 4 (5 total, Query took 0.0131 seconds.)

select E.Name as EmployeeInCharge, E.Certification, D.Name as Department, P.Name as PatientName, R.RoomType, A.StartTime as AppointmentStartTime, A.EndTime as AppointmentEndTime from EMPLOYEE as E , APPOINTMENT as A , DEPARTMENT as D , ROOM as R, AFFILIATION as A2, PATIENT as P where E.EmployeeID=A.EmployeeID and E.EmployeeID=A2.EmployeeID and A2.DepartmentID=D.DepartmentID and A.RoomNumber=R.RoomNumber and A.PatientID=P.PatientID

EmployeeInCharge	Certification	Department	PatientName	RoomType	AppointmentStartTime	AppointmentEndTime
Megan Mostow	Family Nurse Practitioner	Cardiology	Joan Romero	Consulting	14:00:00	15:00:00
Sydney Heron	Certified Pediatric Nurse (CPN)	Critical care	Melvin Porter	ICU	10:00:00	12:00:00
Reed Adamson	AIDS Certified Registered Nurse (ACRN)	Diagnostic imaging	Davis Patrick	Dispensary	16:00:00	17:30:00
Sadie Harris	Certified Registered Nurse Anesthetist (CRNA)	Neurology	Aaron Hawkins	Surgery	09:30:00	14:15:00
Heather Brooks	Advanced Oncology Certified Nurse (AOCN)	Oncology	Lawrence Moreno	High Dependency Unit	14:45:00	15:30:00