

Inventory Database

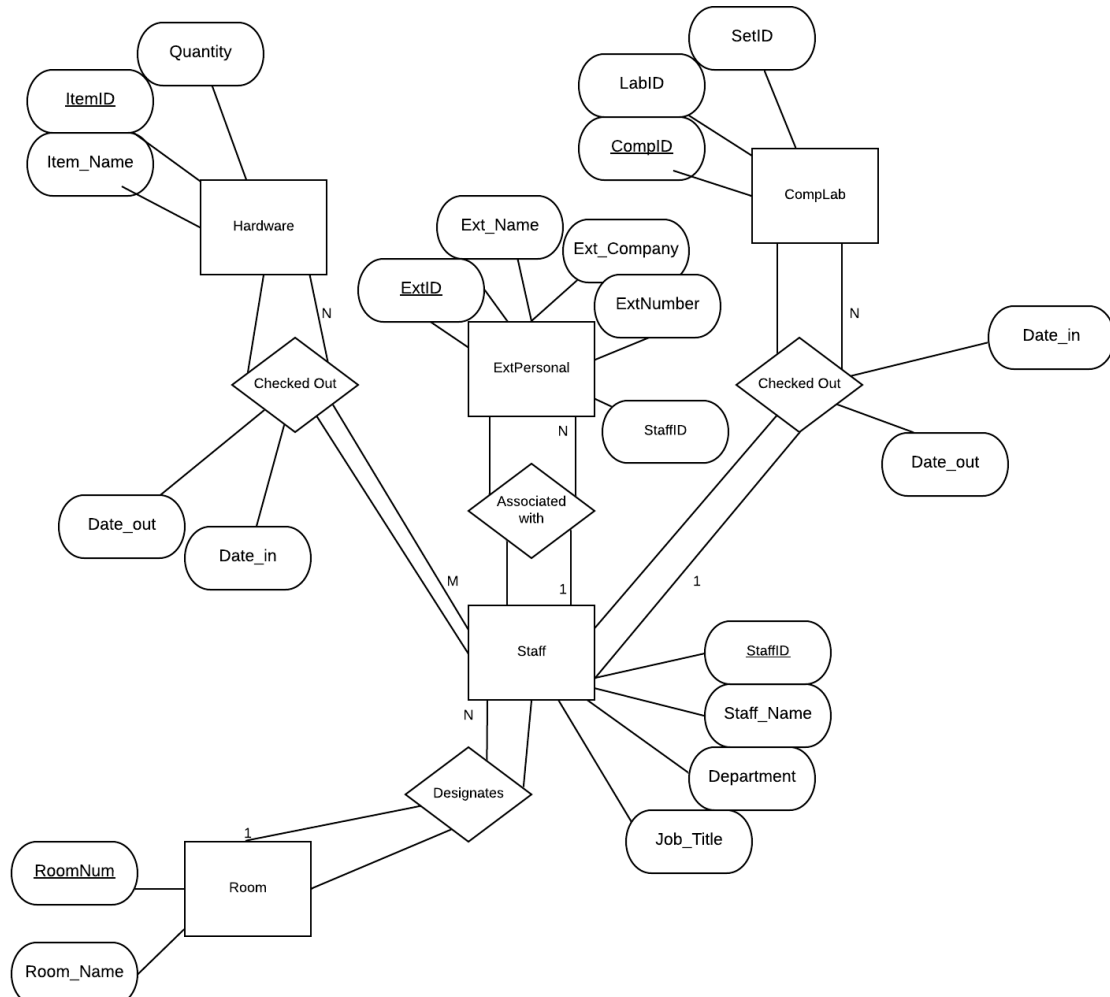
This database is based on the inventory system at my job. It's a collection of hardware and sets of computers called labs. Both of these items can be checked out by people who are staff, and external people who are affiliated with staff. If someone outside of staff checks out an item, it is also the affiliated staff member's responsibility to check said item back into the system. Also, there are rooms that the computer labs can be designated to while checked out.

In my design of this database, I created five main tables. There is a separate table for "Hardware", "CompLab", "Staff", "ExtPersonal" and "Room". In each table, it has five or more tuples.

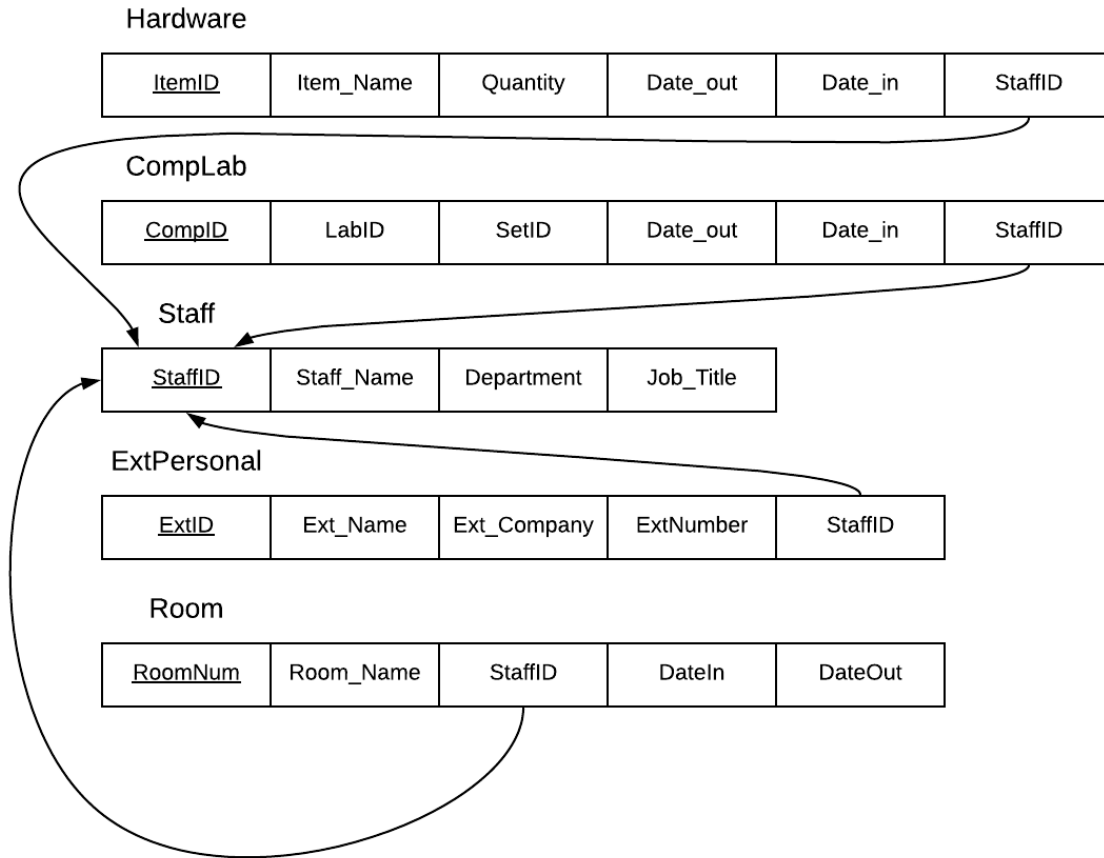
- **Hardware** table includes: Item_Name, ItemID, Quantity, Date_out, and Date_in, StaffID
- **CompLab** table includes: CompID, LabID, SetID, Date_out, Date_in, StaffID
- **Staff** table includes: StaffID, Staff_Name, Department, Job_Title
- **ExtPersonal** table includes: ExtID, Ext_Name, Ext_Company, ExtNumber, StaffID
- **Room** table includes: RoomNum, Room_Name, StaffID, DateIn, DateOut

I connected all of the tables mostly through staff. This database works through checking items out, so a staff member will be tied to all of them. Hardware has a primary key of Item_Name, and a foreign key of StaffID. CompLab has a primary key of CompID, and a foreign key of StaffID. Staff has a primary key of StaffID. ExtPersonal has a primary key of ExtID, and a foreign key of StaffID since a staff member has to be affiliated for them to check it out. Room has a primary key of RoomNum, and a foreign key of StaffID since the staff will designate where equipment will go.

ERD



Relation Schema



Implementing the Database

```
drop table Hardware cascade constraints;  
create table Hardware(  

```

```
ItemID number(5),  
Item_Name varchar2(20),  
Quantity number(4),  
Date_Out varchar2(15),  
Date_In varchar2(15),  
StaffID number(3),  
primary key (ItemID),  
foreign key (StaffID) references Staff);
```

```
drop table CompLab cascade constraints;  
create table CompLab(  

```

```
CompID number(5),  
LabID number(5),  
SetID number(5),  
Date_Out varchar2(15),  
Date_In varchar2(15),  
StaffID number(3),  
primary key (CompID),  
foreign key (StaffID) references Staff);
```

```
drop table Staff cascade constraints;  
create table Staff(  

```

```
StaffID number(5),  
Staff_Name varchar2(15),  
Department varchar2(3),  
Job_Title varchar2(15),  
primary key (StaffID);
```

```
drop table ExtPersonal cascade constraints;  
create table ExtPersonal(  

```

```
ExtID number(5),  
Ext_Name varchar2(15),
```

```
Ext_Company varchar2(15),
ExtNumber number(2),
StaffID number(5),
primary key (ExtID),
foreign key (StaffID) references Staff);
```

```
drop table Room cascade constraints;
create table Room(
```

```
RoomNum number(2),
Room_Name varchar2(15),
Date_Out varchar2(15),
Date_In varchar2(15),
StaffID number(5),
primary key (RoomNum),
foreign key (StaffID) references Staff);
```

```
Insert into Hardware values('00001','Camera','1','01-02-2020','19-02-2020','001');
Insert into Hardware values('00002','Headphones','1','01-02-2020','19-02-2020','002');
Insert into Hardware values('00003','SDCardReader','1','01-02-2020','19-02-2020','003');
Insert into Hardware values('00004','Microphone','1','01-02-2020','19-02-2020','004');
Insert into Hardware values('00005','Mouse','1','01-02-2020','19-02-2020','005');
```

```
Insert into CompLab values('00001','00001','00001','01-02-2020','19-02-2020','001');
Insert into CompLab values('00002','00001','00001','01-02-2020','19-02-2020','002');
Insert into CompLab values('00003','00001','00001','01-02-2020','19-02-2020','003');
Insert into CompLab values('00004','00001','00001','01-02-2020','19-02-2020','004');
Insert into CompLab values('00005','00001','00001','01-02-2020','19-02-2020','005');
```

```
Insert into Staff values('001','Jerry','SSS','Site Support');
Insert into Staff values('002','Lani','CMM','Communications');
Insert into Staff values('003','Reuben','TSG','IT');
Insert into Staff values('004','Pam','ACT','Procurement');
Insert into Staff values('005','Melanie','HRR','Human Resources');
```

```
Insert into ExtPersonal values('00001','Malcolm','ESRI','01','001');
Insert into ExtPersonal values('00002','Matt','WEST','02','002');
```

```
Insert into Room values('01','Explore','01-02-2020','19-02-2020','001');
Insert into Room values('02','Discover','01-02-2020','19-02-2020','003');
```