**Extended Problem statement:**To develop a functioning HR database system for a grocery store corporation using SQL databases.

Our topic for the group project is a human resource management system. This system, built with a front-end interface, will utilize SQL as the database. From this a company would be able to create departments as tables, and would allow employees to be placed into departments. From this the interface would allow the data entered to be manipulated and updated. Once the table is updated it can be viewed and ordered based on the parameters the user would choose. A business Constraint for this system is that it must be used electronically, and via a web browser which is where the user face will allow them to interact with the SQL database. The tables will be queried by starting at the bottom, using the key attribute of store ID, which would allow the tables to be searched through the weak entity types “departments” and “positions “ which allow the employees to be found when searched.

**Entity Types:**

**Employee**-The workers that make up the company. In relation to other entity types every employee will have a position. Every position will belong to a department. Every Department will be located and make up the store entity. There is partial participation between the employee entity type and the Position weak entity type. Every employee has a position, but not every position has an employee. The attributes of the Employee entity type will be

* Name
* SSN-KEY ATTRIBUTE
* Phone number(Contact Number,Emergency Contact)
* Employee ID-KEY ATTRIBUTE
* Address
* Work Time
* Overtime Pay
* Hiring Date
* Active
* Tax Type
* Payment method

**Departments(Weak Entity)**- The department where the employees of the company work. Each employee has a position. Every position belongs to a department, which exists within a store. There is not a total participation relationship between employee and department because while every employee will have a position, not every position will have an employee. There is total participation between the weak entities of Departments and positions. That is because every position is made up of departments, and every department is made up of positions.The Departments entity type will be a weak entity because there is no distinguishable attribute to be used as a key attribute.The attributes for this position are

* Department name
* Budget of Program
* Total amount of positions
* Total amount of Supervisors
* Positions list(Position titles,numerical total)
* Supervisors list(Supervisor names, numerical total)

**Positions(Weak Entity)**- What the employee does for the company. Each employee has a position, and each position belongs in a department. Each department is in a store. There is also total participation between the weak entity type Positions and the entity type of Stores since every Store has positions, and every position belongs in a store. This is a weak entity as it does not have a distinguishable key attribute.The attributes for the Position entity type are

* Position Name
* Job Type(fulltime/partime, offers overtime)
* Supervisor
* Department Head
* Postion status

**Salary(Weak Entity)**- What each position compensates each employee. There is total participation between the Positions weak entity and the Salary weak entity as each position will have a salary, and every salary will come with a position. The attributes for the Salary entity type will be

* Hourly rate
* Time Worked
* Bonus

**Store**-The store where each employee,position, and department, are located. There is total participation between the store and the department entity. The repeat budget attribute invokes the total of the budget given by the department, and the total budget of the department relies on the budget of the store.The attributes of the Store entity type will be

* Zip Code
* Store ID-KEY ATTRIBUTE
* Budget