*Company*

**Company(CompanyID,** CompanyName, CEO, GDP**)**

**CompanyOfficeDetails (OfficeDetailsID**, CompanyID, ZoneID, OfficeName, OfficeStreetAddress, OfficeCountry, OfficeStartHour, OfficeCloseHour, OfficePhone, OfficeTransportationBudget**)**

**Department (DepartmentID**, CompanyID, DepartmentName, DepartmentManager)

**Shift (ShiftID,** ShiftName, ShiftStartHour, ShiftEndHour**)**

*Employee*

**Employee (EmployeeID,** CompanyID, EmployeeName, EmployeeAge, EmployeeGrade, Gender, ShiftID, DepartmentID**)**

**EmployeeChildInfo(ChildID,** EmployeeID, ChildName, ChildAge, ChildSchoolName, ChildGrade, ChildTransportationToSchool)

**EmployeeDNAInfo(EmployeeDNAID,** EmployeeID, Nationality, DNASequence, bGeneticallyModified, bClone, TelomereLength)

**EmployeeEducationInfo (EmployeeEducationID,** EmployeeID, EmployeeIQ, HighestGradeCompleted, HighestDegreeObtained, NumberOfDegrees)

**EmployeeHealthInfo (EmployeeHealthID,** EmployeeID, HealthInsuranceProvider, MonthlyPremiumAmount, PastAilments, RiskLevel, BloodType, bSmoker)

**EmployeeHomeComputerDetails (EmployeeComputerID**, EmployeeID, OperatingSystem, CPU, RAM, HardDiskSpace, SoftwareInstalled**)**

**EmployeeHouseholdDetails (EmployeeHouseholdID,** EmployeeID, StreetAddress, State, City, ZipCode, bMarried, SpouseName, CarCount, HouseholdIncome, TaxBracket)

**EmployeeNeighborInfo (NeighborID,** EmployeeID, NeighborName, NeighborStreetAddress, bNeighborMarried, NeighborCompanyName)

**EmployeeTravelInfo (EmployeeTravelID,** EmployeeID, ZoneID, TravelPurpose, TimeSpentInZone, bEnjoyed)

**EmployeeWorkComputerDetails (WorkComputerID,** EmployeeID, OperatingSystem, CPU, RAM, HardDiskSpace, SoftwareInstalled**)**

**HealthProviders** **(HealthProviderID**, EmployeeID, HealthProviderName, HealthProviderRank**)**

V*ehicle*

**Vehicle (VehicleID,** VehicleTypeID, VehicleName, VehicleCapacity, VehicleManufacturer, VehicleModel, VehicleYear**)**

**VehicleFareDetails (VehicleFareID,** VehicleTypeID, PricePerZone, NumberZonesBeforeElevated, ElevatedPricePerZone**)**

**VehicleProviders (ProviderID,** ZoneID, ProviderName, ProviderGDP, ProviderStreetAddress**)**

**VehicleTypeDetails ( VehicleTypeID**, VehicleTypeName)

***ZONEZ***

**Zone (ZoneID,** CityState, CityName, ZipCode, CityCountry, CityRank, CityPopulation, CityTraffic**)**

**Company Identifier**

- CompanyID (primary key)

- CompanyName

- CompanyAddress

- ZoneID (this is the source zone id)

**Employee Identifier (NoSQL)**

- EmployeeID (primary key)

- CompanyID (foreign key of company identifier)

- EmployeeName

- EmployeeAge

- EmployeeGrade

- Gender

- ShiftID (foreign key)

- DepartmentID (foreign key)

- EmployeeAddress

- EmployeeZone (this is the destination zone id)

**Shift**

-ShiftID (0, 1, 2)

-ShiftName (morning, day, night)

**Department**

- DepartmentID (primary key)

- DepartmentName

- CompanyID (foreign key)

**Vehicle**

- VehicleTypeID (foreign key)

- VehicleName

- Description

- VehicleID (primary key)

- Capacity

**VehicleTypeDetails**

- VehicleTypeID (foreign key)

- VehicleTypeName (bus, cab, motorcycle)

**VehicleFareDetails**

- VehicleTypeID (foreign key) (could also be primary key for this table)

- Price for Zone1

- Price for Zone2

- Price for Zone3

- Price for Zone4

- Price for Zone...n

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**EmployeeComputerDetails**

- EmployeeID (foreign key)

- Operating System

- CPU

- RAM

- Hard Drive space

- SoftwareInstalled

- BetterPCThanWorkPC? (boolean, sometimes employees home computers are faster than work)

**WorkComputerDetails**

- CompanyID (foreign key)

- Operating System

- CPU

- RAM

- Hard Drive space

- SoftwareInstalled (if this matches an employee’s home PC software then maybe they can work from home)

The idea behind these two tables is that we can add another scenario to our project. If transporting one zone to work is too costly, then we can compare the computers in the employee’s houses with the computer’s at their work. If the computers match up they can work from home and save money by transporting only those who cannot work from home. We could also send back messages saying “Hey, this guy has a great computer but needs licenses for such and such software in order to work. Maybe if we buy these licenses we can save money by not transporting them a couple of day a week.

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**EmployeeHouseholdDetails**

- EmployeeID (foreign key)

- Address

- Married?

- ChildCount

- SpouseName

- ChildrenNames

- CarCount

- HouseholdIncome

- TaxBracket

**CompanyOfficeDetails**

- CompanyID (foreign key)

- CompanyName

- OfficeName (i.e., H.R., Billing, Chicago Location, Shaumburg Location, etc)

- CityID (foreign key)

- StreetAddress

- Country

- Hours

- PhoneNumber

- TransportationBudget

- Zone

**EmployeeHealthInfo**

- EmployeeID (foreign key)

- HealthInsuranceProvider

- MonthlyPremiumAmount

- PastAilments

- RiskLevel

- Smoker?

**EmployeeChildrenInformation**

- EmployeeID (foreign key)

- ChildName

- ChildID

- ChildAge

- ChildSchoolName

- ChildGrade

- ChildTransportationToSchool (0 = walk, 1 = bus, 2 = rideFromParents)

*We could use this to determine if an employee should just drive to work because they take kids to school every morning anyways*

**EmployeeNeighborInformation**

- EmployeeID (foreign key)

- NeighborName

- NeighborID (primary key)

- NeighborStreetAddress

- NeighborCompanyID (foreign key to Company table if they work at one of our clients)

- NeighborCompanyName (if they dont work at one of our clients)

*Could use this to determine car pooling*

**EmployeeEducationInformation**

- EmployeeID (foreign key)

- IQ

- HighestGradeCompleted

- Highest DegreeObtained (0 = no degree, 1 = associates, 2 = bachelors, 3 = masters, 4 = doctorate)

- NumberOfDegrees

**EmployeeTravelInformation**

- EmployeeID (foreign key)

- CityID

- TravelPurpose (0 = business, 1 = pleasure)

- TimeSpentInCity

- Enjoyed (0 = No, 1 = Yes)

**CityInformation**

- CityID (primary key)

- CityName

- CityCountry

- CityRank (integer value describes city popularity)

- CityPopulation

**EmployeeDNAInformation**

- EmployeeID (foreign key)

- Nationality

- BloodType

- DNAsequence

*Not sure about this one, Dr. Mark mentioned it when I went into office hours. He jokingly said we could link intelligence level to DNA stuff, but I don’t know enough about DNA to bullshit more attributes for this table*

*----------------------------------------------------------------------------------------------------------------------------*

**EmployeeComputerDetails (Data for all employees of all companies)**

-EmployeeId

-CompanyId

-WorkComputerOS

-HomeComputerOS

-WorkComputerRAM

-HomeComputerRAM

-WorkComputerHDSpace

-HomeComputerHDSpace

-HomeComputerSoftwares [This is a collection of softwares]

1.Data in this table should be populated only after all the SQL tables are populated

2.If transportation costs exceeds particular threshold value then check this table

3.For particular employee check the match between power of machines, softwares installed at home and softwares installed at office computers.(Softwares in office can be some default softwares like some IDE, Flash, AntiVirus, Java, some browser - no need of separate column for this as every company needs these basic softwares)

4.If employee can work from home with his home machine then display message saying that employee can be encouraged to work from home after proper licensing.