# Andrew McMonagle

MIS 375 Assignment 4

**Part I**

1.

Diagram

Description automatically generated

2.

Assumption:

* I assumed that the participation between employee and Inspector is partial because it is possible for an employee to not be an inspector

3.

A diagram of a service

Description automatically generated with low confidence

Assumptions:

* I assumed that the relationship between offering and products and services is disjoint because an offering can be either a product or a service but not both. I also assumed total participation for this relationship because every offering must be either a product or service and must have an OfferingID.
* I assumed that the relationship between services and repair and maintenance is overlapping because it is possible for a service to be either a repair or maintenance or both. I also assumed partial participation for this relationship because of the fact that not every service is either a repair or maintenance and that a service could be something else.

**Part II**

1. Product(Prod\_Num, Prod\_Title, Prod\_ReleaseDate, Prod\_Price, Prod\_Type)

PK: Prod\_Num

Book(Prod\_Num, Book\_CoverType, Book\_ISBN)

PK: Prod\_Num

FK: Prod\_Num references Product (Prod\_Num)

CD(Prod\_Num, CD\_Artist, CD\_Genre)

PK: Prod\_Num

FK: Prod\_Num references Product (Prod\_Num)

Movie(Prod\_Num, Movie\_Rating, Movie\_Director)

PK: Prod\_Num

FK: Prod\_Num references Product (Prod\_Num)

1. Member(Member\_Num, Lastname, Firstname, Member\_type)

PK: Member\_Num

Guest(Guest\_Num, Lastname, Firstname, StateResidencyType)

PK: Guest\_Num

Visit(Visit\_Num, Date, Time, Member\_Num, Guest\_Num)

PK: Visit\_Num

FK: Member\_Num references Member(Member\_Num)

FK: Guest\_Num references Guest(Guest\_Num)

In\_State(Guest\_Num, Street\_Address, City, State, Zip\_Code)

PK: Guest\_Num

FK: Guest\_Num references Guest(Guest\_Num)