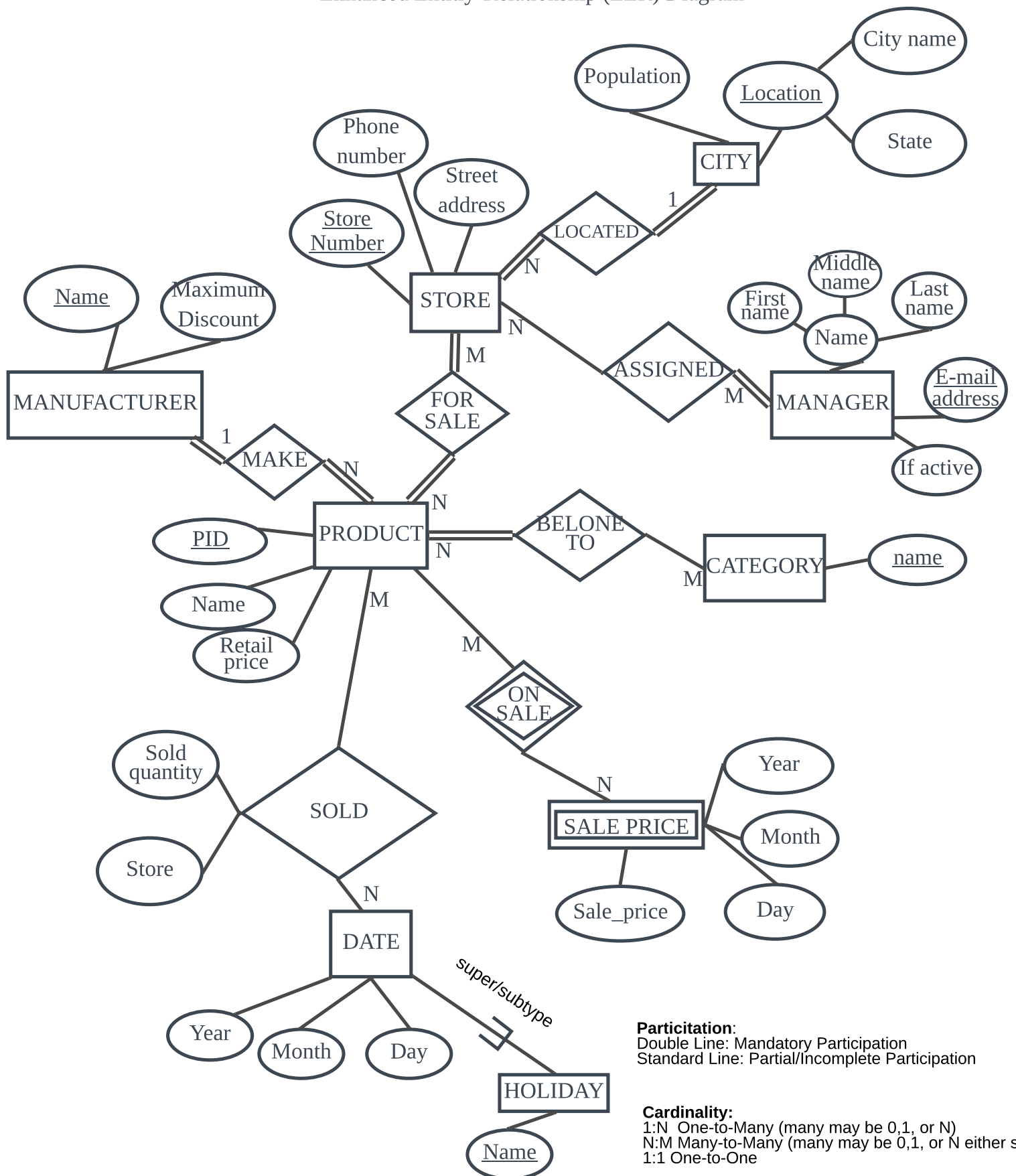**Phase 2 Updated EER | CS6400 Spring 2019 | Team 051**

Modifications of the EER:

- Change "CITY" entity from weak entity to strong entity
- Add a composite attribute "*Location*" to "CITY" entity; the attribute "*Location*" consists of attribute "*City name*" and attribute "*State*"
- Change the relationship type of "STORE" to "CITY" as "N:1"
- Assign the attribute "*Name*" of the entity "MANUFACTURER" to be the identifying attribute
- Add a composite attribute "*Name*" to "MANAGER" entity; the attribute "*Name*" consists of attribute "*First Name*", attribute "*Middle name*" and attribute "*Last name*"
- Assign the attribute "*E-mail address*" of "MANAGER" entity to be the identifying attribute
- Delete "ON SALE" relationship with entity "DATE"
- Change the relationship name "SOLD WITH RETAIL PRICE" to "SOLD"
- Add attribute "*Store*" to "SOLD" relationship
- Change entity "SALE PRICE" to a weak entity, which is dependent on "PRODUCT" entity
- Delete attribute "Sold quantity" from "ON SALE" relationship
- Add attributes "Sale_price", "Year", "Month" and "Day" to entity "SALE PRICE"

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Enhanced Entitiy-Relationship (EER) Diagram

Population — CITY — Location — City name, State

CITY — 1 — LOCATED — N — STORE

STORE attributes: Phone number, Street address, Store Number

MANUFACTURER — Name, Maximum Discount

STORE — N — ASSIGNED — M — MANAGER

MANAGER — Name (First name, Middle name, Last name), E-mail address, If active

STORE — M — FOR SALE — N — PRODUCT

MANUFACTURER — 1 — MAKE — N — PRODUCT

PRODUCT — PID, Name, Retail price

PRODUCT — N — BELONE TO — M — CATEGORY — name

PRODUCT — M — ON SALE — N — SALE PRICE

SALE PRICE — Year, Month, Day, Sale_price

PRODUCT — M — SOLD — N — DATE

SOLD — Sold quantity, Store

DATE — Year, Month, Day

DATE — super/subtype — HOLIDAY — Name

Particitation:
Double Line: Mandatory Participation
Standard Line: Partial/Incomplete Participation

Cardinality:
1:N One-to-Many (many may be 0,1, or N)
N:M Many-to-Many (many may be 0,1, or N either side)
1:1 One-to-One

Relations:
Single Diamond: strong relationship
Double Diamond: identifying relationship