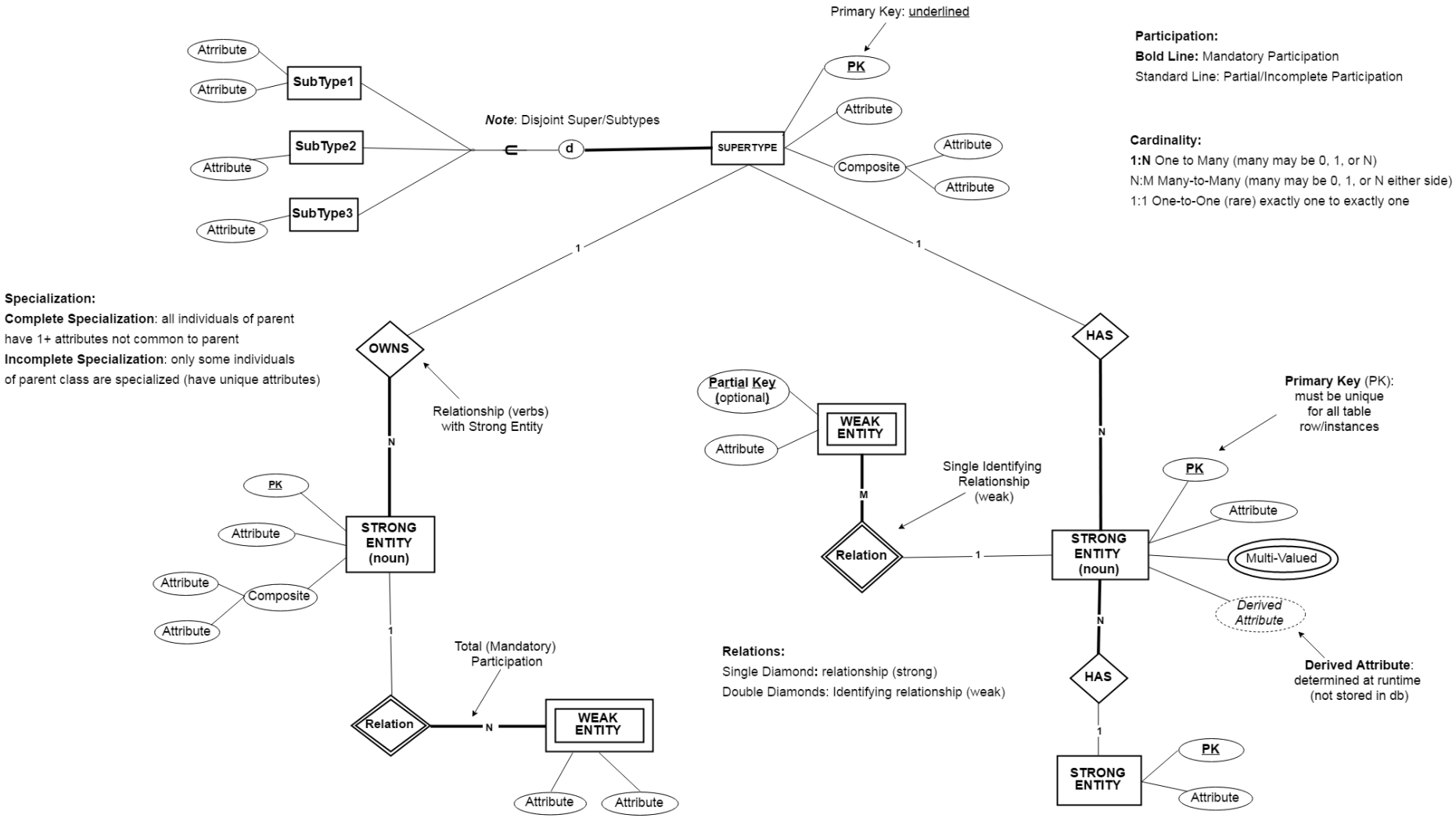
Phase 1 EER | CS 6400 - Fall 2017 | **Team 001**

Enhanced Entity-Relationship (EER) Diagram: (format example: crop/fit to one page)



Participation:
Bold 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 (rare) exactly one to exactly one

Specialization:
Complete Specialization: all individuals of parent have 1+ attributes not common to parent
Incomplete Specialization: only some individuals of parent class are specialized (have unique attributes)

Relations:
Single Diamond**:** relationship (strong)
Double Diamonds: Identifying relationship (weak)

Single Image:format to **fit one-page *landscape***:clearly label attributes, cardinality (1:N), strong vs. weak entities, total(bold) vs. partial participation links, underline keys. Distinguish between double ovals/rectangles/diamonds for attributes, entities, and relations respectively.
Lastly, condense attributes around entities, make sure lines do not cross over other attributes (may unintentionally look like composite attribute).

ENTITY type (**nouns**) and **relationship** type (**verbs**) names are UPPERCASE letters, Attributes with Uppercase first letter
Primary Key (PK) underline, Parital Key (weak) dashed underline

Total/Complete specialization (existence dependency) demands that every entity in the superclass belong to some subclass- represented with a bold line link/connection
Partial/Incomplete specialization(optional all or none) rule allows an entity to not belong to any of subclasses- represented with a **single line** link/connection

ⓓ **Disjoint**:(exclusive either/or but not both) an individual of the parent class may be a member of ***exactly one*** specialized subclass.

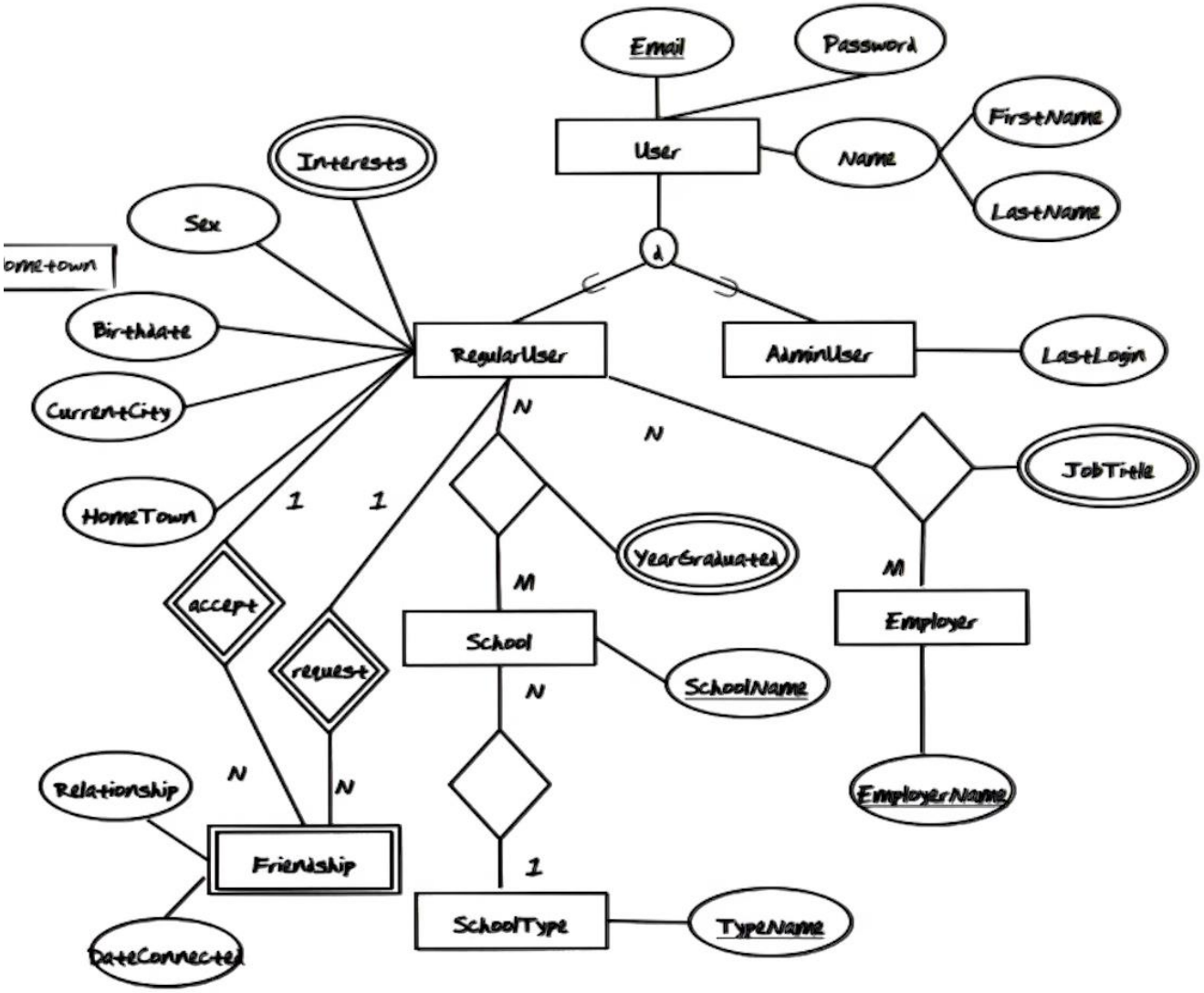
ⓞ **Overlapping**: (both are possible) individual of parent class may be a member of ***more than one*** of specialized subclasses.

∪ **Union**: joining of two super types/classes

Revised: 6/27/2017

Phase 1 EER | CS 6400 - Fall 2017 | **Team 001**

EER Submission details:
Single Image: format to **fit one-page *landscape***, clearly label attributes, cardinality (1:N), strong vs. weak entities, total (bold) vs. partial participation links, underline keys. Distinguish between double ovals/rectangles/diamonds for attributes, entities, and relations respectively. Lastly, condense attributes around entities, make sure lines do not cross over other attributes (may unintentionally look like compound attribute).
Do NOT include Surrogate Keys for Phase 1, these will be added for Phase 2 submission.



Revised: 6/27/2017