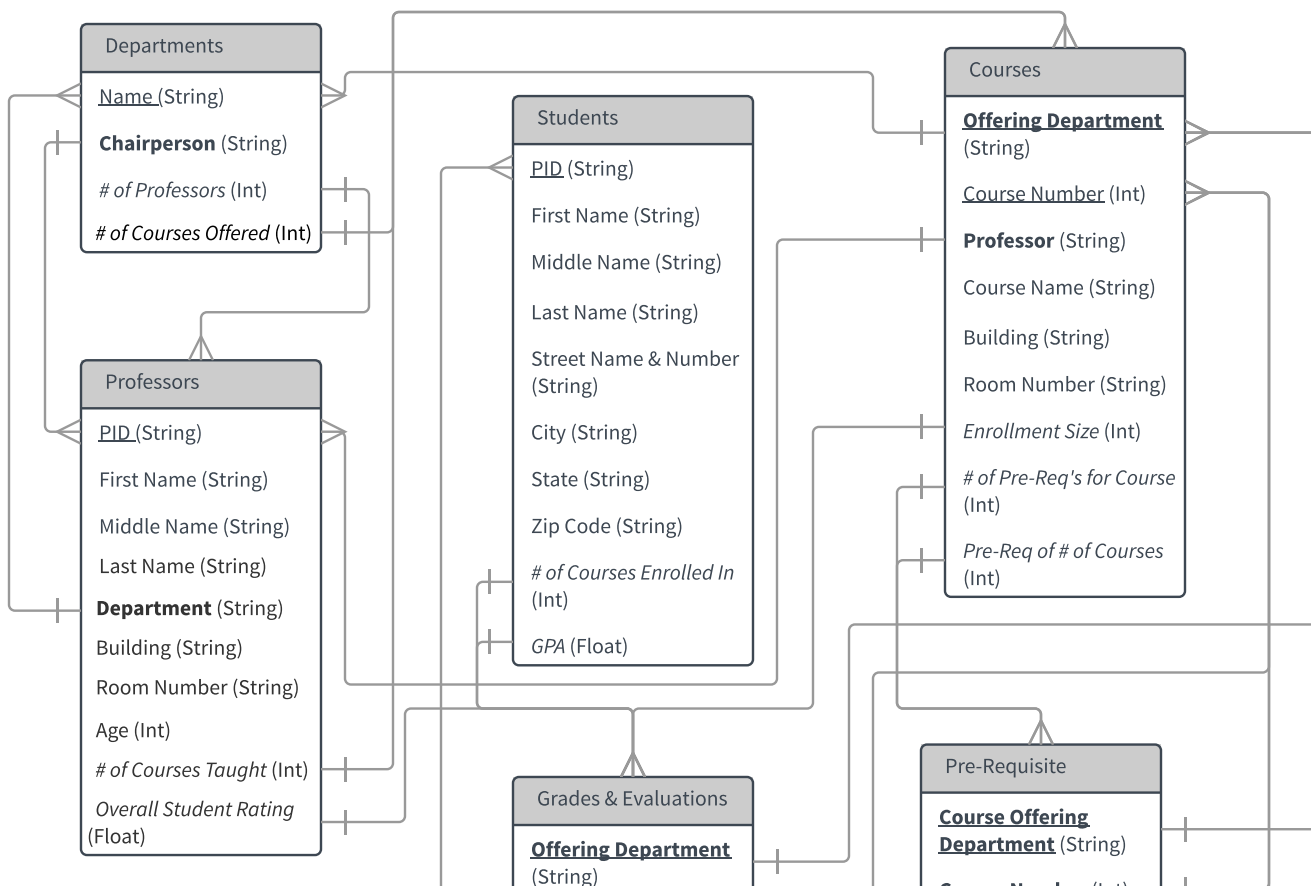


Key: These colors mean the following:

<div style="display: inline-block; width: 20px; height: 20px; background-color: yellow; border: 1px solid black;"></div> = Entity Type	<div style="display: inline-block; width: 20px; height: 20px; background-color: lightgreen; border: 1px solid black;"></div> = Weak Entry Type
<div style="display: inline-block; width: 20px; height: 20px; background-color: lightcoral; border: 1px solid black;"></div> = Attribute	<div style="display: inline-block; width: 20px; height: 20px; background-color: darkgreen; border: 1px solid black;"></div> = Identifying Relationship Type
<div style="display: inline-block; width: 20px; height: 20px; background-color: lightblue; border: 1px solid black;"></div> = Relationship Type	<div style="display: inline-block; width: 20px; height: 20px; background-color: lightgray; border: 1px solid black;"></div> = Key Attribute of Weak Entity Type
<div style="display: inline-block; width: 20px; height: 20px; background-color: plum; border: 1px solid black;"></div> = Key Attribute	<div style="display: inline-block; width: 20px; height: 20px; background-color: magenta; border: 1px solid black;"></div> = Derived Attribute
<div style="display: inline-block; width: 20px; height: 20px; background-color: white; border: 1px solid black;"></div> = Composite Attribute	

Problem #1: E-R Diagram



Overall Student Rating
(Float)

Offering Department

(String)

Course Number (Int)

Student (String)

Student Grade (Float)

Teacher Evaluation
(Float)

Course Offering

Department (String)

Course Number (Int)

Pre-Req Course

Offering Department
(String)

Pre-Req Course
Number (Int)

Key:

Underline: Represents a Key

Bold: Represents a Foreign Key

Pointer to Attribute: Links to another part of Database, value actually stored

Italics: Derived Attribute

Pointer to an Entire Table: Table the derived attribute is obtained from

Bold and Underline: Is a key in the relation but also links to another relation, making it a foreign key as well.

Problem #2; Relational Schema