

# ENSF 608 – Fall 2021

Lab 2 – Friday, October 18

Student Name: Bhavyai Gupta

Submission date: October 18, 2021

## Question 1 - Relational Data Model

STUDENT

<u>StudentID</u>	FName	LName	Day	Month	Year	Taught_By	CurrentGrade
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KINDERGARTEN

<u>StudentID</u>	AMvsPM
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ELEMENTARY

<u>StudentID</u>	Division
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TEACHER

<u>CertificateID</u>	Prefix	FName	LName	Led_By
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TEACHER\_GRADE

<u>CertificateID</u>	<u>GradeLevels</u>
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GUARDIAN

<u>StudentID</u>	<u>FName</u>	<u>LName</u>	Address	Email
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GUARDIAN\_PHONE

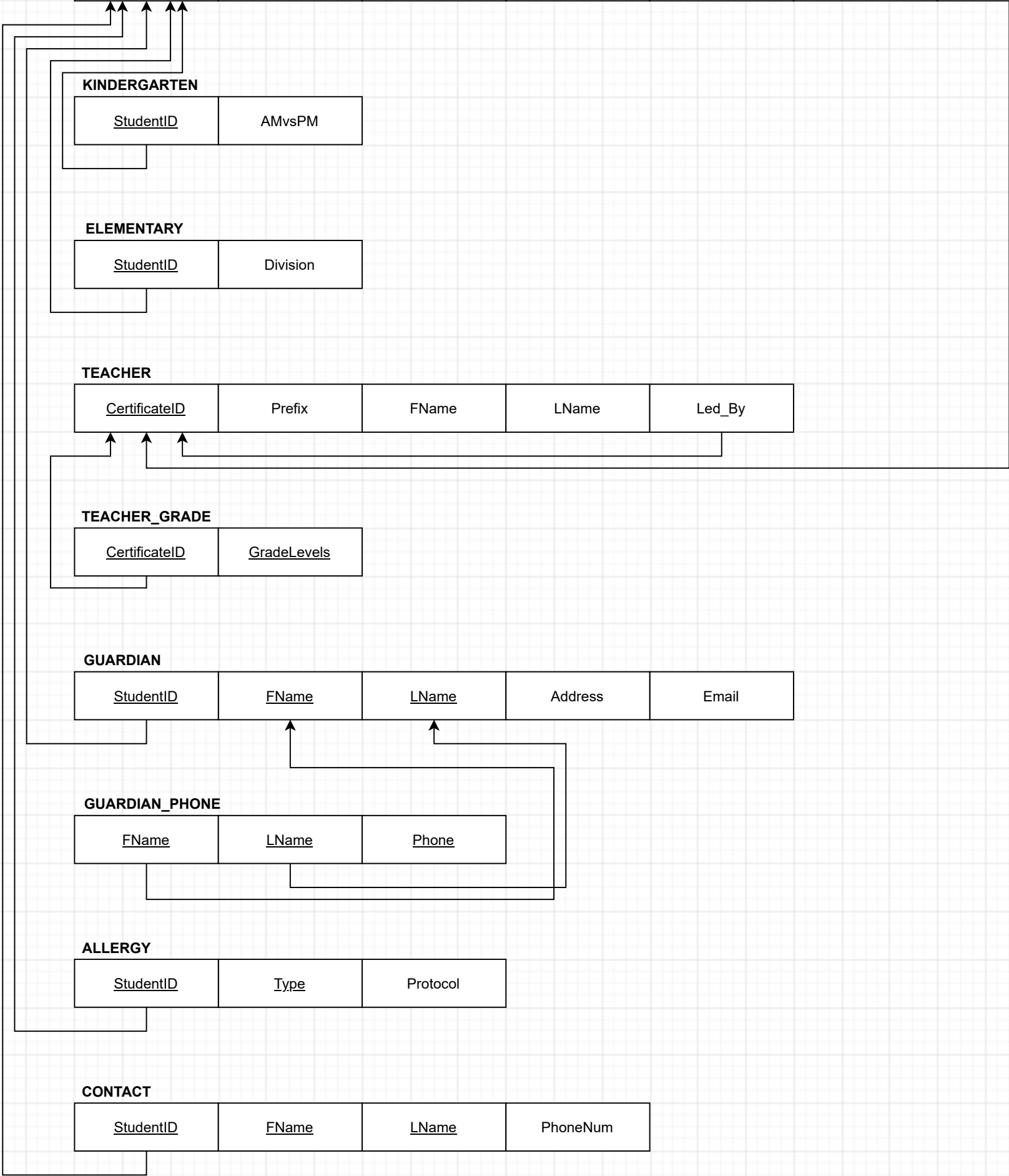
<u>FName</u>	<u>LName</u>	<u>Phone</u>
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ALLERGY

<u>StudentID</u>	<u>Type</u>	Protocol
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CONTACT

<u>StudentID</u>	<u>FName</u>	<u>LName</u>	PhoneNum
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## Question 2 - Relational Data Model using Option 8A

**VEHICLE**

<u>Vin</u>	Price	Model
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**CAR**

<u>Vin</u>	Engine_size
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**TRUCK**

<u>Vin</u>	Tonnage
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**SUV**

<u>Vin</u>	No_seats
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**SALESPERSON**

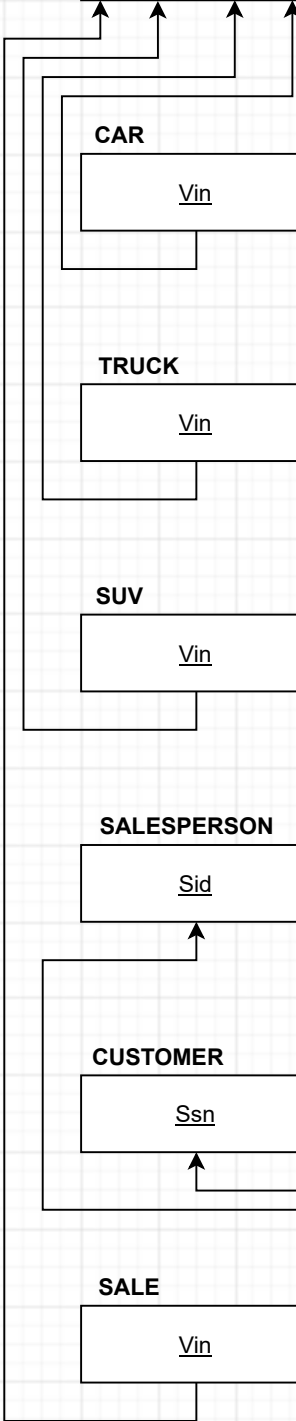
<u>Sid</u>	Name
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**CUSTOMER**

<u>Ssn</u>	Name	Street	City	State
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**SALE**

<u>Vin</u>	<u>Sid</u>	<u>Ssn</u>	Date
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## Question 2 - Variation using Option 8B

## CAR

<u>Vin</u>	Price	Model	Engine_size
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## TRUCK

<u>Vin</u>	Price	Model	Tonnage
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## SUV

<u>Vin</u>	Price	Model	No_seats
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## Question 2 - Variation using Option 8C



VEHICLE						
<u>Vin</u>	Price	Model	Vehicle_Type	Engine_size	Tonnage	No_seats

## Question 2 - Variation using Option 8D

**VEHICLE**

<u>Vin</u>	Price	Model	Car_Flag	Engine_size	Truck_Flag	Tonnage	SUV_Flag	No_seats
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### Question 3 - Design Assumptions

1. Total participation by Book in relationship type PUBLISHED\_BY.  
Any available book must have published by one publisher.
2. Total participation by Book in relationship type WRITTEN\_BY.  
Any available book must have at least one author.
3. Author as weak entity.  
Author must be associated by a book that he/she has written.

