2023 Lancaster University

SCC 201 Lab Week 3

**Instructions:**

This week you will continue to work on the relational model.

**TASK 1) ER Diagram to text (The expected time of work is 50-70 mins):**

Provide English expressions for the given six ER diagrams.

**TASK 2) ER Diagram to Relational Model (The expected time of work is 50-70 mins):**

Provide Relational Schemas and Integrity Constraints for the given six ER diagrams.

1. Mec\_Repair(MID:integer, Name:string, Brand:string), **ICs:** MID (Primary key), Brand (Foreign key referencing Car)

Car(Brand:string, weight:integer), **ICs:** Brand (Primary key)

1. School\_Works\_In(Name:string, S\_Code:integer, T\_Name:string, e\_mail:string), **ICs:** S\_Code (Primary key), {T\_Name,e\_mail} NOTNULL (Foreign Key referencing Teacher, ON DELETE CASCADE)

Teacher(Name:string, e\_mail:string), **ICs:** { Name,e\_mail} (Primary Key)

1. BusTransferStudents(PlateID:integer,capacity:integer, time:string, Name:string, sID:integer), **ICs:** sID (PrimaryKey, NOTNULL), PlateID NOTNULL.
2. CharacterInvolvesInComics(Year:integer, created\_year:integer, Com\_Name:string, Char\_Name:string NOTNULL), **ICs:** {Com\_Name,Char\_Name} (Primary Key).
3. BankPersonAccount(B\_Name:string, Found\_Year:string, Type:integer, Amount:integer, P\_Name:string, SSN:integer), **ICs:** {B\_Name,SSN} (Primary Key), B\_Name NOTNULL, P\_Name NOTNULL.
4. TakesCarOfDependent(Type:integer, Amount:integer, Name:string, surname:string, Work\_ID:integer), **ICs:** {Work\_ID,surname} (Primary key), Work\_ID NOTNULL, Work\_ID (foreign key referencing Person, ONDELETE CASCADE)

Person(Name:string, Work\_ID:integer, surname:string ), **ICs:** Work\_ID (primary key) surname NOTNULL (foreign key referencing TakesCarOfDependent)

**Diagram

Description automatically generated**