**Course Project   
DeVry University  
College of Engineering and Information Sciences**

**Course Number: CEIS236**

**Course Project Deliverable: 4**

**PART I:**

Question 1.

* Customer - PK : Cus\_Code
  + FK: None
* Invoice – PK: Inv\_Number
  + FK: Cus\_Code is a FK to the costumer table
* Line – PK: Inv\_Number, Line\_Number
  + FK: Inv\_Number is FK to Invoice table, P\_Code is FK go the Product table
* Product – PK: P\_Code
  + FK: V\_Code is FK to the Vendor table
* Vendor – PK: V\_Code
  + FK: None

Question 2. Yes, the data in the primary key fields are all unique and there are no nulls in the primary key fields.

Question 3.

* Customer: N/A
* Invoice: Yes, all foreign key values point to records that exist in the related Customer table.
* Line: Yes, all foreign key values point to records that exist in the related Invoice and Product tables.
* Product: Yes, all the foreign key values point to records in the related Vendor table or values are null.
* Vendor: N/A

Question 4. Each Customer can have many Invoices, however, each Invoice can only be associated with one Customer. This is a One-to-Many relationship – 1:M

Question 5. Invoices and Product have a Many-to-Many relationship – M:N. One Invoice can have many Product items, and one Product item can be listed on many Invoices. The Line table is the linking table or associated table between the two M:N tables.

Question 6.

A screenshot of a computer

Description automatically generated

**PART II:** ERD

Player – player\_id, first\_name, last\_name, age

Parents

Team – team\_id, name, colors

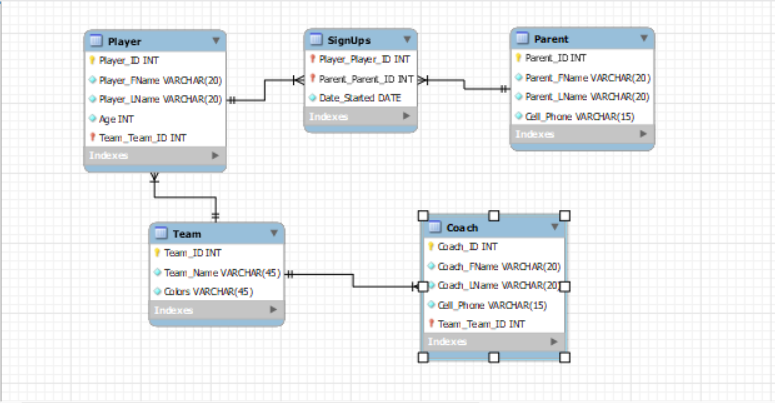
Coach

Business Rules

Player is on one Team only; Each Team can have many Players – 1:M

Coach is on one Team only; Each Team can have many Coaches – 1:M

Player can have many Parents; Parent can have many Players – M:N



**PART III:** Create Dependency diagram

Appointment

App\_Num(PK)

Doc\_EmpID (FK)

App\_Date

App\_Time

App\_PatientID

App\_Name

App\_Phone

App\_Street

App\_City

App\_State

App\_Zip

App\_Status

Doc\_EmpID (PK)

Doc\_FName

Doc\_LName

Doc\_CellPhone

Doctor

Fixed to 3NF Below

App\_Num(PK)

Doc\_EmpID (FK)

App\_Date

App\_Time

App\_PatientID

App\_Status

Appointment

\

PatientID

Patient\_Name

Patient\_Phone

App\_Street

Patient\_City

Patient\_State

Patient\_Zip

Patient

Doc\_EmpID (PK)

Doc\_FName

Doc\_LName

Doc\_CellPhone

Doctor