Question 1: Understand A Relation

Read the following relation represented as a table and answer the questions.

MotorVehicleCollisions

CRASH DATE	CRASH TIME	BOROUGH	ZIP CODE	LATITUDE	LONGITUDE	LOCATION	ON STREET NAME	CROSS STREET NAME	OFF STREET NAME	COLLISION_ID
02/07/2021	14:45	QUEENS	11385				CYPRESS HILLS STREET	CYPRESS AVENUE		4389912
02/07/2021	9:50			40.636917	-74.152115	(40.636917°, -74.152115°)	RICHMOND TERRACE	MARINERS LANE		4389999
02/07/2021	14:30	BROOKLYN	11212	40.65461	-73.922	(40.65461°, -73.922°)	KINGS HIGHWAY	REMSEN AVENUE		4389926
02/07/2021	17:25	BRONX	10457	40.8494	-73.90304	(40.8494°, -73.90304°)	ECHO PLACE	ANTHONY AVENUE		4390463
02/07/2021	16:00	BRONX	10462	40.85061	-73.863045	(40.85061°, -73.863045°)	MATTHEWS AVENUE	NEILL AVENUE		4390548
02/07/2021	14:30	BROOKLYN	11212	40.65461	-73.922	(40.65461°, -73.922°)	KINGS HIGHWAY	REMSEN AVENUE		4390325
02/07/2021	2:09	BRONX	10460	40.850563	-73.882484	(40.850563°, -73.882484°)			2297 SOUTHERN BOULEVARD	4389746
02/07/2021	13:00			40.777023	-73.77554	(40.777023°, -73.77554°)	BELL BOULEVARD			4389822
02/07/2021	13:29	BRONX	10466	40.88839	-73.84666	(40.88839°, -73.84666°)	EAST 231 STREET	LACONIA AVENUE		4389956

What is the name of this relation: MotorVehicleCollisions

What is the degree of this relation: 10

What is the cardinality of this relation: 9

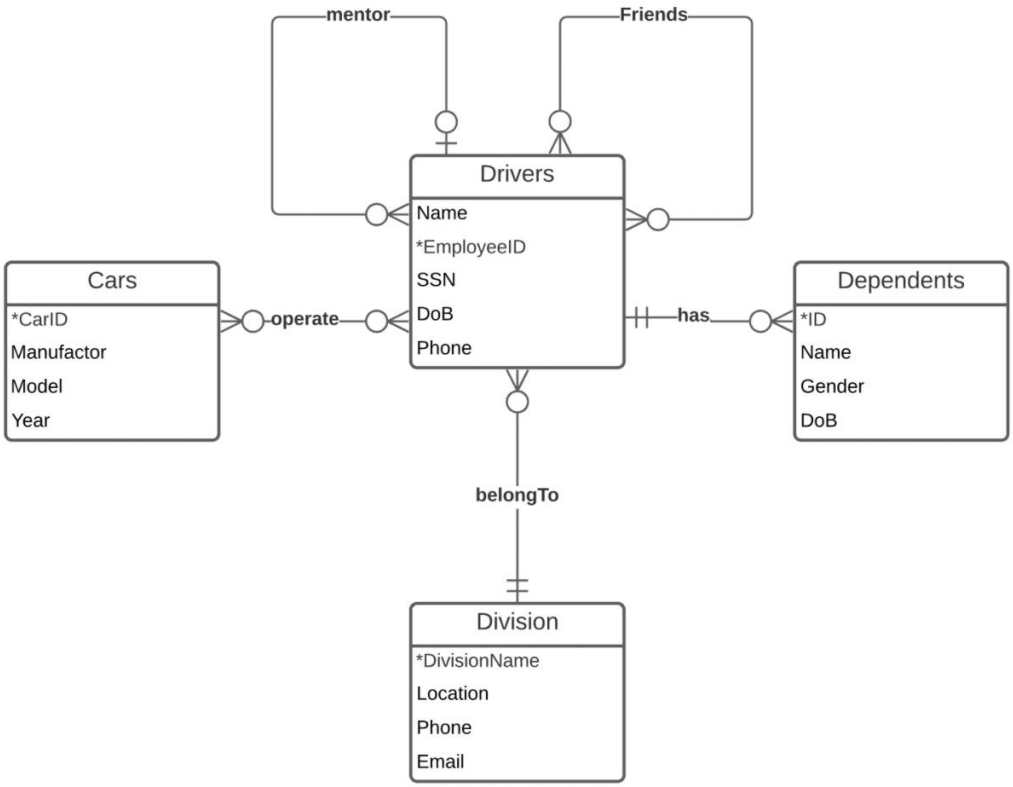
What might be the primary key of this relation: COLLISION_ID

What is the domain of ZIP CODE: Integer (number)

What is the domain of CRASH DATE: Date

Question 2: Interpret an ERD

Translate the ERAD to a Relational Model. Make sure you represent the Relational Model by a set of Relational Schemas, and explicitly represent the primary key(s) and foreign key(s).



Answer:

Cars (CarID, Manufactor, Model, Year)

Drivers (EmployeeID, Name, SSN, DoB, Phone)

Division (DivisionName, Location, Phone, Email)

Dependents (ID, Name, Gender, DoB)

MISSED RELATIONS:

Drivers_Drivers(EmployeeID(fk), FriendID(fk))

Driver_Car(EmployeeID(fk), CarID(fk))