

# CS480 – Course project

Summer 2021

**Database: Car Import Database (CIDb)**

---

## **Description:**

The following is a database system for managing imported foreign cars: each vehicle has a unique identification number called a VIN, a make (brand), model, type (SUV, coupe, etc.), year, and price. Each car has an owner like a factory, dealership, or a previous owner if it's used. The owner has an ID, name, address, history, and accidents (if the car was pre-owned, accidents have to be listed). These cars have to be imported into the States by a shipper. The shipper has a company name, location, and a tracking ID.

# Part 2 – CRUD (Create, read, update, and delete)

Deadline: July 17, 2021

---

## List of strong entities:

1. Vehicle
2. Owner
3. Shipper

## List of weak entities:

4. Dealership
5. Previous\_Owner
6. Contractor

We will implement the following functionality using Java and SQL with necessary GUI interfaces.

1. Insert/delete/update/read a **vehicle** (all attributes except the VIN). The VIN should be unique and not null.
2. Insert/delete/update/read an **owner**. The OwnerID should be generated by the system automatically using MySQL autoincrement.
3. The tracking ID attribute should be unique and preferably would be auto-generated by the system using autoincrement

# Part 3 – Queries

**Deadline: July 31, 2021**

---

Based on the Demo, we will implement the following functionality using Java and SQL with necessary GUI interfaces.

## **Trivial Queries:**

1. List all vehicles
2. List all owners
3. List all shippers

## **Non-trivial Queries:**

1. List all the vehicles of a specific type, year, and price
2. List all the owners by type; either a dealership or a previous owner.
3. Find vehicles of a certain price range
4. Find shippers that ship the most vehicles
5. Make a view that shows vehicles shipped from the factory so that the user knows they are brand new cars and not pre-owned