**Assignment1 Databases 2**

**ERD:**

Diagram

Description automatically generated

My thought process for creating the above ERD was as follows:

* Create a table for the Customers, including name and address. With the primary key of Customer No so there is no repeated Customers.
  + Customers can only have 1 Record therefore the 1:1 relationship
  + Record table to keep track of the customer’s Credit limit and Debt with a primary key Record ID and one foreign keys; Customer No
  + Customers\_Contract weak entity between Contract and Customers tables
* Another table for Contract where it has the price, with a primary key of Contract No so there is no repeated Numbers
  + Customers can have many contracts and contracts can have many customers
  + Contract and Schedule share a weak entity to accomodate the M:N relationship between both
* A table for Schedule with the start date, end date, start time, end date, origin, destination and description. With a primary key of Schedule No so there is no repeated Numbers
  + Schedule has a weak relationship with Driver to accommodate the M:N relationship
* A table for Driver with the Driver name, Home depot, Work Start date. With a primary key of Driver No so there is no repeated IDs
  + Driver can drive any car and Cars can be driven by many Drivers therefore the weak entity to allow the use of the M:N relationship
  + Car table has Make, Service date, Date of service and Mileage With a primary key of Car Reg so there is no repeated Car plates