Last digit of your NUID: 5 or 6

Your NUID:
Your Name:

Question 1 (6 points)

The Wang Pharmacy is a nonprofit organization. Its mission is to provide essential medications to the underprivileged population. It has many pharmacies at different locations and employs thousands of employees.

Please design a relational database based on the business requirements below to help the Wang Pharmacy maximize its operation efficiency. Normalize the design to the 3rd Norma Form.

1) Store the patient information
2) Store the doctor who writes a prescription
3) Store the pharmacist who fills a prescription
4) Store the prescription drug information
5) Track the pharmacy where a pharmacist works
6) A pharmacist may work at multiple pharmacies
7) There are usually several pharmacists at a pharmacy
8) Track the patient prescription history
9) Track the pharmacy where a prescription is filled

Create the ERD in your design tool. Submit the ERD.

Question 2 (3 points)

Our data usage pattern is to review orders independently of other information about a customer, such as a customer's names. Please use the referencing design technique to design a MongoDB database reflecting the data provided below.

CustomerID	FirstName	LastName	SalesOrderID	ProductID	Name	OrderQty	UnitPrice
11023	Seth	Edwards	52912	883	Short-Sleeve Classic Jersey, L	1	54
11023	Seth	Edwards	74658	922	Road Tire Tube	1	4

```
-- Your NUID:
-- Your Name:


-- Question 3 (3 points)

/* Using the content of AdventureWorks2008R2, write a query to
   retrieve the customers who have made more than one order
   and have always ordered just one product in an order.

   Include the customer id and number of orders of a customer
   in the returned data. Sort the returned data by the customer id. */




-- Question 4 (3 points)

/*
Using the content of AdventureWorks2008R2,
write a query to retrieve every month's most valuable order of 2007.
The most valuable order has the highest totaldue amount. The totaldue
amount is stored in the SalesOrderHeader table. If there is a tie,
the tie needs to be retrieved.

Return the month, the order id and totaldue value, and the total
order quantity for the order. The order quantity can be found in
SalesOrderDetail. Sort the returned data by the month.
*/
```