Last digit of your NUID: 7, 8 or 9

Your NUID:
Your Name:

Question 1 (6 points)

The Wang Medical Research Institute conducts medical research. Please design a relational database to support its recruiting operations based on the business requirements listed below. Normalize your design to the 3rd Normal Form.

1) Applicants need to be tracked.

2) An applicant's skills must be tracked. Skills are all coded. A skill has a standard code, but details about it is also stored in the database.

3) There are many interviewers available for screening applicants.

4) An applicant's interview history must be tracked. To be more specific, management wants to know what interviewer(s) have met with an applicant.

5) If an applicant has passed the screening, an offer will be extended to the applicant. The offer must be tracked.

6) There are some standard offer packages. A successful applicant will be extended one of the packages.

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
11028	Jill	Jimenez	57943	873	Patch Kit/8 Patches	1	2
11028	Jill	Jimenez	67961	962	Touring-3000 Yellow, 50	1	742

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

-- Question 3 (3 points)

/* Using the content of AdventureWorks2008R2,
   write a query to retrieve the dates in which there was
   at least one product sold but no product in red
   was sold.

   Return the "date" and "total product quantity sold
   for the date" columns. The order quantity can be found in
   SalesOrderDetail.

   Sort the returned data by the
   "total product quantity sold for the date" column in desc. */



-- Question 4 (3 points)

/* Using the content of AdventureWorks2008R2,
   write a query to retrieve the least popular product color
   for each year. The least popular product color has the lowest
   total sold quantity of the products in that color.
   Use OrderQty in SalesOrderDetail to calculate the total sold quantity.
   Exclude the products which don't have a specified color.

   Include the year, product color and total sold quantity
   of the least popular product color in the returned data.
   If there is a tie, it needs to be retrieved.
   Sort the returned data by the year. */
```