STSCI 5060 HW2
Assigned on 10/1/2018
Due on 10/8/2018

If a question involves an ERD, you are required to use the book (or HRT) notation by following the conventions introduced in the class, e.g., the entity names must be capitalized, etc. You may just manually draw the ERDs (of course, you are welcome to use a drawing tool like PowerPoint to draw the ERDs, or you may hand in an ERD that was partially drawn by your hand and partially with a drawing tool). If a textbook question mentions using a commercial drawing tool, just ignore it. The following textbook questions are based on the 12th edition.

1. Problem 4-34 on Page 195. Use the book (or HRT) notation for Question g. (22 points)

2. Problem 4-53 on Page 200 (16 points).

3. Problem 5-28 on Page 234. You should explain why you choose the length and precision if applicable (as long as they make sense, your choices are OK). (12 points)

4. Problem 5-34 on Page 234. You are required to use the schema similar to that of Slide 20 of the lecture notes of MDBM-Chapter 5. (12 points)

5. Problem 5-50a on Pages 236. In addition to the conditions provided by the book, add two following conditions: There are 5000 direct accesses per hour to CUSTOMER, which either further access REGULAR CUSTOMER or NATIONAL ACCOUNT CUSTOMER. There are also 5000 direct accesses per hour to PRODUCT, 3000 of which access ORDER LINE, and 2000 accesses ask for information in ORDER. Redraw the EER diagram using the book (or HRT) notation when you answer this question (Problem 5-50a). (26 points)

6. Create a join index on the CustomerID fields of the Customer_T and Order_T tables listed below.
   (12 points)

Customer_T

RowID	CustomerID	CustomerName	CustomerAddress	CustomerCity	CustomerState	CustomerZIP
1001	1	Modern Art	1234 Pine Ave	Plano	TX	75094
1002	2	Value Furniture	11 Bush Ln	Gainesvill	FL	32601
1003	3	Home Furnishings	1088 Circlevill Blvd	Albany	NY	12209
1004	4	Impression	67 Rainbow St	Carteret	NJ	07008
1005	5	Hill Top	20 Cherry Rd	Ithaca	NY	14850
1006	6	City Furniture	1178 Boatyard Dr	Seattle	WA	97954
1007	7	Target	College Ave	State College	PA	16801
…	…	…	…	…	…	…

Order_T

RowID	OrderID	OrderDat	CustomerID
5001	3008	10/1/2011	1
5002	3456	10/8/2011	7
5003	6789	10/25/2011	1
5004	5467	11/1/2011	4
5005	4532	11/5/2011	6
5006	5678	11/8/2011	6
5007	6784	12/6/2011	3
5008	1256	12/6/2011	4
5009	7890	12/8/2011	1
50010	4560	12/18/2011	1
50011	9843	12/26/2011	7
…	…	…	…