SE212 Database System and Design
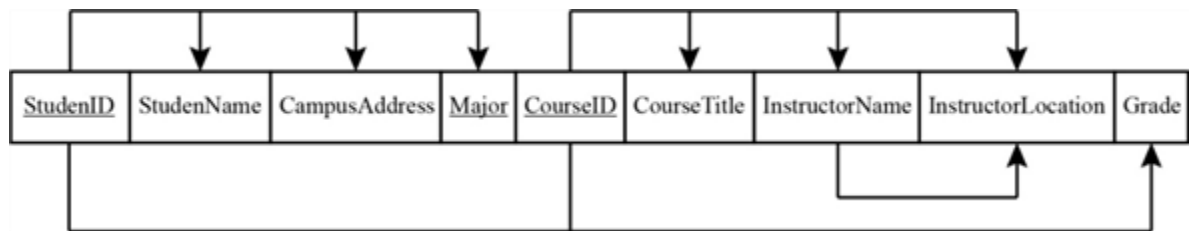Lab 10 Database Normalization
Name_____SID_____

Grade Report

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543291073	Baker	104 Phillips	Acctg	Acct 201	Fund Acctg	Miller	H 310	B
543291073	Baker	104 Phillips	Acctg	Mkgt 300	Intro Mktg	Bennett	B 212	A

1. Table above shows a relation called GRADE REPORT for a university. Please complete the following assignment and a relational schema and diagram the functional dependencies in the relation.

a. In what normal form is this relation?
b. Decompose GRADE REPORT into a set of 3NF relations.
c. Draw a relational schema for your 3NF relations and show the referential integrity constraints.

Shipment ID:	00-0001		Shipment Date:	01/10/2010
Origin:	Boston		Expected Arrival:	01/14/2010
Destination:	Brazil			
Ship Number:	39		Captain:	002-15
				Henry Moore

Item Number	Type	Description	Weight	Quantity	TOTALWEIGHT
3223	BM	Concrete Form	500	100	50,000
3297	BM	Steel Beam	87	2,000	174,000
				Shipment Total:	224,000

2. Table above shows a shipping manifest. Please complete the following.
   a. Draw a relational schema and diagram the functional dependencies in the relation.
   b. In what normal form is this relation?
   c. Decompose MANIFEST into set of 3NF relations.
   d. Draw a relational schema for your 3NF relations and show the referential integrity constraints.
3. Why do we need to normalize the database? What if we don't?

4. Figure below show EER diagram for restaurant, its tables and the waters and waiting staff managers who work at the restaurant. Your assignment is to:
   a. Develop a relation schema
   b. Show the functional dependencies

c. Develop a set of 3NF relations