

Business Data Management

Assignment I

Due Date: Oct. 10th

FIGURE P1.1 The File Structure for Problems 1-3

PROJECT_CODE	PROJECT_MANAGER	MANAGER_PHONE	MANAGER_ADDRESS	PROJECT_BID_PRICE
21-5Z	Holly B. Parker	904-338-3416	3334 Lee Rd., Gainesville, FL 37123	16833460.00
25-2D	Jane D. Grant	615-898-9909	218 Clark Blvd., Nashville, TN 36362	12500000.00
25-5A	George F. Dorts	615-227-1245	124 River Dr., Franklin, TN 29185	32512420.00
25-9T	Holly B. Parker	904-338-3416	3334 Lee Rd., Gainesville, FL 37123	21563234.00
27-4Q	George F. Dorts	615-227-1245	124 River Dr., Franklin, TN 29185	10314545.00
29-2D	Holly B. Parker	904-338-3416	3334 Lee Rd., Gainesville, FL 37123	25559999.00
31-7P	William K. Moor	904-445-2719	216 Morton Rd., Stetson, FL 30155	56850000.00

1. (5 pts) How many records does the file contain? How many fields are there per record?
2. (10 pts) What problem would you encounter if you wanted to produce a listing by city? How would you solve this problem by altering the file structure?
3. (10 pts) What data redundancies do you detect? How could those redundancies lead to anomalies?
4. (10 pts) Identify and discuss the serious data redundancy problems exhibited by the file structure shown in Figure P1.5.

FIGURE P1.5 The File Structure for Problems 4-5

PROJ_NUM	PROJ_NAME	EMP_NUM	EMP_NAME	JOB_CODE	JOB_CHG_HOUR	PROJ_HOURS	EMP_PHONE
1	Hurricane	101	John D. Newson	EE	85.00	13.3	653-234-3245
1	Hurricane	105	David F. Schwann	CT	60.00	16.2	653-234-1123
1	Hurricane	110	Anne R. Ramoras	CT	60.00	14.3	615-233-5568
2	Coast	101	John D. Newson	EE	85.00	19.8	653-234-3254
2	Coast	108	June H. Sattlemeir	EE	85.00	17.5	905-554-7812
3	Satellite	110	Anne R. Ramoras	CT	62.00	11.6	615-233-5568
3	Satellite	105	David F. Schwann	CT	26.00	23.4	653-234-1123
3	Satellite	123	Mary D. Chen	EE	85.00	19.1	615-233-5432
3	Satellite	112	Allecia R. Smith	BE	85.00	20.7	615-678-6879

5. (10 pts) How would you reorganize the data – i.e., what new files should you create to help eliminate the data redundancies found in the file shown in Figure P1.5?
6. (15 pts) Give an example of each of the three types of relationships (1:1, 1:N, M:N).

Using Figure P2.4 as your guide, work Problems 7–8. The DealCo relational diagram shows the initial entities and attributes for the DealCo stores, located in two regions of the country.

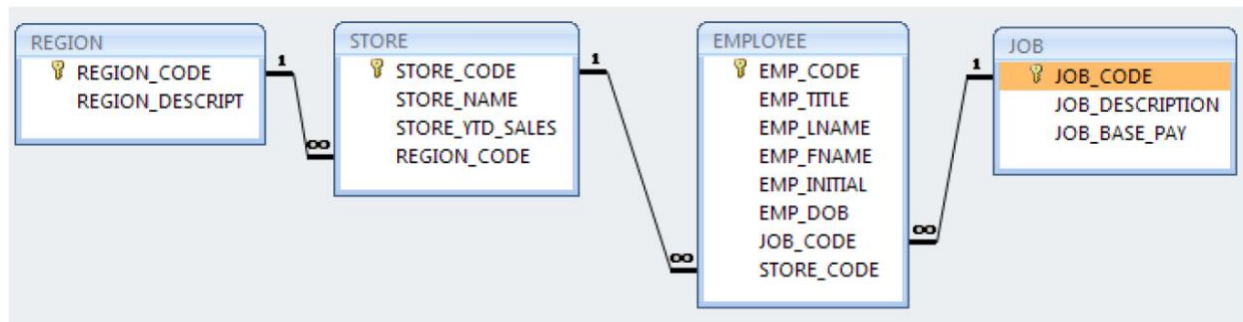


Figure P2.4 The DealCo relational diagram

7. (10 pts) Identify each relationship type and write all of the business rules.
8. (10 pts) Create the basic Crow's Foot ERD for DealCo. (You can hand in a hand-drawn diagram for this, but please make sure you have your name noted on the page, if you do so.)
9. (20 pts) Write the business rules that are reflected in the ERD shown in Figure P2.15. (Remember that the ERD is always read from the "1" to the "M" side, regardless of the orientation of the ERD components.) Will there be any problems in representing real-world data through this model (i.e., are any of the assumptions problematic in the real-world)?

FIGURE P2.15 The Crow's Foot ERD for Problem 9

