

REVIEW QUESTIONS 1

1. Discuss each of the following terms:
 - a. data
 - b. field
 - c. record
 - d. file
2. What is data redundancy, and which characteristics of the file system can lead to it?

PROBLEMS 1

Given the file structure shown in figure below, answer problems 1 through 4.

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	\$16,833,460.00
25-2D	Jane D. Grant	615-898-9909	218 Clark Blvd., Nashville, TN 29185	\$12,500,000.00
25-5A	George F. Dorts	615-227-1245	124 River Dr., Franklin, TN 29185	\$32,512,420.00
25-9T	Holly B. Parker	904-338-3416	3334 Lee Rd., Gainesville, FL 37123	\$21,563,234.00
27-4Q	George F. Dorts	615-227-1245	124 River Dr., Franklin, TN 29185	\$10,314,545.00
29-2D	Holly B. Parker	904-338-3416	3334 Lee Rd., Gainesville, FL 37123	\$25,559,999.00
31-7P	William K. Moor	904-445-2719	216 Morton Rd., Stetson, FL 30155	\$56,850,000.00

1. How many records does the file contain, and how many fields are there per record?
2. What problem would you encounter if you wanted to produce a listing by city? How would you solve this problem by changing the file structure?
3. If you wanted to produce a listing of the file contents by last name, area code, city, state, or zip code, how would you change the file structure?
4. What data redundancies do you notice, and how could these redundancies lead to anomalies?

Given the file structure shown in figure below, answer problems 5 through 6.

PROJ_NUM	PROJ_NAME	EMP_NUM	EMP_NAME	JOB_CODE	JOB_CHG_HOUR	PROJ_HOURS	EMP_PHONE
1	Hurricane	105	David F. Schwann	CT	\$60.00	16.2	653-234-1123
1	Hurricane	101	John D. Newson	EE	\$85.00	13.3	653-234-3245
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. Sattlemei	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

5. Identify and discuss the serious data redundancy problems exhibited by the file structure?
6. How many different data sources are likely to be used by the file?