
----- CIS 310 Exercise 1 -----

/*

STUDENT NAME: Romdan Mohamed

STUDENT ID: 5480558

SUBMISSION DATE:1/12/24

*/

1. Do you spot any data redundancies in given data table? If so, what are the redundancies?
2. Explain the 3 types of data anomalies using below table. Update, Insertion, and Deletion.
-- Your explanation should refer to specific data as shown. Such as " When Project manager is.....It causes....."

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. Data Redundancy:
Yes, The number for Holly B. Parker is redundant.

2a. Update Anomaly:

if we changed the projects managers phone number(615,898,9909)for Jane D. Grant, in project 25-2D needs to be updated. All Jane D. Grants phone number throughout multiple projects needs to be modified.

2b. Insertion Anomaly:

For example: if we insert a project for Willam K. Moor without an existing project that could be problematic.

2c. Deletion Anomaly:

When the only project associated with specific manager is deleted which leads to information loss . For example, Willam K. Moor in project 31-7P, if we delete the project we would lose the info's we have about William K. Moor.