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--============================  CIS 310 Exercise 1    ==========================
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STUDENT ID: 5491133

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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:

The redundancy is manager holly are George phone number and address being mentioned multiple times.

2a. Update Anomaly:

Update anomalies prevent inconsistency in database. For example, if manager holly B. parker were to change their phone number and it was only change in the very first row then there will be an update anomaly to update the newest number for the other row for holly b.

2b. Insertion Anomaly:

Insertion anomaly is when a new data in inserted into the database. For example, a new project manager can be inserted into this database.

2c. Deletion Anomaly:

Deletion anomaly can happen if we take out for example manager George F. Dort's out of the database.