KariAnn Harjo

ITSE 1450

Module 9 Discussion 1

*Problems in Mario’s File-Oriented System:*

Data Redundancy: In Mario's system, the same data (like Mechanic No, Name, and Pay Rate) is stored in multiple files (MECHANIC and JOB systems). This redundancy can lead to inconsistencies and errors, as seen with the discrepancy in Jim Jones’ pay rate.

Data Inconsistency: With data stored in different places, there's a higher risk of inconsistencies. For instance, if Jim Jones’ pay rate changes and is updated in one system but not the other, it leads to conflicting information.

Inefficiency in Data Management: Having to enter and update data in multiple systems is inefficient and time-consuming, increasing the likelihood of human error.

Difficulty in Data Retrieval and Reporting: Compiling reports or retrieving data that spans both the MECHANIC and JOB systems can be cumbersome and error-prone since the data needs to be collated from two separate sources.

*Why Danica’s DBMS Avoids These Problems:*

Elimination of Redundancy: Danica’s system uses a DBMS with linked tables, ensuring that each piece of data is stored only once. For example, an employee’s pay rate is stored in a single location, eliminating discrepancies.

Data Integrity: The relational database model ensures data integrity. Any updates to data (like a change in pay rate) are reflected across the entire database, maintaining consistency.

Efficiency in Data Handling: A DBMS allows for more efficient data handling, as it requires data to be entered and updated in only one place, reducing the time and effort required for data management.

Simplified Data Retrieval: With a joined table structure, retrieving and reporting data is simpler and more reliable, as all related data is seamlessly connected within the database.