Q.3 Compare and contrast the use of RDBMS and ORDBMS to implement the above.

ORDBMS is extension of RDBMS with object oriented programming concept. Both the data base system provide query capabilities to users.
Both system provides reliability, durability, concurrency control, recovery, and data integrity.
Using ORDBS system, it provides object oriented programming features such as reusability, robustness, convenience maintainability, and expressiveness.
Sometimes it is difficult to express many to many relationships using RDBMS.
ORDBS also support for extensibility, encapsulation, inheritance, polymorphism, dynamic binding, and user defined types. RDBMS that implement for Sonic Live Company will not be support to model real world static and dynamic relationships. When storing and manipulating complex data types such as nested objects, multi-value attributes, user defined types, unstructured data and relational models do, not support inheritance relationships.
In RDBMS, joining several tables require inefficient query processing times. Therefore, relational model does not scalable. It is difficult to map object-oriented application to relational model.

The cost of converting inheritance to relational tables will depend upon the number of object inherited from a superclass in addition to the number of attributes each object contains. This will decrease overall application performance since it involve joining tables. Joins are very expensive operation in RDBMS. In contrast, ORDBMS has the accessibility to relational table using object references rather than expensive relational joins. According to RDBMS for Soniclive Company, to query all the employee details, it is required to join manger table, sound engineer table and driver table. However, in ORDBMS can store all information in one object table where each row is a person object. Therefore, it is help to remove impedance mismatch between OOPLs and the relational models by using object tables instead of relational tables to store data.
ORDBMS facilitate to modeling real world objects and the relationship between them more easily.

The ability to create user define data types help to increase expressiveness and maintainability because object can stored directly in the data base without converting application object to

relational data types. By creating user defined types could be eliminate the complex application code that increase runtime.

ORDBMS used to store object data and methods that used to manipulate those data together, where RDBMS data is stored in relational tables and stored procedures are stored in the database schema and stores procedures, application procedures and SQL command used to manipulate the data. In contrast, ORDBMS used methods, stored with the data base attributes. By using database manipulation methods, it help to reduce the amount of application methods created by developers and ensure the correct data manipulation to database administrators.

As the main disadvantages of implementing ORDBMS are complexity and increasing cost.