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DISCUSSION BOARD 10

PART 1 (DUE WEDNESDAY)

- Explain the functionality and features of various database connectivity technologies such as ODBC, OLE, ADO.NET, and JDBC.
- Please share your idea with the group with a minimum of 250 words.

DATABASE CONNECTIVITY TECHNOLOGIES:

1. ODBC: OPEN DATABASE CONNECTIVITY

First widely adopted database middleware standard (Coronel & Morris, 2018, p. 695). ODBC connects applications to database management systems allowing those applications to access the data using SQL. The functionality of ODBC was lacking, so other interfaces were developed.

2. OLE: OBJECT LINKING AND EMBEDDING

Through Microsoft's Component Object Model, OLE-DB is database middleware that adds object-oriented functionality for accessing databases (Coronel & Morris, 2018, p. 697). Has the ability to access relational and non-relational databases. OLE is usually stacked with ODBC to reduce the amount of functionality they are forced to support.

3. ADO.NET: ACTIVEX DATA OBJECT

Data access component of .NET framework. Introduced two new features for distributed applications Datasets and XML support (Coronel & Morris, 2018, pp. 699-700). ADO.NET Provides access to any data source in a marked improvement from OLE-DB.

4. JDBC: JAVA DATABASE CONNECTIVITY

JDBC allows applications developed in the Java runtime environment to access & manipulate data using an API. One key consideration of this middleware is that it requires no configuration on the client's side (Coronel & Morris, 2018, pp. 703-704).

REFERENCES

Coronel, C., & Morris, S. (2018, January 1). *Database systems: Design, implementation, & management* (13th ed.). Cengage Learning.