# 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.