# Module: Data Access

# Quiz 01 – ADO.NET

1. What namespace houses the ado.net classes?
   1. System.ADO
      1. Incorrect – this is not a valid namespace
   2. System.DataAccess
      1. Incorrect – this is not a valid namespace
   3. **System.Data**
      1. Correct
   4. Ado.Net
      1. Incorrect – this is not a valid namespace
2. Which of the following are core ADO.NET classes? (Multi-select)
   1. **Connection**
      1. Correct
   2. **Command**
      1. Correct
   3. **DataReader**
      1. Correct
   4. **DataAdapter**
      1. Correct
3. Which namespace houses the classes for connection to Sql Server database?
   1. System.Data.OleDb
      1. Incorrect – this is for legacy databases
   2. **System.Data.SqlClient**
      1. Correct
   3. System.Data.OracleClient
      1. Incorrect – this is for Oracle Databases
   4. System.Data.Odbc
      1. Incorrect – this is a generic interface for supporting a database with no .NET provider
4. What information is common in a database connection string? (Multi-select)
   1. **Server name**
      1. Correct
   2. **Database name**
      1. Correct
   3. **Credentials**
      1. Correct
   4. Environment name
      1. Incorrect – connection strings will likely be different per environment, but this is not specified in the string itself
5. True or false: Microfsoft requires username and passoword credentials to be encrypted in the web.config.
   1. True
      1. Incorrect – this is recommended but not required
   2. **False**
      1. Correct
6. Which ADO.NET object holds the text of the SQL to be run?
   1. SqlConnection
      1. Incorrect – this object opens and closes the connection to the database
   2. **SqlCommand**
      1. Correct
   3. DataReader
      1. Incorrect – this houses the results of the query
   4. DataTable
      1. Incorrect – this houses the results of the query
7. Which sql command method would be used to run an Update statement?
   1. ExecuteReader
      1. Incorrect – this is for queries that return data
   2. **ExecuteNonQuery** 
      1. Correct
   3. ExecuteScalar
      1. Incorrect – this is for queries that return a single value
   4. ExecuteUpdate
      1. Incorrect – this is not a valid command method
8. True or false: the use of sql parameters will prevent dangerous sql injections attacks.
   1. **True**
      1. Correct
   2. False
      1. Incorrect – always use sql parameters, appending text to sql statements can allow sql injection attacks
9. True or false: it is possible to handle nullable database fields by using the question mark operator on model fields.
   1. **True**
      1. Correct
   2. False
      1. Incorrect – some C# types are not nullable by default and will require the question mark operator to be able to handle nullable database fields
10. Given a sql data reader named “dr”, what is the proper way to map an integer field named “Color”.
    1. var color = dr[“Color”];
       1. Incorrect – the datareader value must be cast to an integer type
    2. var color = (int)dr(“Color”);
       1. Incorrect – use brackets to get the field value, not parenthesis, as it is not a method
    3. **var color = (int)dr[“Color”];**
       1. Correct
    4. int color = dr[“Color”];
       1. Incorrect – even though the variable is declared as an int, we still have to cast the datareader value to int
11. True or false: ADO.NET SqlCommands can execute both text sql statements as well as stored procedures.
    1. **True**
       1. Correct
    2. False
       1. Incorrect – SqlCommands can execute both of these