In the previous chapters in this section, you learned about patterns that relate to SQL Server and Oracle Sources. In this chapter, I will move on to patterns that relate to sourcing data from the IBM DB2 database. DB2 describes a variety of databases, so it is essential to learn about the different databases I will discuss, as well as how to use each database as an Integration Services source.

As I described in Chapter 4, setting up a source entails four different objects: connection manager, provider, source component, and a source component query. While this remains true for the DB2 database, you need the additional first step of determining what type of database you own. DB2 has a number of types, providers, and ways to query data. As we look at the different patterns associated with each of these components, picture how they will work with other sources as well. Combining these steps will put you on the right path to pulling data from your DB2 database.

This chapter highlights patterns that may be of use while connecting to a DB2 database, but does not cover every possible scenario that you may run into in your environment.

DB2 Database Family

There are several different types of DB2 databases available on the market today. How you connect to the database depends on the DB2 version. DB2 separates its products into three groups:

- **DB2 for i**: This version has gone through multiple names over the years, including DB2 for AS/400, iSeries, System I, and Power Systems. DB2 is included in this server, so people commonly refer to this version when they think of DB2.

- **DB2 for z/OS**: This DB2 version is the main database available for the z/OS platform and is only available in 64-bit mode.

- **DB2 for LUW**: This version of DB2 is a later addition to the DB2 family. The Linux, UNIX, and Windows (LUW) version comes in multiple editions, depending on the purpose of your database instance. More information on these editions can be found on IBM’s website.

The different product types affect how you query data from Integration Services. As I walk you through setting up your connection, I will point out some of the differences you need to be aware of based on the product type. The first thing you need to do is pick a provider to use in your connection manager.
Selecting a DB2 Provider

The first step in pulling data from DB2 is to select a provider that can be used in your environment. There are two steps to accomplishing this:

1. Find Database Version
2. Pick Provider Vendor

Find Database Version

The first step in selecting your DB2 provider is to learn what version you own. Combining the version information with the product type will help you choose what provider to use. If you're not sure what type of server you're working with, you have a couple of options. The first option is to use a DB2 administration tool to check the properties of your instance. For example, if you use Control Center, you can right-click on the instance name, and click the About menu option. This will show something similar to Figure 6-1.

![Control Center About window showing database version and information](image)

*Figure 6-1. Control Center About window showing database version and information*

If you don’t have access to connect directly to the instance, you can run a query against the database instead to pull the same information. A sample query that shows this information can be seen in Listing 6-1, with the results shown in Figure 6-2.

**Listing 6-1. Sample query to show database version and information**

```sql
SELECT inst_name,
       release_num,
       service_level,
       bld_level,
       ptf,
       fixpack_num
FROM TABLE (sysproc.env_get_inst_info())
```