**1Record one data source that is not related to Excel from Tableau's list of available data sources.**

Tableau available data sources: File Systems such as CSV, Relational Systems such as Oracle, Sql Server, DB2. Cloud Systems such as Windows Azure, Google BigQuery, etc. Except for excel.

**2How does Tableau treat Excel sheets?**

Sheet in excel are treated same as table in the database.

**3How do we rename columns?**

We can double click and rename.

**4How do we change data types?**

Click the data type icon allowing to changes default data type for that column

**5What is the difference between connecting to data live or via an extract?**

Extracting data can connect slow database and import some of the data you want. This is not applied to data live connection. Connecting to data live when we want to Leverage the higher performance database capacity or get up to second changes data visualization in tableau.

**6What is a potential downside of a live data connection?**

Sometimes connecting to data, Resulting slow experience depending on database.

**7How does connecting via an extract help reduce response time?**

Extracting the data into tableau higher performance in memory high engine. We can choose only import some of data and bring some specific elements. For example, your database includes 10 years historical data, you may only require one year of history.

1. **What is the word for connecting two tables on a common field?**

Inner join

**9Personal Reflection Questions:**

Discuss your impression of working with data sources in Tableau.

tableau can import different data sources, and look up data easily without writing quay just draft the file and choose what function you want (join, filter etc) it is convenient, easy to use and get the results.

**Do you think working with an Excel spreadsheet source is more or less challenging than working with the other available data sources? Why?**

I think there is no difference, using tableau just need to upload the data. Each operation is same. If you understand each button function and what results you want, there is no difference.