

Importing Data in SQL

To import data compatible of comparable data formats (e.g. CSV, excel(.xls), etc...) or otherwise compatible with SQL database import capabilities data importing involves transferring data from external files into a SQL database. This evolves a file spreadsheet into a manageable seed for starting a database.

First steps

1. Prepare data
 - check data for consistency, correctness, and completeness.
 - check format can be imported into SQL database
2. Create target table
 - Define the schema; the resulting table in the SQL database where the data will be imported must be created with the appropriate columns and data types that match the structure of the incoming data.

```
CREATE TABLE USER_TABLE (  
first_name VARCHAR2(50),  
last_name VARCHAR2(50),  
weight FLOAT,  
age INTEGER  
);
```

Using LOAD DATA INFILE

```
LOAD DATA INFILE '<path/to/your/file>.csv'  
INTO TABLE your_table  
FIELDS TERMINATED BY ','  
ENCLOSED BY ''''  
LINES TERMINATED BY '\n'  
(first_name, last_name, weight, age);
```

Using a GUI (SQL Developer):

File Selection: Choose your CSV file to be imported.
Mapping Columns: Match the CSV columns with the table columns.
Final Import: Review and execute the import process.

Using SQL Commands

Load data with SQL*Loader *SQLLoader in Oracle* - *SQLLoader* is a utility for building loading data into an Oracle database - create a control file that describes how to load the data then run the SQL*Loader command.

Handling Common Issues

Data type mismatch: Ensure that the data types in the file match those in the table schema Missing Values Handle 'NULL' values properly if your file contains missing data Encoding Issues: Make sure the file encoding (UTF-8 etc...) is compatible with the database