# CSV file to MySQL DB Insert

# Introduction

This process will take the contents of a CSV file, create an MySQL insert statement and execute it. See [CSV File – Example Content](#_Json_File_–) for example input. The table name is provided to the process as parameters, see [Parameters](#_Parameters) below.

# Triggering

| **Type** | **System** | **Settings** | **Comments** |
| --- | --- | --- | --- |
| Manual | Frends |  |  |

# Process Variables

| **Name** | **Comment** |
| --- | --- |
| FilePath | Full path of the target file to be read |
| FileName | Name of the target file to be read |
| ServerAddress | Address of the SFTP Server |
| ServerUser | User for the SFTP Server |
| ServerPassword | Password the SFTP Server |
| TableName | Name of the database table into which the data is to be inserted |
| ServerAddress | Address of the SFTP Server |
| ConnectionString | Connection details for the database. |

# Process Details

## Process Diagram



## Process Steps

| **Step No** | **Process Step** | **Implementation Details** |
| --- | --- | --- |
| 1 | Process starts | A manual trigger is activated with the [Process Variables](#_Parameters) described above. |
| 2 | Read File Contents from SFTP Server | Use the SFTP ReadFile task to get the contents of the CSV file |
| 3 | Was the read successful? | If the “Success” field in the result from the file read in **step 2** was false go to the next step (**step 4**), otherwise continue from **step 5**. |
| 4 | Stop processing and return error message | Return a meaningful, plain English error message. |
| 5 | Convert the CSV content to Json | Use the ConvertToJSON task to convert the CSV data to Json. |
| 6 | Build Insert Statement | Create the Insert statement using the TableName Process Variable. For the Columns definitions use property name from the Json created in  **step 5** Use the property value from each line from the Json created in **step 5** for the value clause**.**  |
| 7 | MySQL ExecuteQuery | Execute the Insert statement from **step 6** on the database using the MySQL ExecuteQuery task. |
| 8 | Was the Insert successful? | If the “Success” field in the result from the execution of the Insert in **step 7** was false go to the next step (**step 9**), otherwise continue from **step 10**. |
| 9 | Stop processing and return error message | Return a meaningful, plain English error message. |
| 10 | Stop processing | Terminate the process and return success message. |

# Solution components

| **Subprocess** | **Description** | **Tags** |
| --- | --- | --- |
| Error Handler | Handles any error that occurs |  |

# Data flow

## Environment variables

These are process specific environment variables. General environment variables can be found at <TBD>

| **Variable name** | **Description** | **Dev** | **Test** | **Prod** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

## Interfaces and data transfers

### SFTP File Read – Step 2

|  |  |
| --- | --- |
| Parameter Name | Source |
| Input - Path | [Process Variables](#_Parameters)  – FilePath + FileName i.e. /input/order.CSV |
| Connection - Address | [Process Variables](#_Parameters)  - ServerAddress |
| Connection - UserName | [Process Variables](#_Parameters) - ServerUser |
| Connection - Password | [Process Variables](#_Parameters)  - ServerPassword |

Example CSV content.

email;address1;address2;country;state;city;zipcode;phone;firstname;lastname;title

dave21@frends.com;1440 River Drive;" #100";USA;CA;Rivertown;12345;123456789;Dave;Twenty-One;Mr

dave21@frends.com;1440 River Drive;" #100";USA;CA;Rivertown;12345;123456789;Dave;Twenty-One;Mr

dave22@frends.com;1440 River Drive;" #101";USA;CA;Rivertown;12345;123487689;Dave;Twenty-One;Mr

dave23@frends.com;1440 River Drive;" #102";USA;CA;Rivertown;12345;563888888;Dave;Twenty-One;Mr

dave24@frends.com;1440 River Drive;" #103";USA;CA;Rivertown;12345;122222229;Dave;Twenty-One;Mr

dave25@frends.com;1440 River Drive;" #104";USA;CA

………

#### Sample Error Message ****- Step 4****

**“An error occurred reading the input file <<FileName>>. Please contact support.”**

**<<FileName>> =** [Process Variables](#_Parameters)  **– FileName.**

#### ****Sample Json Data – step 5****

**{**

 **"Success": true,**

 **"Json": [**

 **{**

 **"email": "dave21@frends.com",**

 **"address1": "1440 River Drive",**

 **"address2": " #100",**

 **"country": "USA",**

 **"state": "CA",**

 **"city": "Rivertown",**

 **"zipcode": "12345",**

 **"phone": "123456789",**

 **"firstname": "Dave",**

 **"lastname": "Twenty-One",**

 **"title": "Mr"**

 **},**

 **{**

 **"email": "dave21@frends.com",**

 **"address1": "1440 River Drive",**

 **"address2": " #100",**

 **"country": "USA",**

 **"state": "CA",**

 **"city": "Rivertown",**

 **"zipcode": "12345",**

 **"phone": "123456789",**

 **"firstname": "Dave",**

 **"lastname": "Twenty-One",**

 **"title": "Mr"**

 **},**

 **{**

 **"email": "dave22@frends.com",**

 **"address1": "1440 River Drive",**

 **"address2": " #101",**

 **"country": "USA",**

 **"state": "CA",**

 **"city": "Rivertown",**

 **.........**

#### MySQL ExecuteQuery ****- Step 7****

|  |  |
| --- | --- |
| **Parameter Name** | **Source** |
| Input – Connection string | Process Variable - ConnectionString |
| Input - Query | Insert statement created in **step 7** |

##### Query Example

INSERT INTO contact (email, address1, address2, country, state, city, zipcode, phone, firstname, lastname, title)

 VALUES ("user1@frends.com", "street 1", "street 2", "Finland", "Uusimaa", "Espoo", "02700", "0+358407788990", "Joe", "Blogs", "Mr"){}

#### Sample Error Message ****- Step 9****

**“An error occurred inserting the data into <<** TableName **>>. Please contact support.”**

**<<** TableName **>> =** [Process Variables](#_Parameters)  **–** TableName**.**

#### Sample Success Message ****- Step 10****

**“Data was successfully inserted into <<** TableName **>>.”**

**<<** TableName **>> =** [Process Variables](#_Parameters)  **–** TableName**.**