University of Salford MANCHESTER

IRIS : DATA MASKING SOFTWARE

Step by step guide

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ARBITRAGE FINANCIAL PROJECT SCOPE

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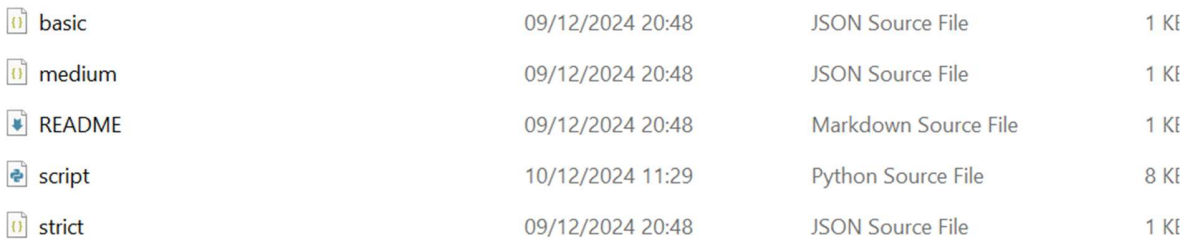
OVERVIEW

1. Acquire and download project

Project must be extracted from the zip folder, you should then see all 5 files we have provided



basic	09/12/2024 20:48	JSON Source File	1 KB
medium	09/12/2024 20:48	JSON Source File	1 KB
README	09/12/2024 20:48	Markdown Source File	1 KB
script	10/12/2024 11:29	Python Source File	8 KB
strict	09/12/2024 20:48	JSON Source File	1 KB

Note : This project has been developed specifically for use on Windows computers

Technical explanation of files :

- *3 JSON files "Basic", "Medium", "Strict" – these essentially work as individual templates and specify the level and specific requirements of data masking. These 3 come preconfigured and a user with technical ability will be able to create additional JSON files in the same format to configure the data masking techniques however they like.*
- *"script" Python file : This is the main code for our project, everything is run through with this script*

2. Ensure you have Python & the necessary library installed

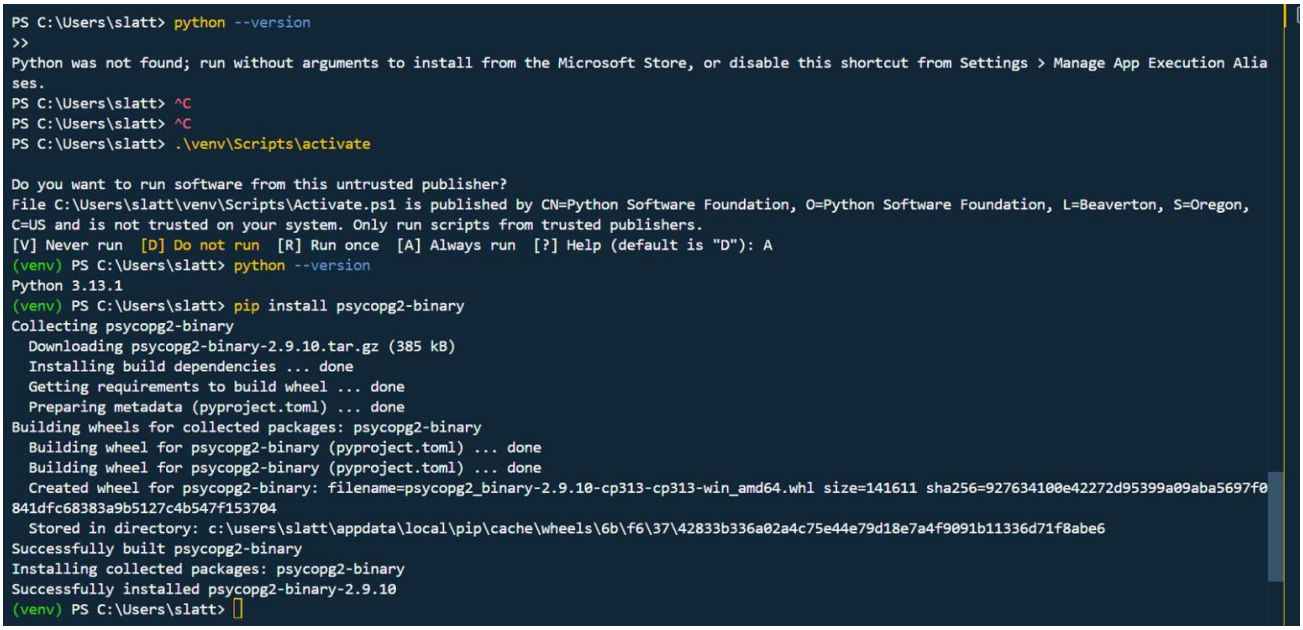
Ensure you have a version of python 3 installed on your PC

Then ensure you have installed the package "psycopg2"

To do this, open up a command line either directly through Windows PowerShell or a interpreter like the one In Visual studio code

Then direct to an appropriate directory on local storage and type this command (requires internet connection) : pip install psycopg2

You can then verify the installation by typing "pip show psycopg2"



3. Install & configure your Source database

Open up a database client such as PostgreSQL or equivalent

Below is a short guide to set up a Postgres SQL system, in the situation you have not already created a database, if so you can simply use this and make some small changes when starting our software which is shown in later steps

- Install PosrgreSQL and open the pgadmin4 program within the install folder, this PgAdmin 4 is the software used to manage the database in a visual interface

4. Open command Line

We must open the command line . Open the script by loading the script into an interpreter and pressing the run button. Python IDLE or Visual studio code are both recommended for this, Assuming you are running the script directly and not through any aforementioned database management software of your own

You will need to input the following data when calling the script

File path of source Postgres database

Postgres Username & Password you created

File path of your JSON file of choice to select your level of data masking

Textual example of what you might put into command line (edit Accirdingly) :

“ python C:\Users\slatt\OneDrive\Desktop\group programming Agile tech Dec 2024\IRIS local\script.py localhost postgres postgres 123 public.source localhost TargetDB postgres 123 target.masked_data C:\Users\slatt\OneDrive\Desktop\group programming Agile tech Dec 2024\IRIS local\medium.json “

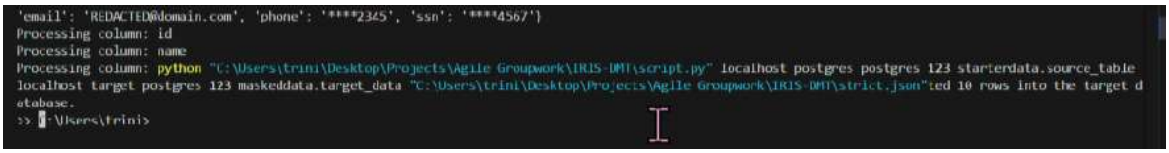
If you are having trouble finding a file path : simply locate the file manually in your file explorer then right click the file selecting the “copy as path” option. Paste this into the CLI.

5. Configure script

As per request Our software is entirely controlled by the command line.

6. Run Script

Your data should now have been masked, you should see confirmation in the CLI script like as seen below



7. Locating target database

Describe any specific components that are excluded from this project.

ADDITIONAL INFORMATION

If you have any queries or issues, please feel free to contact us via email at any time.