To connect to a SQL Server from Ubuntu using Windows Authentication, you'll need to use the FreeTDS library, which provides an implementation of the Tabular Data Stream (TDS) protocol that SQL Server uses. This allows you to connect to SQL Server databases using Windows Authentication from a Linux system. Here's how you can do it:

Install FreeTDS:

Open a terminal on your Ubuntu machine and run the following command to install FreeTDS:

bash

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sudo apt-get update

sudo apt-get install freetds-bin freetds-dev

Configure FreeTDS:

Once FreeTDS is installed, you need to configure it to connect to your SQL Server using Windows Authentication. Edit the FreeTDS configuration file by running:

bash

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sudo nano /etc/freetds/freetds.conf

Add an entry for your SQL Server instance. Replace <server> with your server's name and <instance> with the SQL Server instance name:

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[myserver]

host = <server>

port = 1433

tds version = 7.4

client charset = UTF-8

Test the Connection:

Test the connection to your SQL Server using tsql (a command-line utility that comes with FreeTDS):

bash

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tsql -S myserver -U <username> -P <password>

Replace <username> and <password> with your Windows Authentication credentials.

Connect to SQL Server using Python (Optional):

You can also use a programming language like Python to connect to the SQL Server using the pyodbc library, which supports connecting to SQL Server with FreeTDS. Install pyodbc using:

bash

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pip install pyodbc

Then, you can use a script like the following to connect to your SQL Server:

python

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import pyodbc

conn = pyodbc.connect('DRIVER=FreeTDS;SERVER=myserver;PORT=1433;DATABASE=mydb;UID=<username>;PWD=<password>;TDS\_Version=7.4')

cursor = conn.cursor()

cursor.execute('SELECT \* FROM your\_table')

for row in cursor.fetchall():

print(row)

cursor.close()

conn.close()

Replace <server>, <username>, <password>, and other details with your actual SQL Server information. Remember that this approach requires the proper setup and configuration of FreeTDS as described earlier.

Please note that while connecting to SQL Server from Linux using Windows Authentication is possible, it may involve some additional considerations and configuration, especially in cross-platform environments. Be sure to consult your organization's IT policies and security guidelines before implementing this solution.