Instalación de la funcionalidad para Full Text Search en el contenedor de Docker con el SQL Server

# Pasos para ejecutar los comandos dentro de tu contenedor existente:

## Accede al contenedor con privilegios de root

El contenedor tiene que estar en ejecución.

Ejecuta el siguiente comando para acceder al contenedor y entrar en una sesión interactiva de bash como root (-u 0 significa ejecutar el comando como el usuario root):

docker exec -u 0 -it sqlserver-fts /bin/bash

Esto te dará una terminal dentro del contenedor con privilegios de root.

## Actualiza los paquetes dentro del contenedor

Una vez que estés dentro del contenedor, ejecuta:

apt-get update

## Instala las herramientas necesarias (curl, apt-transport-https, gnupg)

Ejecuta este comando para instalar las herramientas necesarias para poder añadir el repositorio de Microsoft:

apt-get install -yq curl apt-transport-https gnupg

## Añade la clave y el repositorio de Microsoft para SQL Server 2022

Ejecuta estos comandos para añadir la clave GPG de Microsoft y el repositorio de SQL Server:

curl https://packages.microsoft.com/keys/microsoft.asc | apt-key add -

curl https://packages.microsoft.com/config/ubuntu/22.04/mssql-server-2022.list | tee /etc/apt/sources.list.d/mssql-server-2022.list

## Actualiza los índices de paquetes nuevamente

Vuelve a ejecutar apt-get update para asegurarte de que el repositorio de Microsoft esté disponible:

apt-get update

## Instala el paquete mssql-server-fts dentro del contenedor

Ahora puedes instalar la función de Full-Text Search para SQL Server:

apt-get install -y mssql-server-fts

## Limpia los archivos temporales

Finalmente, limpia los archivos temporales para liberar espacio:

apt-get clean && rm -rf /var/lib/apt/lists/\* && rm -rf /\*.deb

## Reinicia el contenedor

Sal de la sesión interactiva de bash y reinicia el contenedor:

exit

docker restart sqlserver-fts

(el reinicio también podemos hacerlo **desde la aplicación de Docker**)

## Resultado esperado

Este procedimiento debe instalar las bibliotecas y la funcionalidad de Full-Text Search directamente en el contenedor existente. Este método es eficiente si ya tenemos un contenedor corriendo y preferimos no crear uno nuevo.

Esto es lo que fue devolviendo el terminal durante el proceso:

PS C:\Projects\sqlserver2022-fts\_docker> **docker exec -u 0 -it sqlserver /bin/bash**

root@c1951184dfa6:/# **apt-get update**

Hit:1 http://archive.ubuntu.com/ubuntu jammy InRelease

Get:2 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]

Get:3 https://packages.microsoft.com/ubuntu/22.04/prod jammy InRelease [3632 B]

Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]

Get:5 https://packages.microsoft.com/ubuntu/22.04/prod jammy/main arm64 Packages [43.4 kB]

Get:6 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]

Get:7 https://packages.microsoft.com/ubuntu/22.04/prod jammy/main armhf Packages [15.5 kB]

Get:8 https://packages.microsoft.com/ubuntu/22.04/prod jammy/main amd64 Packages [173 kB]

Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1440 kB]

Get:10 https://packages.microsoft.com/ubuntu/22.04/prod jammy/main all Packages [1261 B]

Get:11 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [51.8 kB]

Get:12 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2585 kB]

Get:13 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [1150 kB]

Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [3181 kB]

Get:15 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [81.4 kB]

Get:16 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [33.7 kB]

Get:17 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [2308 kB]

Get:18 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [44.7 kB]

Get:19 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [3097 kB]

Fetched 14.6 MB in 3s (4948 kB/s)

Reading package lists... Done

root@c1951184dfa6:/# **apt-get install -yq curl apt-transport-https gnupg**

Reading package lists...

Building dependency tree...

Reading state information...

The following additional packages will be installed:

dirmngr gnupg-l10n gnupg-utils gpg gpg-agent gpg-wks-client gpg-wks-server gpgconf gpgsm libassuan0 libcurl4

libksba8 libnpth0 pinentry-curses

Suggested packages:

dbus-user-session libpam-systemd pinentry-gnome3 tor parcimonie xloadimage scdaemon pinentry-doc

The following NEW packages will be installed:

dirmngr gnupg gnupg-l10n gnupg-utils gpg gpg-agent gpg-wks-client gpg-wks-server gpgconf gpgsm libassuan0 libksba8

libnpth0 pinentry-curses

The following packages will be upgraded:

apt-transport-https curl libcurl4

3 upgraded, 14 newly installed, 0 to remove and 28 not upgraded.

Need to get 2794 kB of archives.

After this operation, 5839 kB of additional disk space will be used.

Get:1 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 apt-transport-https all 2.4.13 [1510 B]

Get:2 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 curl amd64 7.81.0-1ubuntu1.18 [194 kB]

Get:3 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libcurl4 amd64 7.81.0-1ubuntu1.18 [289 kB]

Get:4 http://archive.ubuntu.com/ubuntu jammy/main amd64 libassuan0 amd64 2.5.5-1build1 [38.2 kB]

Get:5 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gpgconf amd64 2.2.27-3ubuntu2.1 [94.2 kB]

Get:6 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libksba8 amd64 1.6.0-2ubuntu0.2 [119 kB]

Get:7 http://archive.ubuntu.com/ubuntu jammy/main amd64 libnpth0 amd64 1.6-3build2 [8664 B]

Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 dirmngr amd64 2.2.27-3ubuntu2.1 [293 kB]

Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gnupg-l10n all 2.2.27-3ubuntu2.1 [54.4 kB]

Get:10 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gnupg-utils amd64 2.2.27-3ubuntu2.1 [308 kB]

Get:11 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gpg amd64 2.2.27-3ubuntu2.1 [519 kB]

Get:12 http://archive.ubuntu.com/ubuntu jammy/main amd64 pinentry-curses amd64 1.1.1-1build2 [34.4 kB]

Get:13 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gpg-agent amd64 2.2.27-3ubuntu2.1 [209 kB]

Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gpg-wks-client amd64 2.2.27-3ubuntu2.1 [62.7 kB]

Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gpg-wks-server amd64 2.2.27-3ubuntu2.1 [57.5 kB]

Get:16 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gpgsm amd64 2.2.27-3ubuntu2.1 [197 kB]

Get:17 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gnupg all 2.2.27-3ubuntu2.1 [315 kB]

Fetched 2794 kB in 1s (1972 kB/s)

debconf: delaying package configuration, since apt-utils is not installed

(Reading database ... 9979 files and directories currently installed.)

Preparing to unpack .../00-apt-transport-https\_2.4.13\_all.deb ...

Unpacking apt-transport-https (2.4.13) over (2.4.12) ...

Preparing to unpack .../01-curl\_7.81.0-1ubuntu1.18\_amd64.deb ...

Unpacking curl (7.81.0-1ubuntu1.18) over (7.81.0-1ubuntu1.16) ...

Preparing to unpack .../02-libcurl4\_7.81.0-1ubuntu1.18\_amd64.deb ...

Unpacking libcurl4:amd64 (7.81.0-1ubuntu1.18) over (7.81.0-1ubuntu1.16) ...

Selecting previously unselected package libassuan0:amd64.

Preparing to unpack .../03-libassuan0\_2.5.5-1build1\_amd64.deb ...

Unpacking libassuan0:amd64 (2.5.5-1build1) ...

Selecting previously unselected package gpgconf.

Preparing to unpack .../04-gpgconf\_2.2.27-3ubuntu2.1\_amd64.deb ...

Unpacking gpgconf (2.2.27-3ubuntu2.1) ...

Selecting previously unselected package libksba8:amd64.

Preparing to unpack .../05-libksba8\_1.6.0-2ubuntu0.2\_amd64.deb ...

Unpacking libksba8:amd64 (1.6.0-2ubuntu0.2) ...

Selecting previously unselected package libnpth0:amd64.

Preparing to unpack .../06-libnpth0\_1.6-3build2\_amd64.deb ...

Unpacking libnpth0:amd64 (1.6-3build2) ...

Selecting previously unselected package dirmngr.

Preparing to unpack .../07-dirmngr\_2.2.27-3ubuntu2.1\_amd64.deb ...

Unpacking dirmngr (2.2.27-3ubuntu2.1) ...

Selecting previously unselected package gnupg-l10n.

Preparing to unpack .../08-gnupg-l10n\_2.2.27-3ubuntu2.1\_all.deb ...

Unpacking gnupg-l10n (2.2.27-3ubuntu2.1) ...

Selecting previously unselected package gnupg-utils.

Preparing to unpack .../09-gnupg-utils\_2.2.27-3ubuntu2.1\_amd64.deb ...

Unpacking gnupg-utils (2.2.27-3ubuntu2.1) ...

Selecting previously unselected package gpg.

Preparing to unpack .../10-gpg\_2.2.27-3ubuntu2.1\_amd64.deb ...

Unpacking gpg (2.2.27-3ubuntu2.1) ...

Selecting previously unselected package pinentry-curses.

Preparing to unpack .../11-pinentry-curses\_1.1.1-1build2\_amd64.deb ...

Unpacking pinentry-curses (1.1.1-1build2) ...

Selecting previously unselected package gpg-agent.

Preparing to unpack .../12-gpg-agent\_2.2.27-3ubuntu2.1\_amd64.deb ...

Unpacking gpg-agent (2.2.27-3ubuntu2.1) ...

Selecting previously unselected package gpg-wks-client.

Preparing to unpack .../13-gpg-wks-client\_2.2.27-3ubuntu2.1\_amd64.deb ...

Unpacking gpg-wks-client (2.2.27-3ubuntu2.1) ...

Selecting previously unselected package gpg-wks-server.

Preparing to unpack .../14-gpg-wks-server\_2.2.27-3ubuntu2.1\_amd64.deb ...

Unpacking gpg-wks-server (2.2.27-3ubuntu2.1) ...

Selecting previously unselected package gpgsm.

Preparing to unpack .../15-gpgsm\_2.2.27-3ubuntu2.1\_amd64.deb ...

Unpacking gpgsm (2.2.27-3ubuntu2.1) ...

Selecting previously unselected package gnupg.

Preparing to unpack .../16-gnupg\_2.2.27-3ubuntu2.1\_all.deb ...

Unpacking gnupg (2.2.27-3ubuntu2.1) ...

Setting up libksba8:amd64 (1.6.0-2ubuntu0.2) ...

Setting up apt-transport-https (2.4.13) ...

Setting up libnpth0:amd64 (1.6-3build2) ...

Setting up libassuan0:amd64 (2.5.5-1build1) ...

Setting up gnupg-l10n (2.2.27-3ubuntu2.1) ...

Setting up gpgconf (2.2.27-3ubuntu2.1) ...

Setting up libcurl4:amd64 (7.81.0-1ubuntu1.18) ...

Setting up curl (7.81.0-1ubuntu1.18) ...

Setting up gpg (2.2.27-3ubuntu2.1) ...

Setting up gnupg-utils (2.2.27-3ubuntu2.1) ...

Setting up pinentry-curses (1.1.1-1build2) ...

Setting up gpg-agent (2.2.27-3ubuntu2.1) ...

Setting up gpgsm (2.2.27-3ubuntu2.1) ...

Setting up dirmngr (2.2.27-3ubuntu2.1) ...

Setting up gpg-wks-server (2.2.27-3ubuntu2.1) ...

Setting up gpg-wks-client (2.2.27-3ubuntu2.1) ...

Setting up gnupg (2.2.27-3ubuntu2.1) ...

Processing triggers for libc-bin (2.35-0ubuntu3.8) ...

/sbin/ldconfig.real: /opt/mssql/lib/libc++.so.1 is not a symbolic link

/sbin/ldconfig.real: /opt/mssql/lib/libc++abi.so.1 is not a symbolic link

root@c1951184dfa6:/# **curl https://packages.microsoft.com/keys/microsoft.asc | apt-key add -**

% Total % Received % Xferd Average Speed Time Time Time Current

Dload Upload Total Spent Left Speed

0 0 0 0 0 0 0 0 --:--:-- --:--:-- --:--:-- 0Warning: apt-key is deprecated. Manage keyring files in trusted.gpg.d instead (see apt-key(8)).

100 983 100 983 0 0 4388 0 --:--:-- --:--:-- --:--:-- 4408

OK

root@c1951184dfa6:/# **curl https://packages.microsoft.com/config/ubuntu/22.04/mssql-server-2022.list | tee /etc/apt/sources.list.d/mssql-server-2022.list**

% Total % Received % Xferd Average Speed Time Time Time Current

Dload Upload Total Spent Left Speed

100 101 100 101 0 0 301 0 --:--:-- --:--:-- --:--:-- 302

deb [arch=amd64,armhf,arm64] https://packages.microsoft.com/ubuntu/22.04/mssql-server-2022 jammy main

root@c1951184dfa6:/# **apt-get update**

Hit:1 https://packages.microsoft.com/ubuntu/22.04/prod jammy InRelease

Hit:2 http://security.ubuntu.com/ubuntu jammy-security InRelease

Hit:3 http://archive.ubuntu.com/ubuntu jammy InRelease

Get:4 https://packages.microsoft.com/ubuntu/22.04/mssql-server-2022 jammy InRelease [3624 B]

Hit:5 http://archive.ubuntu.com/ubuntu jammy-updates InRelease

Get:6 https://packages.microsoft.com/ubuntu/22.04/mssql-server-2022 jammy/main amd64 Packages [3987 B]

Hit:7 http://archive.ubuntu.com/ubuntu jammy-backports InRelease

Fetched 7611 B in 0s (15.5 kB/s)

Reading package lists... Done

root@c1951184dfa6:/# **apt-get install -y mssql-server-fts**

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

The following additional packages will be installed:

mssql-server

The following NEW packages will be installed:

mssql-server mssql-server-fts

0 upgraded, 2 newly installed, 0 to remove and 28 not upgraded.

Need to get 512 MB of archives.

After this operation, 1889 MB of additional disk space will be used.

Get:1 https://packages.microsoft.com/ubuntu/22.04/mssql-server-2022 jammy/main amd64 mssql-server amd64 16.0.4140.3-1 [275 MB]

Get:2 https://packages.microsoft.com/ubuntu/22.04/mssql-server-2022 jammy/main amd64 mssql-server-fts amd64 16.0.4140.3-1 [237 MB]

Fetched 512 MB in 6min 27s (1322 kB/s)

debconf: delaying package configuration, since apt-utils is not installed

Selecting previously unselected package mssql-server.

(Reading database ... 10192 files and directories currently installed.)

Preparing to unpack .../mssql-server\_16.0.4140.3-1\_amd64.deb ...

debconf: unable to initialize frontend: Dialog

debconf: (No usable dialog-like program is installed, so the dialog based frontend cannot be used. at /usr/share/perl5/Debconf/FrontEnd/Dialog.pm line 78.)

debconf: falling back to frontend: Readline

debconf: unable to initialize frontend: Readline

debconf: (Can't locate Term/ReadLine.pm in @INC (you may need to install the Term::ReadLine module) (@INC contains: /etc/perl /usr/local/lib/x86\_64-linux-gnu/perl/5.34.0 /usr/local/share/perl/5.34.0 /usr/lib/x86\_64-linux-gnu/perl5/5.34 /usr/share/perl5 /usr/lib/x86\_64-linux-gnu/perl-base /usr/lib/x86\_64-linux-gnu/perl/5.34 /usr/share/perl/5.34 /usr/local/lib/site\_perl) at /usr/share/perl5/Debconf/FrontEnd/Readline.pm line 7.)

debconf: falling back to frontend: Teletype

Unpacking mssql-server (16.0.4140.3-1) ...

Selecting previously unselected package mssql-server-fts.

Preparing to unpack .../mssql-server-fts\_16.0.4140.3-1\_amd64.deb ...

Unpacking mssql-server-fts (16.0.4140.3-1) ...

Setting up mssql-server (16.0.4140.3-1) ...

debconf: unable to initialize frontend: Dialog

debconf: (No usable dialog-like program is installed, so the dialog based frontend cannot be used. at /usr/share/perl5/Debconf/FrontEnd/Dialog.pm line 78.)

debconf: falling back to frontend: Readline

debconf: unable to initialize frontend: Readline

debconf: (Can't locate Term/ReadLine.pm in @INC (you may need to install the Term::ReadLine module) (@INC contains: /etc/perl /usr/local/lib/x86\_64-linux-gnu/perl/5.34.0 /usr/local/share/perl/5.34.0 /usr/lib/x86\_64-linux-gnu/perl5/5.34 /usr/share/perl5 /usr/lib/x86\_64-linux-gnu/perl-base /usr/lib/x86\_64-linux-gnu/perl/5.34 /usr/share/perl/5.34 /usr/local/lib/site\_perl) at /usr/share/perl5/Debconf/FrontEnd/Readline.pm line 7.)

debconf: falling back to frontend: Teletype

Setting up mssql-server-fts (16.0.4140.3-1) ...

debconf: unable to initialize frontend: Dialog

debconf: (No usable dialog-like program is installed, so the dialog based frontend cannot be used. at /usr/share/perl5/Debconf/FrontEnd/Dialog.pm line 78.)

debconf: falling back to frontend: Readline

debconf: unable to initialize frontend: Readline

debconf: (Can't locate Term/ReadLine.pm in @INC (you may need to install the Term::ReadLine module) (@INC contains: /etc/perl /usr/local/lib/x86\_64-linux-gnu/perl/5.34.0 /usr/local/share/perl/5.34.0 /usr/lib/x86\_64-linux-gnu/perl5/5.34 /usr/share/perl5 /usr/lib/x86\_64-linux-gnu/perl-base /usr/lib/x86\_64-linux-gnu/perl/5.34 /usr/share/perl/5.34 /usr/local/lib/site\_perl) at /usr/share/perl5/Debconf/FrontEnd/Readline.pm line 7.)

debconf: falling back to frontend: Teletype

+-------------------------------------------------------------------------------------+

Please restart mssql-server to enable Microsoft SQL Server Full Text Search.

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Processing triggers for libc-bin (2.35-0ubuntu3.8) ...

/sbin/ldconfig.real: /opt/mssql/lib/libc++.so.1 is not a symbolic link

/sbin/ldconfig.real: /opt/mssql/lib/libc++abi.so.1 is not a symbolic link

root@c1951184dfa6:/# **apt-get clean && rm -rf /var/lib/apt/lists/\* && rm -rf /\*.deb**