Documentation

Required Installation for rhel Server:

Python 3.10
Nodejs 20
postgres 17
Grafana
Vs-code

Installing Python 3.10 on RHEL 8

Prerequisites

Before you begin, make sure you have sudo privileges on your system.

Steps

1. Install Required Packages

   First, install the necessary packages for compiling Python from the source:

   ```
   sudo dnf install wget yum-utils make gcc openssl-devel bzip2-devel libffi-devel zlib-devel
   ```

2. Download Python 3.10 Source Code

   Download the source code for Python 3.10 from the official Python website:

   ```
   wget https://www.python.org/ftp/python/3.10.16/Python-3.10.16.tgz
   ```

3. Extract the Archive

   Extract the downloaded archive:

   ```
   tar xzf Python-3.10.16.tgz
   ```

4. Prepare the Source Code

   Navigate to the extracted directory and configure the source code:

   ```
   cd Python-3.10.16
   ```

   ```
   sudo ./configure --with-system-ffi --with-computed-gotos --enable-loadable-sqlite-extensions
   ```

   ```
   ./configure --enable-optimizations
   ```

5. Compile and Install

   Compile and install Python 3.10:

   ```
   sudo make -j $(nproc)
   sudo make altinstall
   ```

6. Verify the Installation

Check the installed Python version:

```
python3.10 --version
```

7. Update the Temporary PATH

Add the installation directory to your PATH:

```
export PATH=/usr/local/bin:$PATH
```

Verify the Python 3.10 installation again:

```
python3.10 --version
```

8. Make PATH Update Permanent

Update .bashrc:

```
echo 'export PATH=/usr/local/bin:$PATH' >> ~/.bashrc
```

```
source ~/.bashrc
```

Verify the Installation Again:

```
python3.10 --version
```

Troubleshooting "command not found" Error for Python 3.10

Introduction

After installing Python 3.10 on Red Hat Enterprise Linux 8.10, you might encounter a "**command not found**" error when trying to verify the installation in the **step no.6**. This guide will help you troubleshoot and resolve this issue.

1. Verify Installation Path

Ensure that Python 3.10 is installed in the expected directory:

```
sudo find / -name "python3.10"
```

Example output:

```
/usr/local/lib/python3.10
/usr/local/include/python3.10
/usr/local/bin/python3.10
```

2. Temporarily Update the PATH

```
export PATH=/usr/local/bin:$PATH
```

Verify the Python 3.10 Installation

```
python3.10 --version
```

3. Follow the steps from **Step 8**

Installing Node.js20 on RHEL 8.10

Prerequisites

Make sure you have sudo privileges on your system.

Steps

1. Enable the Node.js20 Module

   First, enable the Node.js20 module:

   sudo dnf module enable nodejs:20

2. Install Node.js20

   Install Node.js20 using dnf:

   sudo dnf install nodejs

3. Verify the Installation

   Check the installed Node.jsversion:

   node --version

   example output:

   v20.18.2

Installing Postgres on RHEL 8

Prerequisites

Make sure you have sudo privileges on your system.

Steps

1. Add the PostgreSQL Repository

   First, add the PostgreSQL repository to your system:

   sudo dnf install -y https://download.postgresql.org/pub/repos/yum/reporpms/EL-8-x86_64/pgdg-redhat-repo-latest.noarch.rpm

2. Disable the Default PostgreSQL Module

   Disable the default PostgreSQL module to avoid conflicts:

   sudo dnf -qy module disable postgresql

3. Install PostgreSQL 17

   Install PostgreSQL 17 using dnf:

   ```
   sudo dnf install -y postgresql17-server
   ```

4. Initialize the Database

   Initialize the PostgreSQL database:

   ```
   sudo /usr/pgsql-17/bin/postgresql-17-setup initdb
   ```

5. Enable and Start PostgreSQL Service

   Enable and start the PostgreSQL service:

   ```
   sudo systemctl enable postgresql-17
   sudo systemctl start postgresql-17
   ```

   Check the status of PostgreSQL service:

   ```
   sudo systemctl status postgresql-17
   ```

6. Verify the Installation

   Check the installed PostgreSQL version:

   ```
   /usr/pgsql-17/bin/psql --version
   ```

Installing Grafana on RHEL 8

Prerequisites

Make sure you have sudo privileges on your system.

Steps

1. Add the Grafana Repository

   First, add the Grafana repository to your system:

   ```
   sudo dnf install -y https://rpm.grafana.com/grafana-rpm-release-1.0.0-1.noarch.rpm
   ```

2. Install Grafana

   Install Node.js20 using dnf:

   ```
   sudo dnf install grafana
   ```

3. Start and Enable Grafana Service

   Start the Grafana service and enable it to start on boot:

   ```
   sudo systemctl start grafana-server
   ```

   ```
   sudo systemctl enable grafana-server
   ```

4. Verify the Installation

   Check the status of the Grafana service:

   ```
   sudo systemctl status grafana-server
   ```

Installing vs-code on RHEL 8

Prerequisites

Make sure you have sudo privileges on your system.

Steps

1. Add the Microsoft Repository

   First, you need to add the Microsoft repository for VSCode.

   ```
   sudo rpm --import https://packages.microsoft.com/keys/microsoft.asc
   ```

   Next, create the repository file:

   ```
   sudo sh -c 'echo -e "[code]\nname=Visual Studio Code\nbaseurl=https://packages.microsoft.com/yumrepos/vscode\nenabled=1\ntype=rpm-md\ngpgcheck=1\ngpgkey=https://packages.microsoft.com/keys/microsoft.asc" > /etc/yum.repos.d/vscode.repo'
   ```

2. Install VSCode

   Install Visual Studio Code using dnf:

   ```
   sudo dnf install code
   ```

3. Launch VSCode (Optional):

   ```
   code
   ```