

Installing Java and python3 by single script file....

Problem Statement:

```
[dinu@192 ~]$ #Develop a script, which will be OS independent, enabling you to install Python3 and Java Along with Java Home, with the success criteria tests to validate the installation all via the script, if it encounters any failure then it should do the needful, you are only allowed to run the script and no other commandss]
```

Script:

```
#!/bin/bash

set -e

install_python_and_java() {
    echo "Checking the operating system..."
    if [ -f /etc/os-release ]; then
        ./etc/os-release
        OS=$ID
        VERSION_ID=$VERSION_ID
        echo "OS checked. Your OS is $OS"
    else
        echo "Unsupported Linux distribution"
        exit 1
    fi

    echo "Installing Python and Java..."
    case "$OS" in
        ubuntu)
            echo "Installing Python for Ubuntu..."
            sudo apt-get update
            sudo apt-get install -y python3
            echo "Python installation finished."

            echo "Installing Java for Ubuntu..."
            sudo apt-get install -y openjdk-8-jdk
            echo "Java installation finished."
            ;;
        centos|rhel)
            echo "Installing Python for CentOS/RHEL..."
            sudo yum install -y epel-release
            sudo yum install -y python3
            echo "Python installation finished."

            echo "Installing Java for CentOS/RHEL..."
            sudo yum install -y java-1.8.0-openjdk
            echo "Java installation finished."
            ;;
        *)
            echo "Unsupported Linux distribution: $OS"
            exit 1
            ;;
    esac

    export JAVA_HOME=$(dirname $(dirname $(readlink -f $(which java))))
```

```

echo "export JAVA_HOME=$JAVA_HOME" >> ~/.bashrc
echo 'export PATH="$JAVA_HOME/bin:$PATH"' >> ~/.bashrc
}

validate_installations() {
    echo "Validating Python and Java installations..."
    if ! command -v python3 &> /dev/null; then
        echo "Python3 installation failed"
        exit 1
    else
        echo "Python version: $(python3 --version)"
    fi

    if ! command -v java &> /dev/null; then
        echo "Java installation failed"
        exit 1
    else
        echo "Java version: $(java -version 2>&1)"
    fi

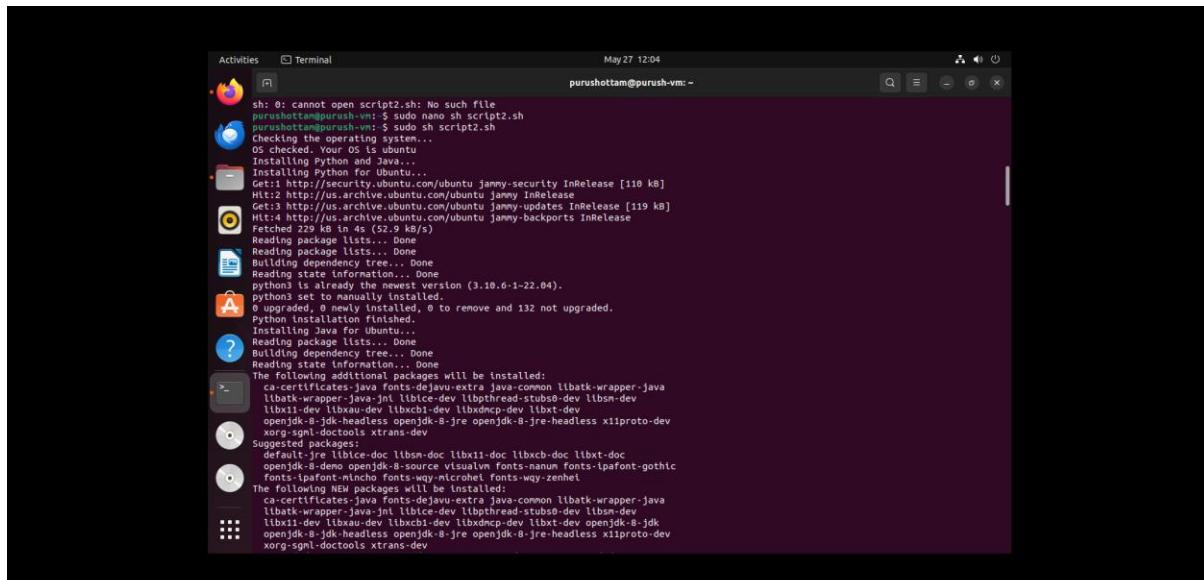
    if [[ -z "$JAVA_HOME" ]]; then
        echo "JAVA_HOME is not set"
        exit 1
    else
        echo "JAVA_HOME is set to: $JAVA_HOME"
    fi
}

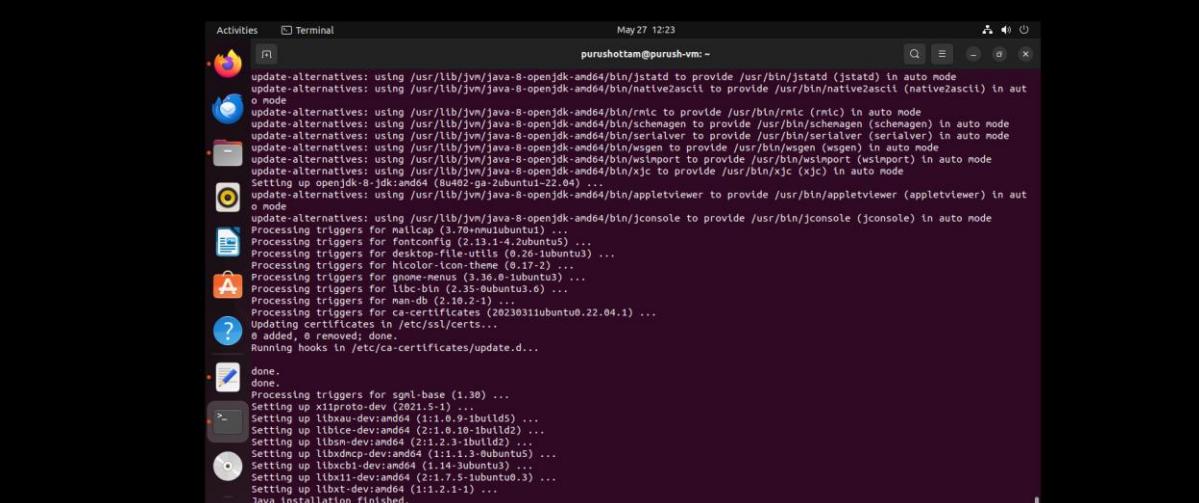
main() {
    install_python_and_java
    source ~/ .bashrc
    validate_installations
}

main

```

SS:





A screenshot of a Linux terminal window titled "Terminal" with the command "purushottam@purush-vm:~". The terminal displays the output of a Java 8 installation script. The output includes:

- update-alternatives: using /usr/lib/jvm/java-8-openjdk-amd64/bin/jstaddr to provide /usr/bin/jstaddr (jstaddr) in auto mode
- update-alternatives: using /usr/lib/jvm/java-8-openjdk-amd64/bin/native2ascii to provide /usr/bin/native2ascii (native2ascii) in auto mode
- update-alternatives: using /usr/lib/jvm/java-8-openjdk-amd64/bin/rmlc to provide /usr/bin/rmlc (rmlc) in auto mode
- update-alternatives: using /usr/lib/jvm/java-8-openjdk-amd64/bin/schemagen to provide /usr/bin/schemagen (schemagen) in auto mode
- update-alternatives: using /usr/lib/jvm/java-8-openjdk-amd64/bin/serialver to provide /usr/bin/serialver (serialver) in auto mode
- update-alternatives: using /usr/lib/jvm/java-8-openjdk-amd64/bin/wsgen to provide /usr/bin/wsgen (wsgen) in auto mode
- update-alternatives: using /usr/lib/jvm/java-8-openjdk-amd64/bin/wsimport to provide /usr/bin/wsimport (wsimport) in auto mode
- update-alternatives: using /usr/lib/jvm/java-8-openjdk-amd64/bin/xjc to provide /usr/bin/xjc (xjc) in auto mode
- update-alternatives: using /usr/lib/jvm/java-8-openjdk-amd64/bin/appletviewer to provide /usr/bin/appletviewer (appletviewer) in auto mode
- update-alternatives: using /usr/lib/jvm/java-8-openjdk-amd64/bin/jconsole to provide /usr/bin/jconsole (jconsole) in auto mode

Processing triggers for mailcap (3.70+mmu1ubuntu1) ...
Processing triggers for Fontconfig (2.3.1-1~14ubuntu5) ...
Processing triggers for libfontenc1 (0.4.3-1ubuntu3) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for libbc-bin (2.35-0ubuntu3.6) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for ca-certificates (20230311ubuntu0.22.04.1) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed, 0 updated.
Running hooks in /etc/ca-certificates/update.d...
done.
done.
Processing triggers for sgml-base (1.38) ...
Setting up x11proto-dev (2021.5-1) ...
Setting up liblau-dev:amd64 (1:1.0.10-1build15) ...
Setting up libice-dev:amd64 (2:1.0.10-1build2) ...
Setting up libsm-dev:amd64 (2:1.2.3-1build2) ...
Setting up libxdmcp-dev:amd64 (1:1.1.3-0ubuntu5) ...
Setting up libxext-dev:amd64 (1:1.1.3-0ubuntu3) ...
Setting up libxinerama-dev:amd64 (2:1.1.5-1ubuntu0.3) ...
Setting up libxt-dev:amd64 (1:1.1.5-1ubuntu0.3) ...
Setting up libxt-dev:amd64 (2:1.2.1-1) ...
Java installation finished.