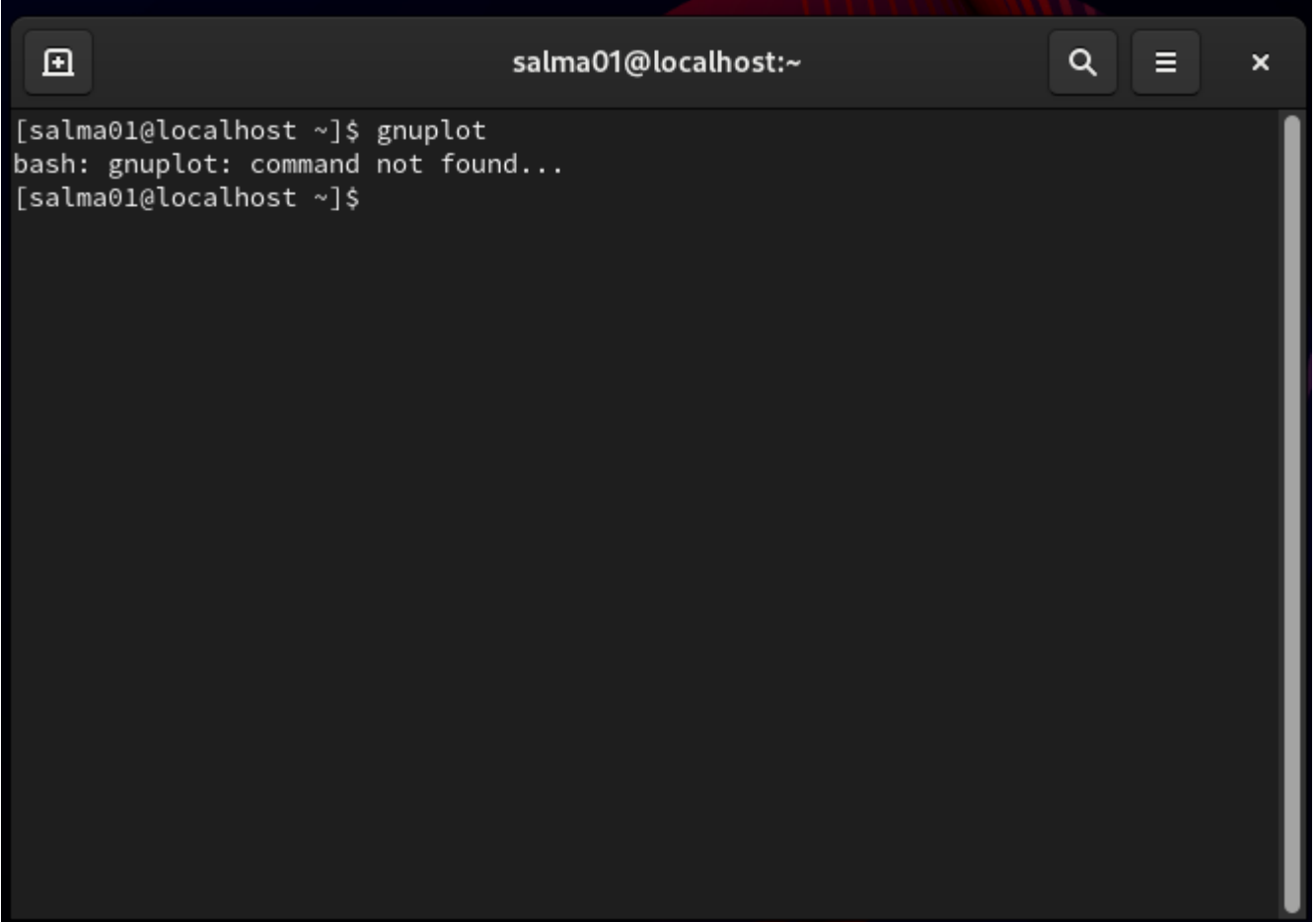


## Using yum

17. Attempt to run the command `gnuplot`. You should find that it is not installed.

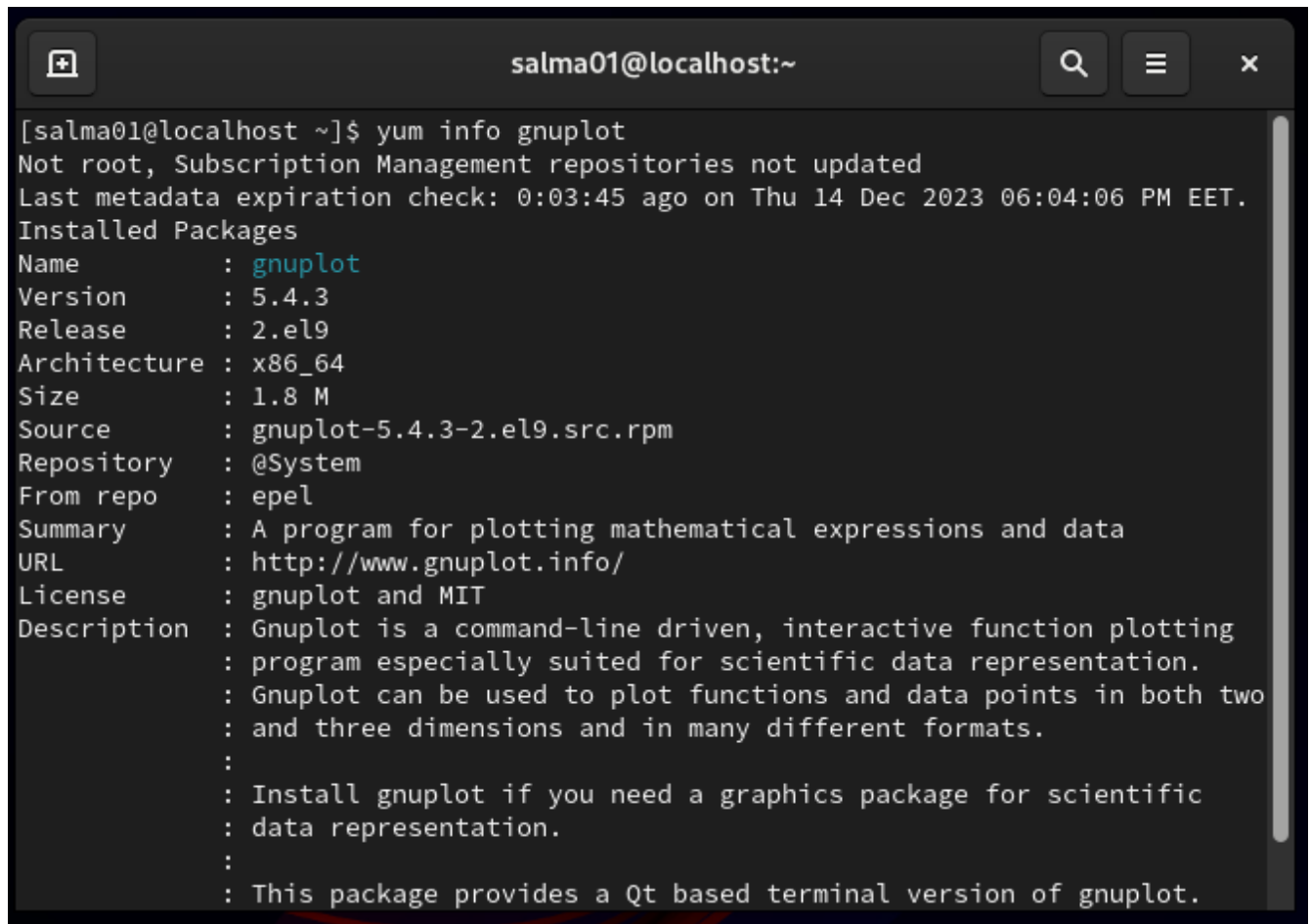


```
salma01@localhost:~  
[salma01@localhost ~]$ gnuplot  
bash: gnuplot: command not found...  
[salma01@localhost ~]$
```

18. Search for the plotting packages.

```
salma01@localhost:~  
You have new mail in /var/spool/mail/salma01  
[salma01@localhost ~]$ yum search plotting  
Not root, Subscription Management repositories not updated  
Extra Packages for Enterprise Linux 9 - x86_64 352 kB/s | 20 MB 00:57  
Extra Packages for Enterprise Linux 9 openh264 2.4 kB/s | 2.5 kB 00:01  
Red Hat CodeReady Linux Builder for RHEL 9 x86_ 332 kB/s | 6.4 MB 00:19  
Red Hat Enterprise Linux 9 for x86_64 - AppStre 350 kB/s | 28 MB 01:21  
Red Hat Enterprise Linux 9 for x86_64 - BaseOS 335 kB/s | 16 MB 00:49  
===== Name & Summary Matched: plotting =====  
kf5-kplotting.x86_64 : KDE Frameworks 5 Tier 1 add-on for plotting  
kf5-kplotting-devel.x86_64 : Development files for kf5-kplotting  
===== Summary Matched: plotting =====  
gnuplot.x86_64 : A program for plotting mathematical expressions and data  
gnuplot-minimal.x86_64 : Minimal version of program for plotting mathematical  
                        : expressions and data  
ocaml-plplot.x86_64 : Functions for scientific plotting with OCaml  
plplot-java.x86_64 : Functions for scientific plotting with Java  
plplot-lua.x86_64 : Functions for scientific plotting with Lua  
plplot-pyqt.x86_64 : Functions for scientific plotting with PyQt  
plplot-qt.x86_64 : Functions for scientific plotting with Qt  
plplot-tk.x86_64 : Functions for scientific plotting with Tk  
plplot-wxGTK.x86_64 : Functions for scientific plotting with wxGTK  
python3-matplotlib.x86_64 : Python 2D plotting library  
rust-criterion-plot+default-devel.noarch : Criterion's plotting library
```

19. Find out more information about the gnuplot package.



```
[salma01@localhost ~]$ yum info gnuplot
Not root, Subscription Management repositories not updated
Last metadata expiration check: 0:03:45 ago on Thu 14 Dec 2023 06:04:06 PM EET.
Installed Packages
Name           : gnuplot
Version        : 5.4.3
Release        : 2.el9
Architecture   : x86_64
Size           : 1.8 M
Source          : gnuplot-5.4.3-2.el9.src.rpm
Repository     : @System
From repo      : epel
Summary        : A program for plotting mathematical expressions and data
URL            : http://www.gnuplot.info/
License        : gnuplot and MIT
Description    : Gnuplot is a command-line driven, interactive function plotting
                : program especially suited for scientific data representation.
                : Gnuplot can be used to plot functions and data points in both two
                : and three dimensions and in many different formats.
                :
                : Install gnuplot if you need a graphics package for scientific
                : data representation.
                :
                : This package provides a Qt based terminal version of gnuplot.
```

20. Install the gnuplot package.

```
[salma01@localhost ~]$ sudo yum install gnuplot
[sudo] password for salma01:
Updating Subscription Management repositories.
Last metadata expiration check: 0:12:32 ago on Thu 14 Dec 2023 05:57:06 PM EET.
Package gnuplot-5.4.3-2.el9.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[salma01@localhost ~]$
```

21. Attempt to remove the gnuplot package, but say no  
How many packages would be removed.

```
salma01@localhost:~  
You have new mail in /var/spool/mail/salma01  
[salma01@localhost ~]$ sudo yum remove gnuplot  
Updating Subscription Management repositories.  
Dependencies resolved.  
=====
```

Package	Arch	Version	Repository	Size
---------	------	---------	------------	------

```
=====
```

Removing:

gnuplot	x86_64	5.4.3-2.el9	@epel	1.8 M
---------	--------	-------------	-------	-------

Removing unused dependencies:

gnuplot-common	x86_64	5.4.3-2.el9	@epel	1.7 M
libcerf	x86_64	1.17-2.el9	@epel	67 k
pcre2-utf16	x86_64	10.40-2.el9	@rhel-9-for-x86_64-appstream-rpms	571 k
qt5-qtbase	x86_64	5.15.9-7.el9	@rhel-9-for-x86_64-appstream-rpms	10 M
qt5-qtbase-common	noarch	5.15.9-7.el9	@rhel-9-for-x86_64-appstream-rpms	75
qt5-qtbase-gui	x86_64	5.15.9-7.el9	@rhel-9-for-x86_64-appstream-rpms	20 M
qt5-qtsvg	x86_64	5.15.9-2.el9	@rhel-9-for-x86_64-appstream-rpms	643 k
xcb-util-image	x86_64	0.4.0-19.el9	@rhel-9-for-x86_64-appstream-rpms	22 k
xcb-util-keysyms	x86_64	0.4.0-17.el9	@rhel-9-for-x86_64-appstream-rpms	16 k
xcb-util-renderutil	x86_64	0.3.9-20.el9	@rhel-9-for-x86_64-appstream-rpms	28 k
xcb-util-wm	x86_64	0.4.1-22.el9	@rhel-9-for-x86_64-appstream-rpms	85 k

Transaction Summary

22. Attempt to remove the gunplot-common package but say no  
How many packages would be removed.

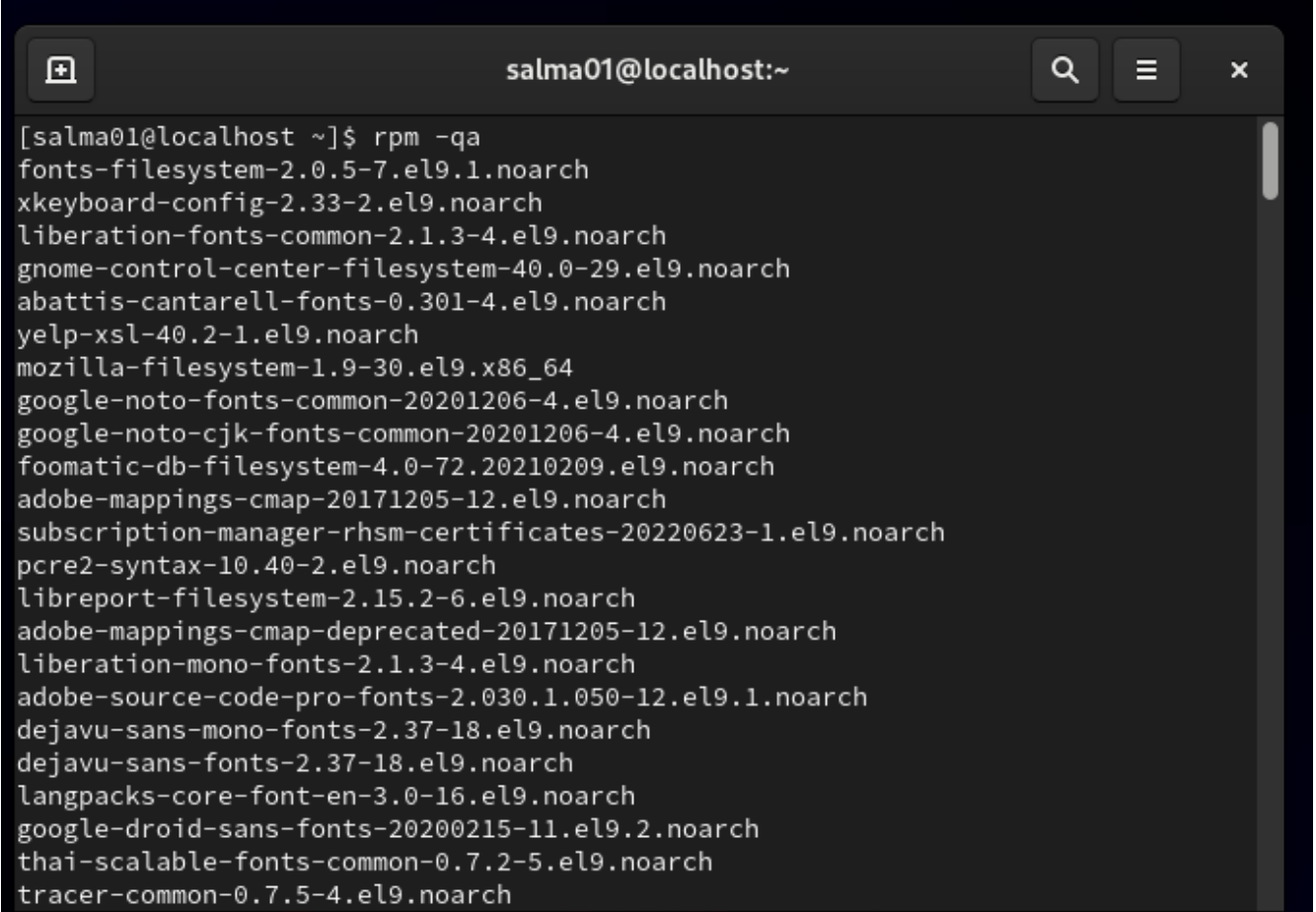
```
salma01@localhost:~  
gnuplot-common      x86_64 5.4.3-2.el9 @epel 1.7 M  
Removing dependent packages:  
gnuplot             x86_64 5.4.3-2.el9 @epel 1.8 M  
Removing unused dependencies:  
libcerf             x86_64 1.17-2.el9 @epel 67 k  
pcre2-utf16         x86_64 10.40-2.el9 @rhel-9-for-x86_64-appstream-rpms 571 k  
qt5-qtbase          x86_64 5.15.9-7.el9 @rhel-9-for-x86_64-appstream-rpms 10 M  
qt5-qtbase-common   noarch 5.15.9-7.el9 @rhel-9-for-x86_64-appstream-rpms 75  
qt5-qtbase-gui      x86_64 5.15.9-7.el9 @rhel-9-for-x86_64-appstream-rpms 20 M  
qt5-qtsvg           x86_64 5.15.9-2.el9 @rhel-9-for-x86_64-appstream-rpms 643 k  
xcb-util-image      x86_64 0.4.0-19.el9 @rhel-9-for-x86_64-appstream-rpms 22 k  
xcb-util-keysyms    x86_64 0.4.0-17.el9 @rhel-9-for-x86_64-appstream-rpms 16 k  
xcb-util-renderutil x86_64 0.3.9-20.el9 @rhel-9-for-x86_64-appstream-rpms 28 k  
xcb-util-wm         x86_64 0.4.1-22.el9 @rhel-9-for-x86_64-appstream-rpms 85 k  
  
Transaction Summary  
=====
```

Package	Architecture	Version	Source	Size
gnuplot-common	x86_64	5.4.3-2.el9	@epel	1.7 M
gnuplot	x86_64	5.4.3-2.el9	@epel	1.8 M
libcerf	x86_64	1.17-2.el9	@epel	67 k
pcre2-utf16	x86_64	10.40-2.el9	@rhel-9-for-x86_64-appstream-rpms	571 k
qt5-qtbase	x86_64	5.15.9-7.el9	@rhel-9-for-x86_64-appstream-rpms	10 M
qt5-qtbase-common	noarch	5.15.9-7.el9	@rhel-9-for-x86_64-appstream-rpms	75
qt5-qtbase-gui	x86_64	5.15.9-7.el9	@rhel-9-for-x86_64-appstream-rpms	20 M
qt5-qtsvg	x86_64	5.15.9-2.el9	@rhel-9-for-x86_64-appstream-rpms	643 k
xcb-util-image	x86_64	0.4.0-19.el9	@rhel-9-for-x86_64-appstream-rpms	22 k
xcb-util-keysyms	x86_64	0.4.0-17.el9	@rhel-9-for-x86_64-appstream-rpms	16 k
xcb-util-renderutil	x86_64	0.3.9-20.el9	@rhel-9-for-x86_64-appstream-rpms	28 k
xcb-util-wm	x86_64	0.4.1-22.el9	@rhel-9-for-x86_64-appstream-rpms	85 k

```
Remove 12 Packages  
  
Freed space: 35 M  
Is this ok [y/N]: n  
Operation aborted.  
[salma01@localhost ~]$
```

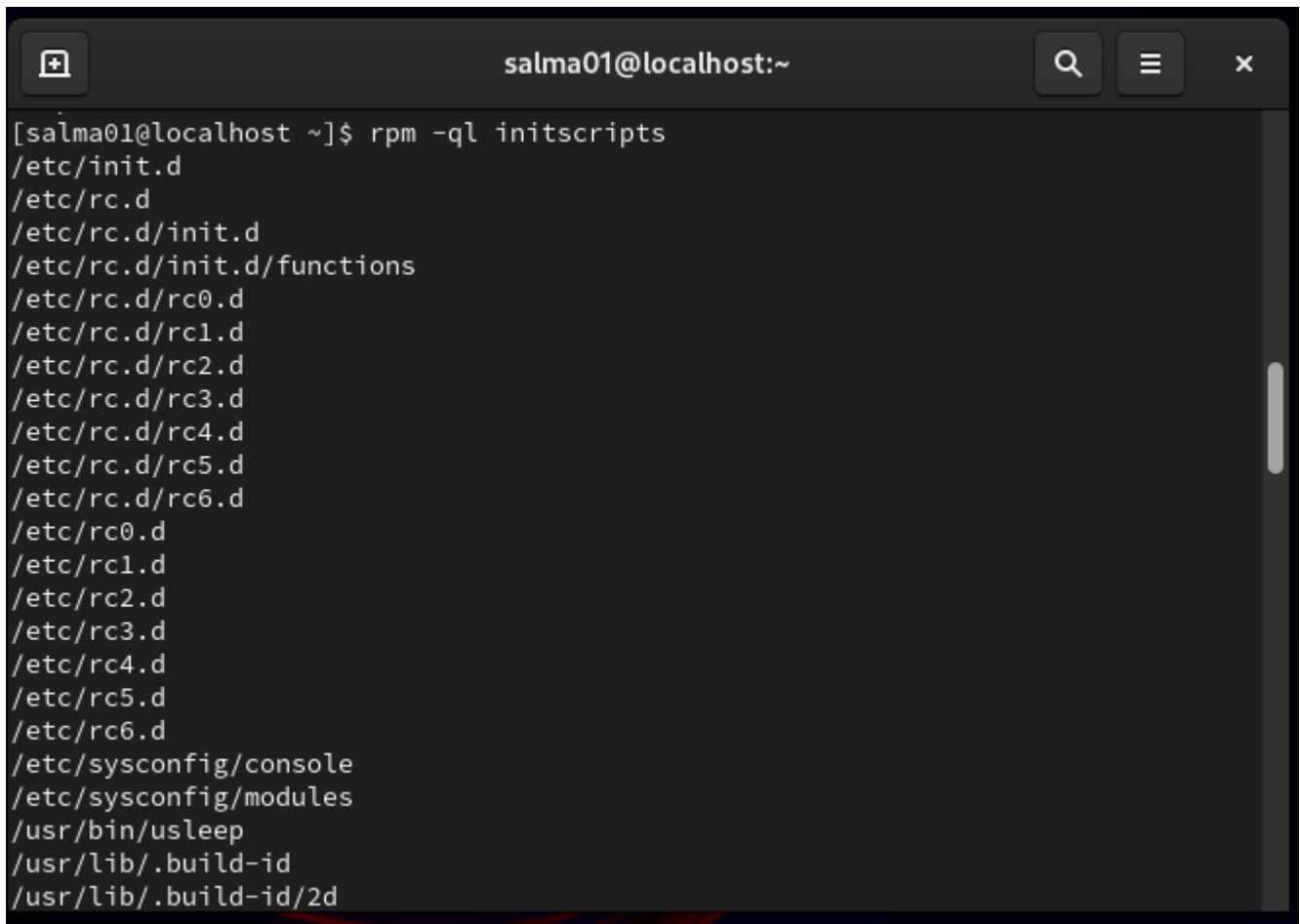
Using rpm

23. List all installed packages in your system.

A terminal window titled 'salma01@localhost:~' with search, menu, and close buttons in the title bar. The terminal shows the command '[salma01@localhost ~]\$ rpm -qa' and its output, which is a list of 28 installed RPM packages. The packages are listed in a single column, with some wrapping. The list includes fonts, keyboard config, liberation fonts, gnome control center, abattis cantarell fonts, yelp xsl, mozilla filesystem, google noto fonts, foomatic db, adobe mappings cmap, subscription manager rhsm certificates, pcre2 syntax, libreport filesystem, adobe mappings cmap deprecated, liberation mono fonts, adobe source code pro fonts, dejavu sans mono fonts, dejavu sans fonts, langpacks core font en, google droid sans fonts, thai scalable fonts, and tracer common.

```
[salma01@localhost ~]$ rpm -qa
fonts-filesystem-2.0.5-7.el9.1.noarch
xkeyboard-config-2.33-2.el9.noarch
liberation-fonts-common-2.1.3-4.el9.noarch
gnome-control-center-filesystem-40.0-29.el9.noarch
abattis-cantarell-fonts-0.301-4.el9.noarch
yelp-xsl-40.2-1.el9.noarch
mozilla-filesystem-1.9-30.el9.x86_64
google-noto-fonts-common-20201206-4.el9.noarch
google-noto-cjk-fonts-common-20201206-4.el9.noarch
foomatic-db-filesystem-4.0-72.20210209.el9.noarch
adobe-mappings-cmap-20171205-12.el9.noarch
subscription-manager-rhsm-certificates-20220623-1.el9.noarch
pcre2-syntax-10.40-2.el9.noarch
libreport-filesystem-2.15.2-6.el9.noarch
adobe-mappings-cmap-deprecated-20171205-12.el9.noarch
liberation-mono-fonts-2.1.3-4.el9.noarch
adobe-source-code-pro-fonts-2.030.1.050-12.el9.1.noarch
dejavu-sans-mono-fonts-2.37-18.el9.noarch
dejavu-sans-fonts-2.37-18.el9.noarch
langpacks-core-font-en-3.0-16.el9.noarch
google-droid-sans-fonts-20200215-11.el9.2.noarch
thai-scalable-fonts-common-0.7.2-5.el9.noarch
tracer-common-0.7.5-4.el9.noarch
```

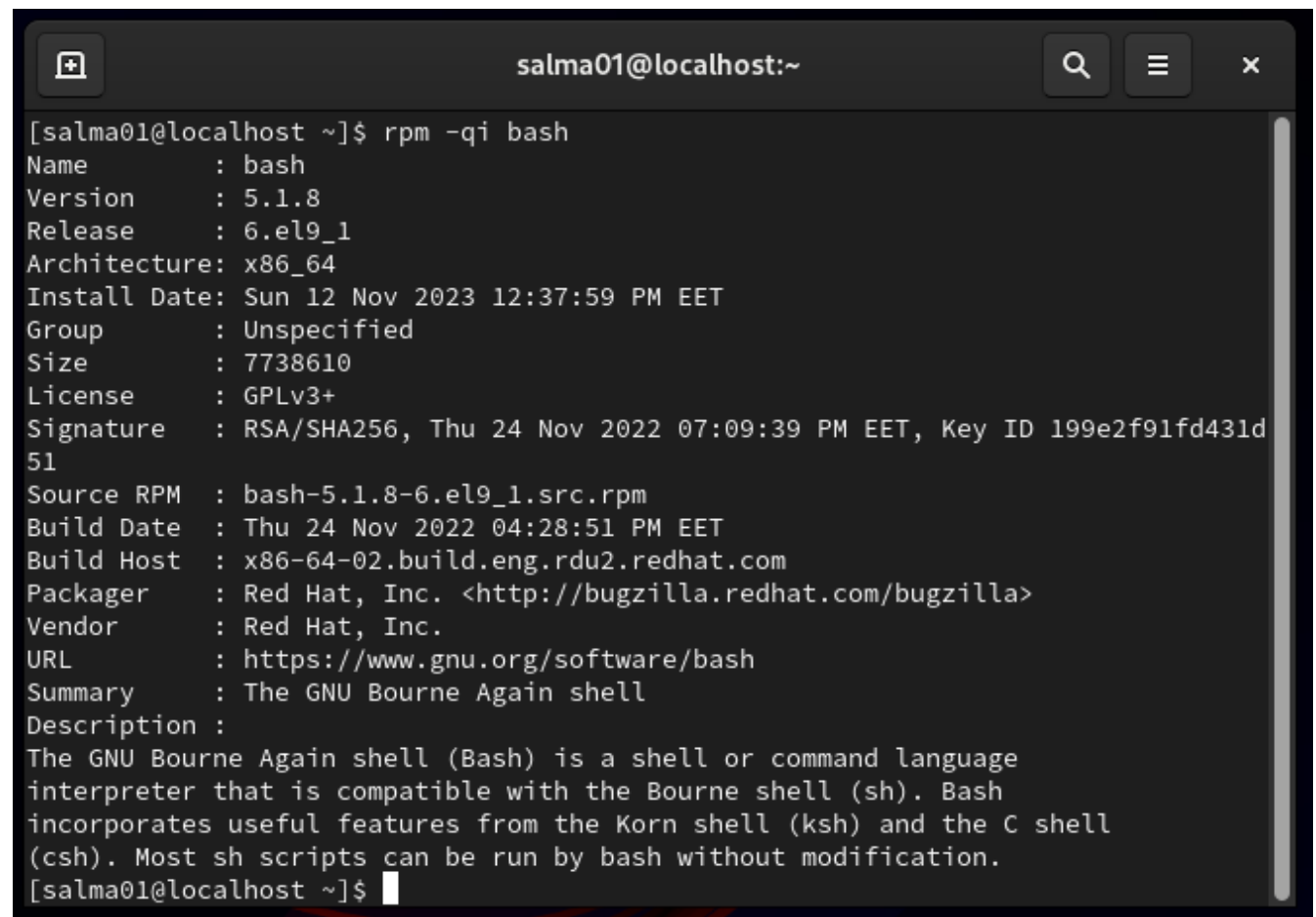
24. View the files in the initscripts package.

A terminal window titled 'salma01@localhost:~' with search, menu, and close buttons in the title bar. The terminal shows the command '[salma01@localhost ~]\$ rpm -ql initscripts' and its output, which lists various system files including init.d, rc.d, sysconfig, and usr/lib files.

```
[salma01@localhost ~]$ rpm -ql initscripts
/etc/init.d
/etc/rc.d
/etc/rc.d/init.d
/etc/rc.d/init.d/functions
/etc/rc.d/rc0.d
/etc/rc.d/rc1.d
/etc/rc.d/rc2.d
/etc/rc.d/rc3.d
/etc/rc.d/rc4.d
/etc/rc.d/rc5.d
/etc/rc.d/rc6.d
/etc/rc0.d
/etc/rc1.d
/etc/rc2.d
/etc/rc3.d
/etc/rc4.d
/etc/rc5.d
/etc/rc6.d
/etc/sysconfig/console
/etc/sysconfig/modules
/usr/bin/usb_modeswitch
/usr/bin/usb_modeswitch.sh
/usr/lib/.build-id
/usr/lib/.build-id/2d
```

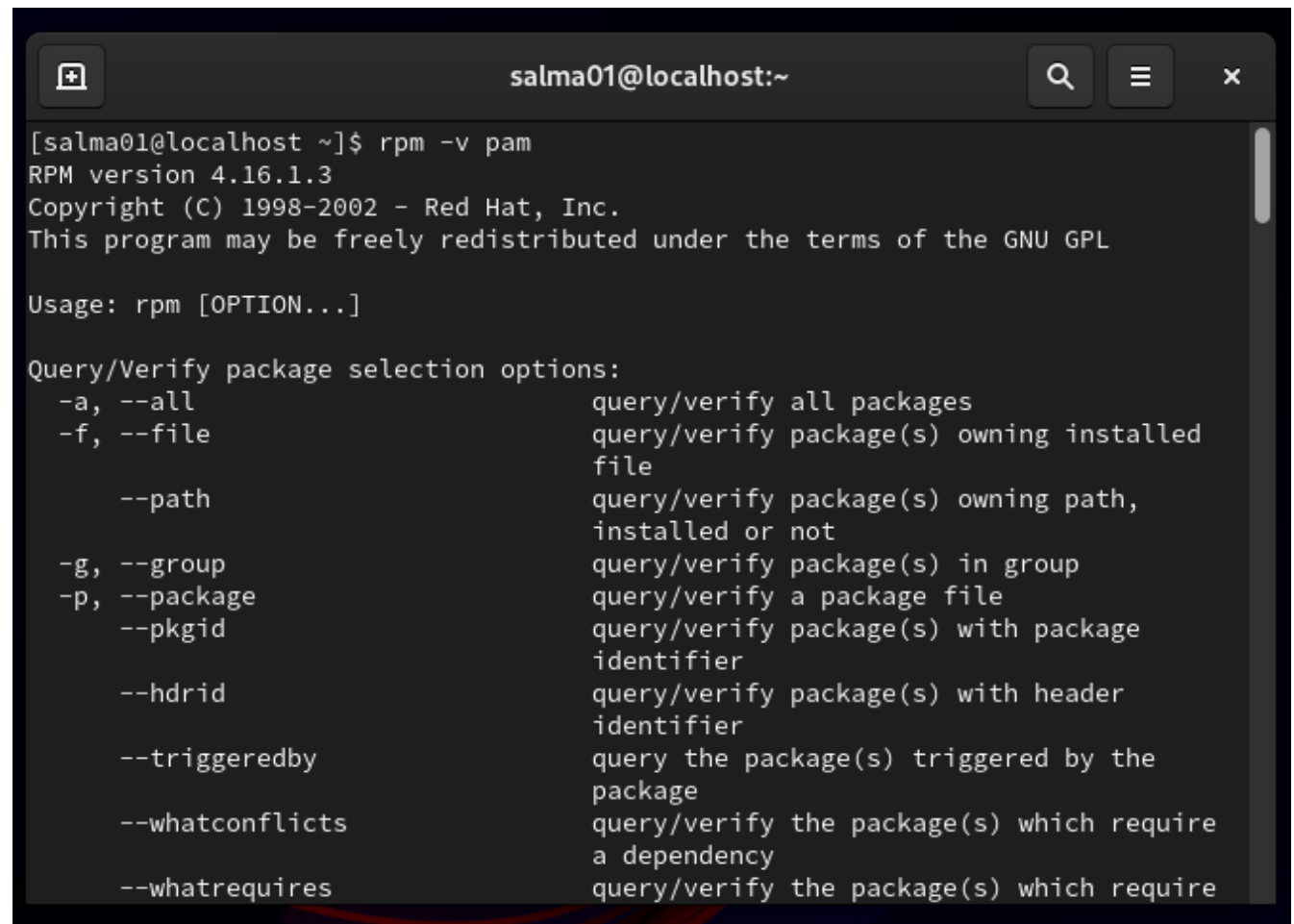


25. Get general information about bash rpm.

A terminal window titled 'salma01@localhost:~' with search, menu, and close icons in the title bar. The terminal shows the command 'rpm -qi bash' and its output, which lists various package details for bash. The output includes Name, Version, Release, Architecture, Install Date, Group, Size, License, Signature, Source RPM, Build Date, Build Host, Packager, Vendor, URL, Summary, and a Description. The description states that Bash is a shell or command language interpreter compatible with the Bourne shell (sh), incorporating features from the Korn shell (ksh) and the C shell (csh).

```
[salma01@localhost ~]$ rpm -qi bash
Name       : bash
Version    : 5.1.8
Release    : 6.el9_1
Architecture: x86_64
Install Date: Sun 12 Nov 2023 12:37:59 PM EET
Group      : Unspecified
Size       : 7738610
License    : GPLv3+
Signature  : RSA/SHA256, Thu 24 Nov 2022 07:09:39 PM EET, Key ID 199e2f91fd431d51
Source RPM : bash-5.1.8-6.el9_1.src.rpm
Build Date : Thu 24 Nov 2022 04:28:51 PM EET
Build Host : x86-64-02.build.eng.rdu2.redhat.com
Packager   : Red Hat, Inc. <http://bugzilla.redhat.com/bugzilla>
Vendor     : Red Hat, Inc.
URL        : https://www.gnu.org/software/bash
Summary    : The GNU Bourne Again shell
Description:
The GNU Bourne Again shell (Bash) is a shell or command language
interpreter that is compatible with the Bourne shell (sh). Bash
incorporates useful features from the Korn shell (ksh) and the C shell
(csh). Most sh scripts can be run by bash without modification.
[salma01@localhost ~]$
```

26. Have the files from the pam package changed since it was installed.

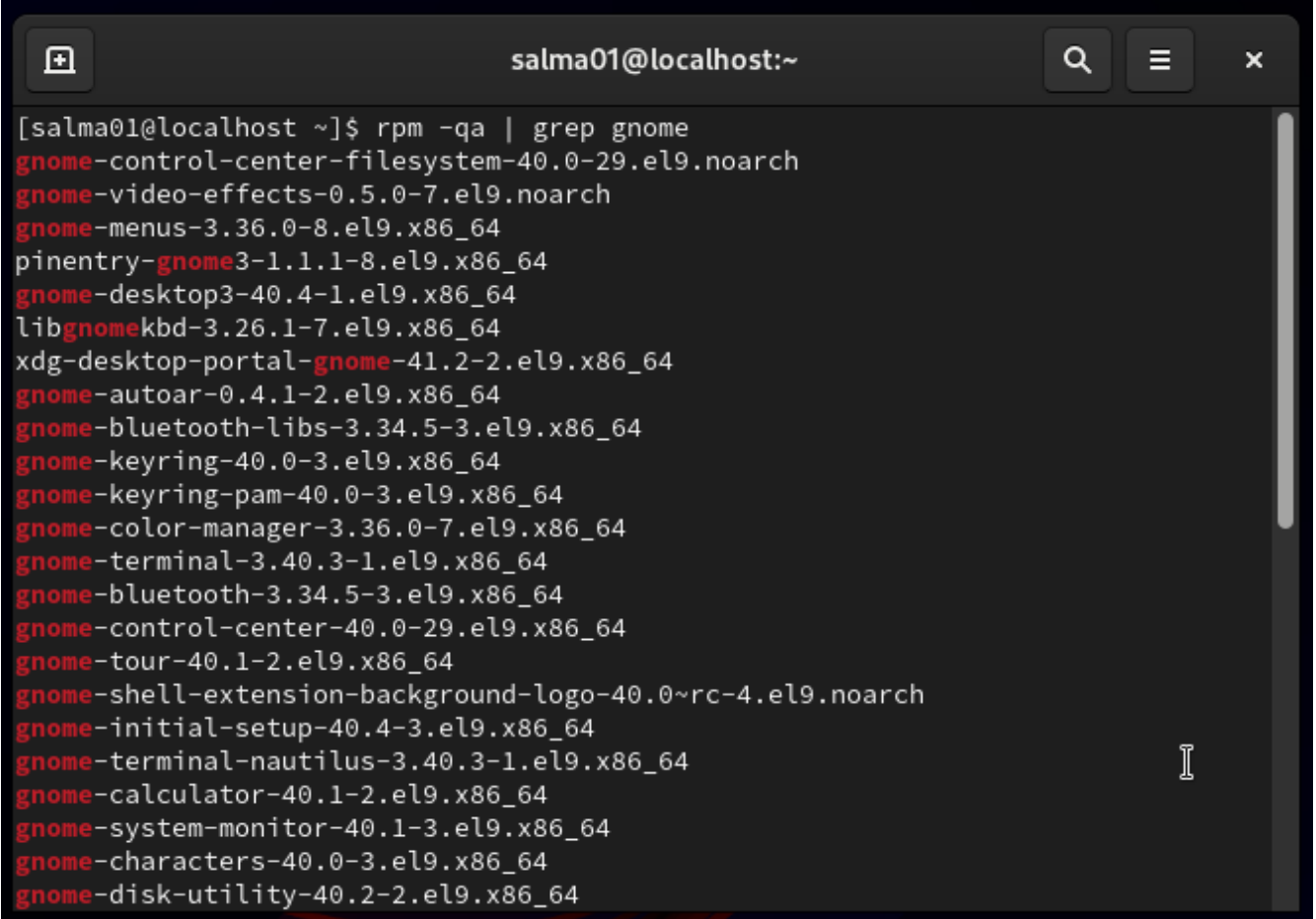


```
[salma01@localhost ~]$ rpm -v pam
RPM version 4.16.1.3
Copyright (C) 1998-2002 - Red Hat, Inc.
This program may be freely redistributed under the terms of the GNU GPL

Usage: rpm [OPTION...]

Query/Verify package selection options:
  -a, --all                query/verify all packages
  -f, --file                query/verify package(s) owning installed
                           file
      --path                query/verify package(s) owning path,
                           installed or not
  -g, --group               query/verify package(s) in group
  -p, --package             query/verify a package file
      --pkgid               query/verify package(s) with package
                           identifier
      --hdrid               query/verify package(s) with header
                           identifier
      --triggeredby         query the package(s) triggered by the
                           package
      --whatconflicts        query/verify the package(s) which require
                           a dependency
      --whatrequires         query/verify the package(s) which require
```

27. Which installed packages have gnome in their names?



```
salma01@localhost:~  
[salma01@localhost ~]$ rpm -qa | grep gnome  
gnome-control-center-filesystem-40.0-29.el9.noarch  
gnome-video-effects-0.5.0-7.el9.noarch  
gnome-menus-3.36.0-8.el9.x86_64  
pinentry-gnome3-1.1.1-8.el9.x86_64  
gnome-desktop3-40.4-1.el9.x86_64  
libgnomekbd-3.26.1-7.el9.x86_64  
xdg-desktop-portal-gnome-41.2-2.el9.x86_64  
gnome-autoar-0.4.1-2.el9.x86_64  
gnome-bluetooth-libs-3.34.5-3.el9.x86_64  
gnome-keyring-40.0-3.el9.x86_64  
gnome-keyring-pam-40.0-3.el9.x86_64  
gnome-color-manager-3.36.0-7.el9.x86_64  
gnome-terminal-3.40.3-1.el9.x86_64  
gnome-bluetooth-3.34.5-3.el9.x86_64  
gnome-control-center-40.0-29.el9.x86_64  
gnome-tour-40.1-2.el9.x86_64  
gnome-shell-extension-background-logo-40.0~rc-4.el9.noarch  
gnome-initial-setup-40.4-3.el9.x86_64  
gnome-terminal-nautilus-3.40.3-1.el9.x86_64  
gnome-calculator-40.1-2.el9.x86_64  
gnome-system-monitor-40.1-3.el9.x86_64  
gnome-characters-40.0-3.el9.x86_64  
gnome-disk-utility-40.2-2.el9.x86_64
```

28. Install any uninstalled package from RH Enterprise Linux cds.

```
sudo yum install <package-name>
```

29. Search for software resemble the Photoshop software other than Gimp and install it.

```
sudo yum install canva
```

30. Create the file `/etc/yum.repos.d/cdrom.repo` to enable install from the iso from the iso of Red Hat.

A screenshot of a terminal window titled "salma01@localhost:~ — sudo vi /etc/yum.repos.d/cdrom.repo". The terminal shows the configuration of a yum repository named "cdrom". The configuration includes:  

```
[cdrom]  
name=Red Hat Enterprise Linux ISO  
baseurl=file:///mnt/iso  
enabled=1  
gpgcheck=0
```

  
The cursor is positioned at the end of the "gpgcheck=0" line. Below this, there are several tilde (~) characters representing blank lines. At the bottom of the terminal, it says "-- INSERT --" on the left, "5,11" in the center, and "All" on the right.