**КИЇВСЬКИЙ ФАХОВИЙ КОЛЕДЖ ЗВ’ЯЗКУ**

**WORK-CASE №4**

з дисципліни «Операційні системи»

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**The material was prepared by a student Zasenko**

Working with package managers:

**Package**:

A package in the context of software is an archived file that contains executable files, libraries, configuration files, and other resources necessary for the installation and operation of a program or software component on an operating system. Packages usually contain all the necessary data to install and maintain the application, including instructions for the package manager to unpack and install the files.

Packages help to standardize the process of installing programs and their dependencies on the operating system. They also provide the ability to easily update and uninstall programs, simplifying system administration.

**Repository**:

A repository is a centralized repository or server that contains a set of software packages for a particular operating system or distribution. Repositories allow users to conveniently find, install, update, and uninstall applications on their systems.

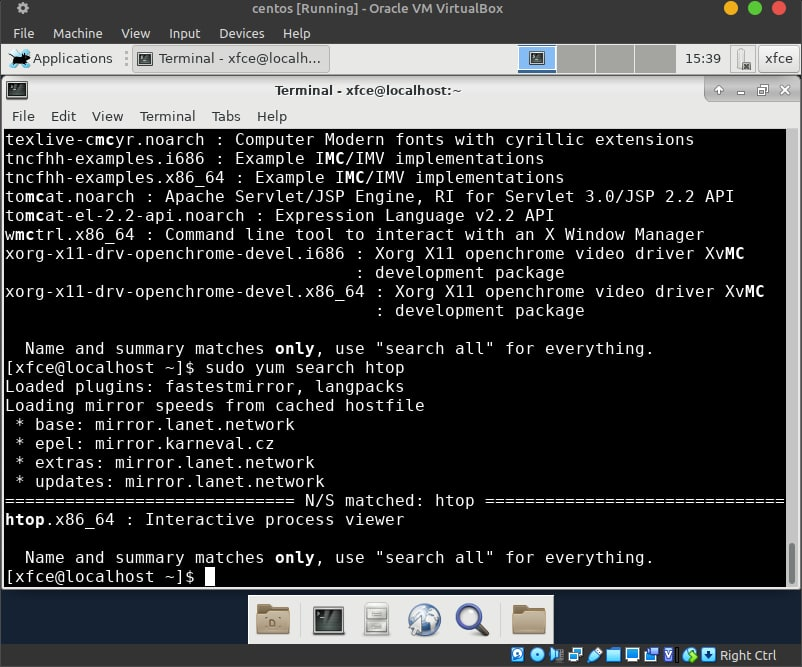
The main functions of repositories include:

1. Storage of packages**: Repositories store a set of program packages that can be installed on the system.**
2. Version management**: Repositories typically allow users to select versions of applications to install and update.**
3. Dependencies and conflict tracking**: Repositories specify dependencies between packages and avoid conflicts during installation.**
4. Package Updates: Repositories are updated regularly, allowing users to receive updates and security measures for applications.
5. Finding and managing packages: Users can use package management tools to find, install, update, and remove applications from repositories.

Repositories are used in various operating systems and distributions, such as Debian, Ubuntu, Red Hat, CentOS, and others, to facilitate the distribution and management of applications on these systems.

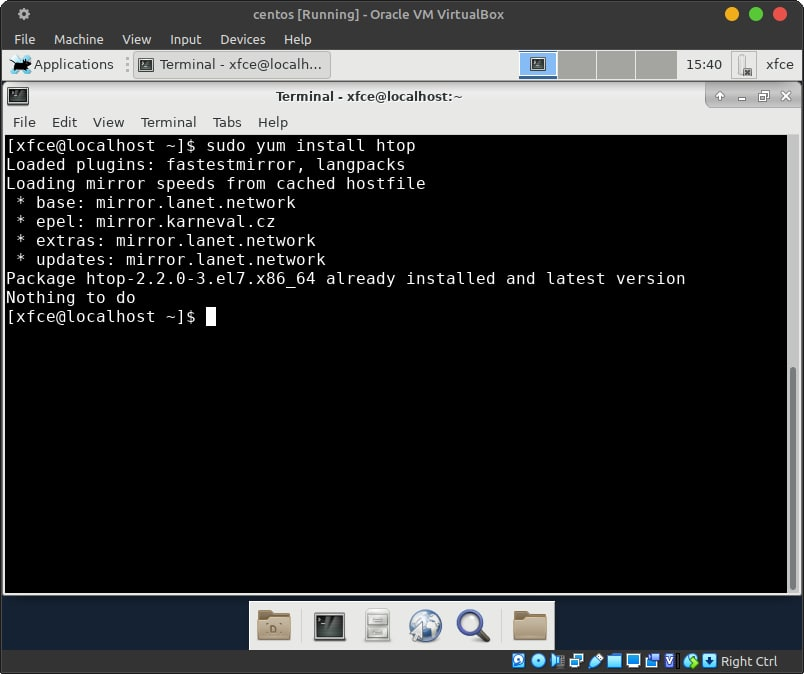
**The material was prepared by a student Dziubenko**

1. The installed system in the past works performed by us is CentOS, in the future information and screenshots will be from it. The CentOS system uses the yum package manager - Yellowdog Updater, Modified — an open console manager of RPM packages. Allows you to provide a cascading update of Linux systems with tracking of the relationships of RPM packages.



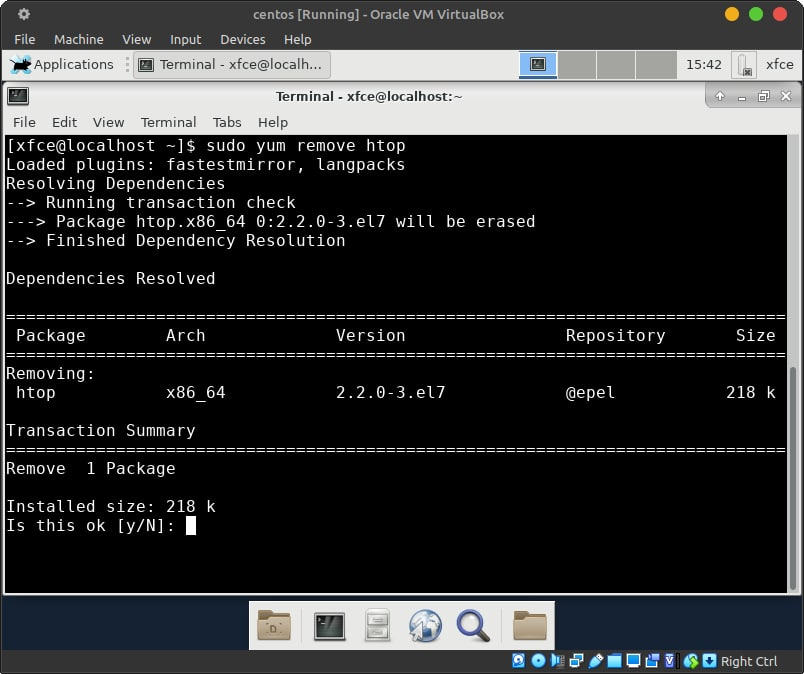
Use the search command to search for packages by keywords:

sudo yum search package\_name

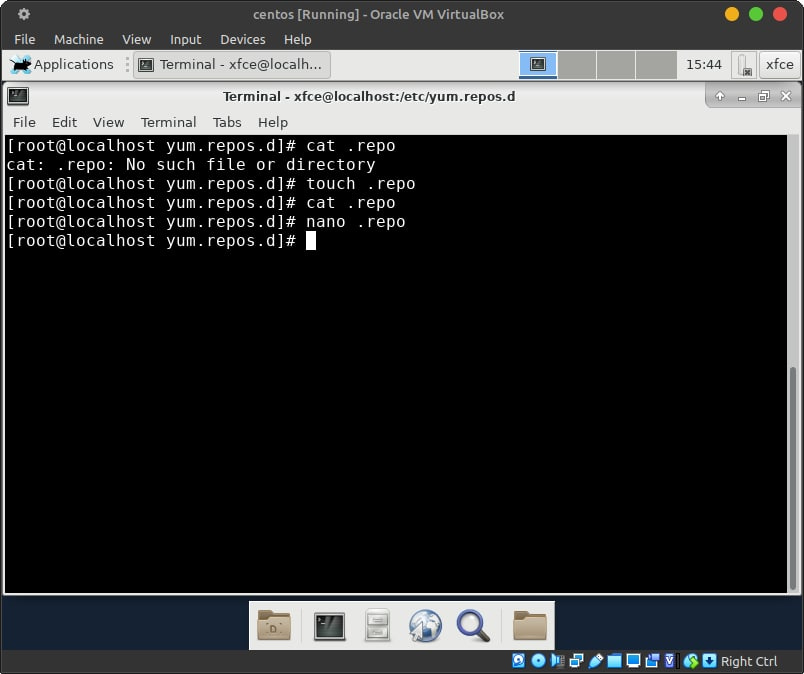


When you find the package you need, install it with the install command:

sudo yum install package\_name



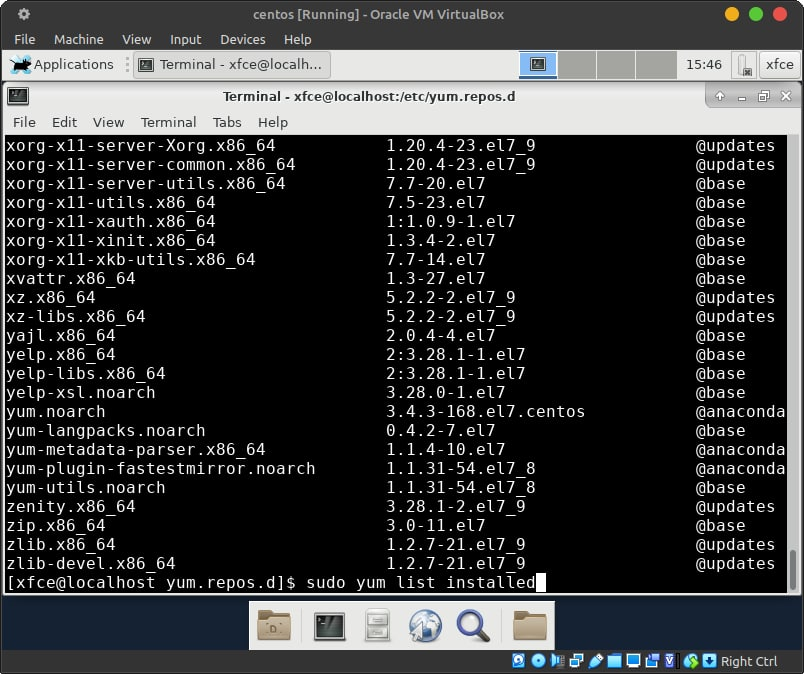
If you want to remove a package, use the remove command:

sudo yum remove package\_name

Sometimes packages may be available in repositories that are not installed by default.

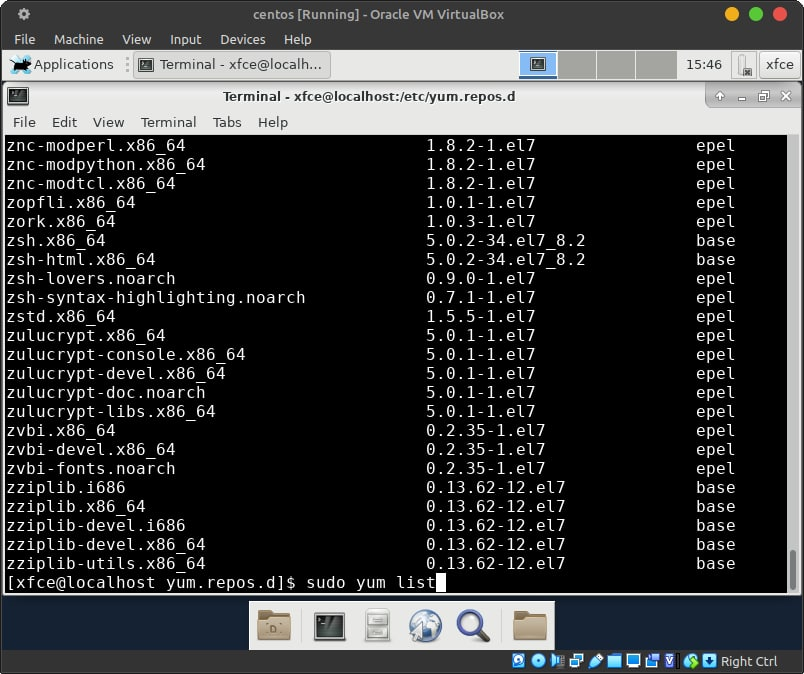
To add a new repository, create a

.repo file in the /etc/yum.repos.d/directory with the necessary settings



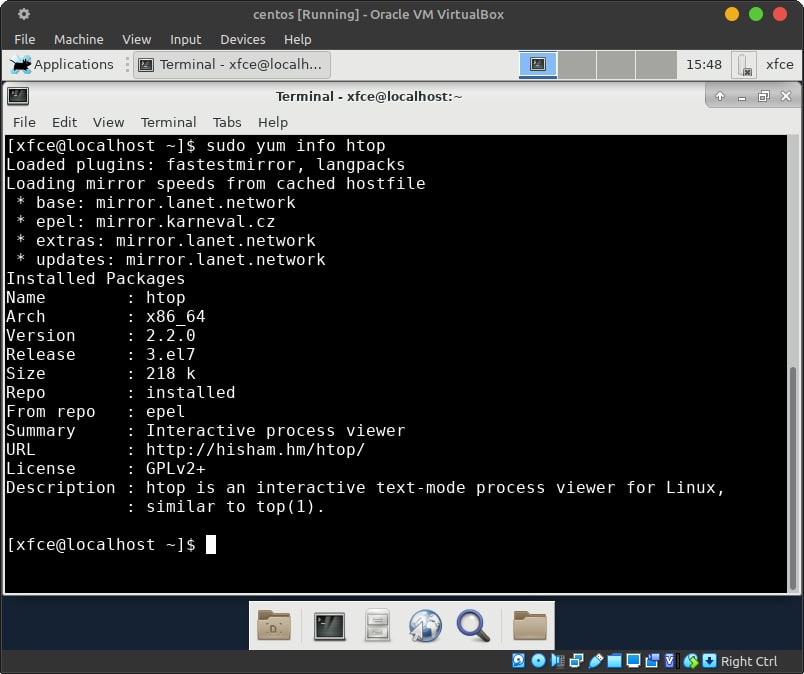
To view the list of installed packages, use the yum list installed command:

sudo yum list installed



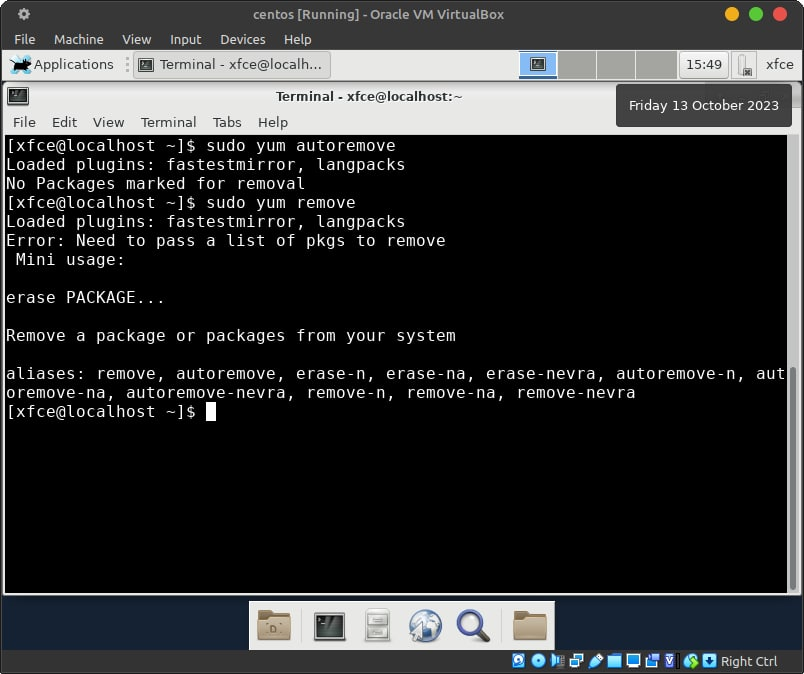
To list all available packages from repositories, use the yum list command without any parameters:

sudo yum list



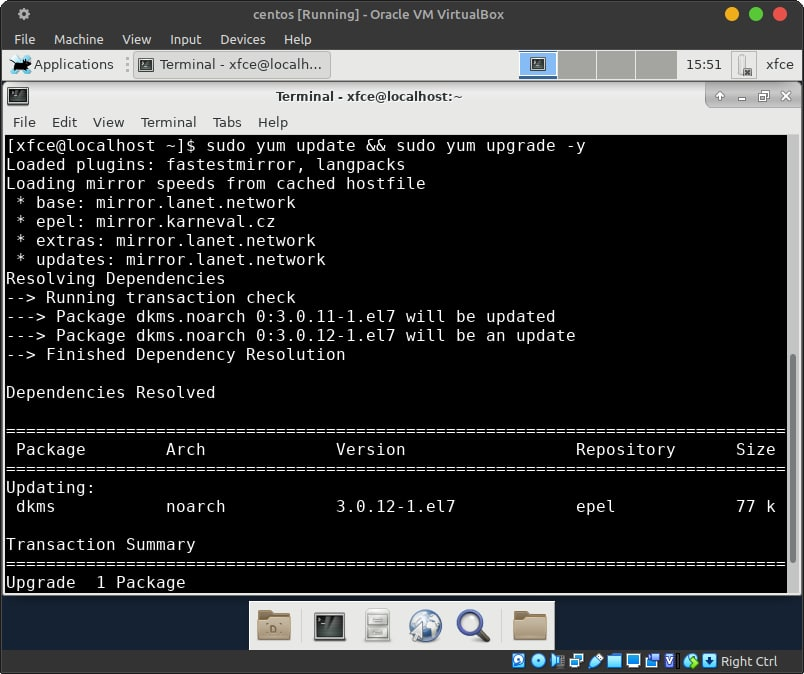
To get detailed information about a specific package, use the yum info command and specify the package name:

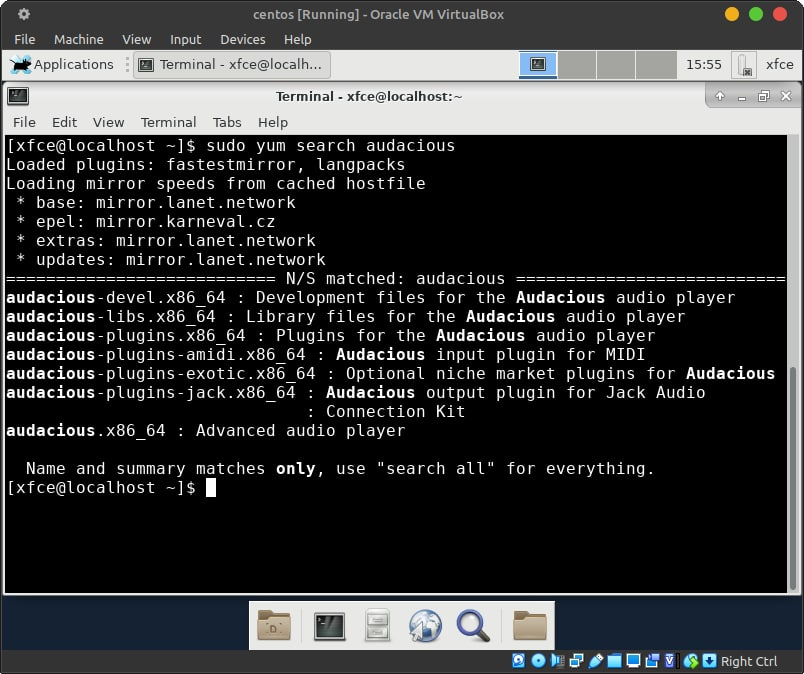
sudo yum info package\_name



To remove unnecessary or outdated packages on CentOS, you can use the yum autoremove command to automatically remove unnecessary package dependencies,

and the yum remove command to remove specific packages

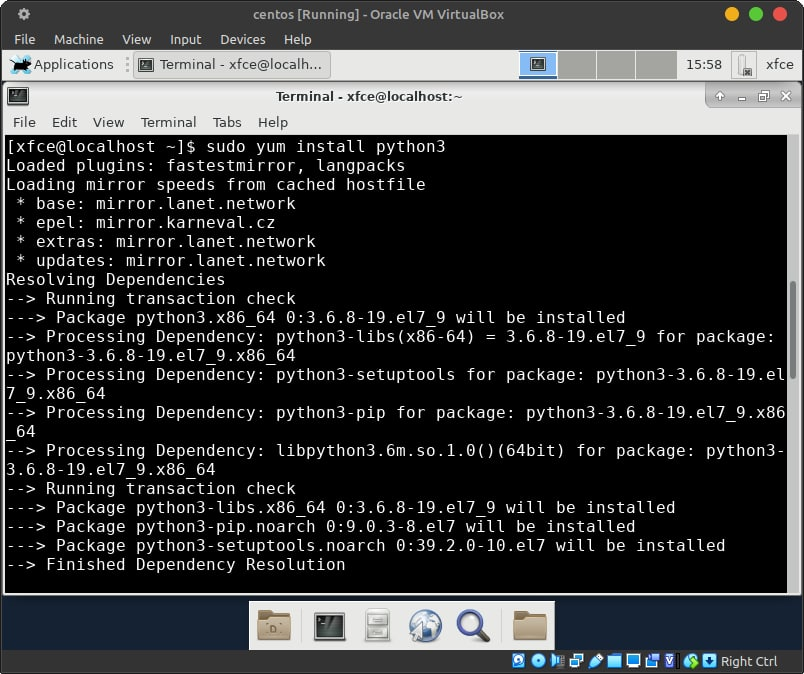


This will update the package manager and ensure it works correctly on your system. In CentOS 8 and later, it is recommended to use dnf as the primary package manager, as yum has been deprecated and is no longer supported in newer versions.

If you want to install a new video or audio player and programming language environment through the package manager on your CentOS system, first you need to know the name of the packages you want to install.

To install audacious, run the following command using yum:

sudo yum install audacious



To install Python (if you're learning Python), run:

sudo yum install python3

sudo yum install python3-pip

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To install new applications through application stores and package managers in a graphical environment, you can use a custom GUI interface that provides such capabilities.

GNOME: In the GNOME environment, you can use "GNOME Software" (also known as "Software" or "Software Center") to install new programs. Open GNOME Software, find the program you want to install, and click the "Install" or "Get" button.

KDE: In the KDE environment, you can use "Discover", which is a graphical package manager and application store for KDE Plasma. Open Discover, find the app, and click Install.

**Conclusions**

During this work, we learned how to install new programs, uninstall them, update them and install new packages for the system. The following worked on the work: Dziubenko - working with virtualbox, Zasenko - searching for information in Ukrainian, translating the text and editing the file.