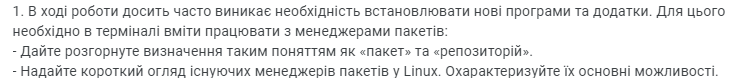
Work case №4

Зробив Когут Б.  
  
  
While working, it is often necessary to install new programs and applications. To do this, you need to know how to work with package managers in the terminal:

* Provide a detailed definition of the terms "package" and "repository."
* Give a brief overview of the existing package managers in Linux. Describe their main features.

**A package** is an archive (a file) that contains a program and everything it needs to work. This includes the program's code, additional files, and instructions on how to install the program on your computer. For example, when you want to install a browser or a text editor, you download the relevant package.

**A repository** is an online location where all these packages are stored. It’s like a library or warehouse of programs, where you can easily download and install the software you need using special tools.

Package Managers:

**APT (Advanced Package Tool)** — used in Ubuntu and similar systems:

Command to install a program: sudo apt install package\_name.

**Yum/DNF** — used in Fedora and Red Hat:

Command to install a program: sudo dnf install package\_name.

**Pacman** — used in Arch Linux:

Command to install a program: sudo pacman -S package\_name.

**Zypper** — used in openSUSE:

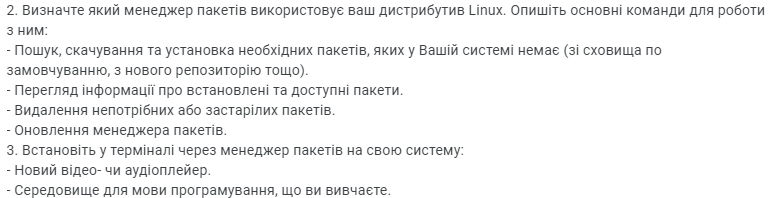
Command to install a program: sudo zypper install package\_name.

**Snap and Flatpak** — newer methods to install programs that work across different systems:

Snap example: sudo snap install package\_name.

Flatpak example: sudo flatpak install repo\_name package\_name.

Зробив Трощинський Ярослав



2. Determine which package manager uses your Linux distribution. Describe the main commands to work with it:

- search, download and install the necessary packages that are not in your system (from the default repository, from a new repository, etc.).

- View information about installed and available packages.

- Removal of unnecessary or outdated packages.

- Upgrade the package manager.

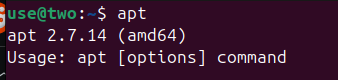
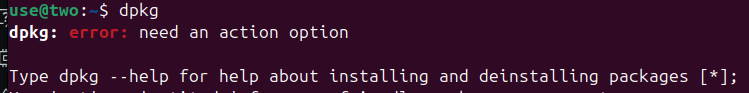
3. Set in the terminal through the package manager on your system:

- New video or audio player.

- the programming language environment you are studying.

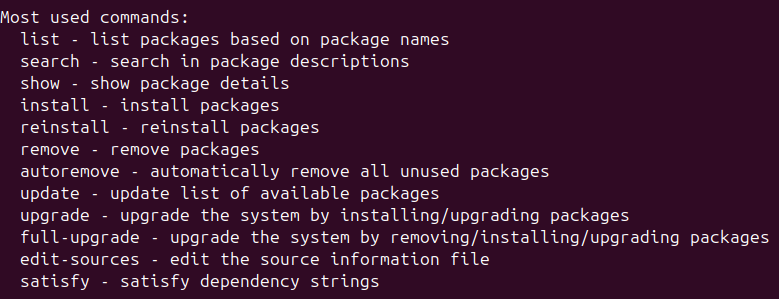
2.

* I have a Ubuntu distribution, so my package manager is apt or dpkg, so I tried apt and dpkg commands in terminal, and got this results



From this results I can say that I have a apt manager

* If you type in terminal apt it will give you a version of package manager and list of most used commands



* To find needed package you can use a command

apt list *keyword*

And if your search list is too big you can send this list in the ,txt file via

cd *your\_directory*

apt list *keyword*>*name\_of\_txt\_file*

To download found package you can use a command

sudo apt install *package\_name*

And it will be downloaded and after this automatically installed

* To see installed packages we can use a command

apt list --installed

* And to remove package we can use a command

sudo apt remove *package\_name*

To remove unused packages we can use a command

sudo apt autoremove

To update all packages we can use a command

sudo apt update

* To upgrade package manager we can use a command

sudo apt upgrade

3.

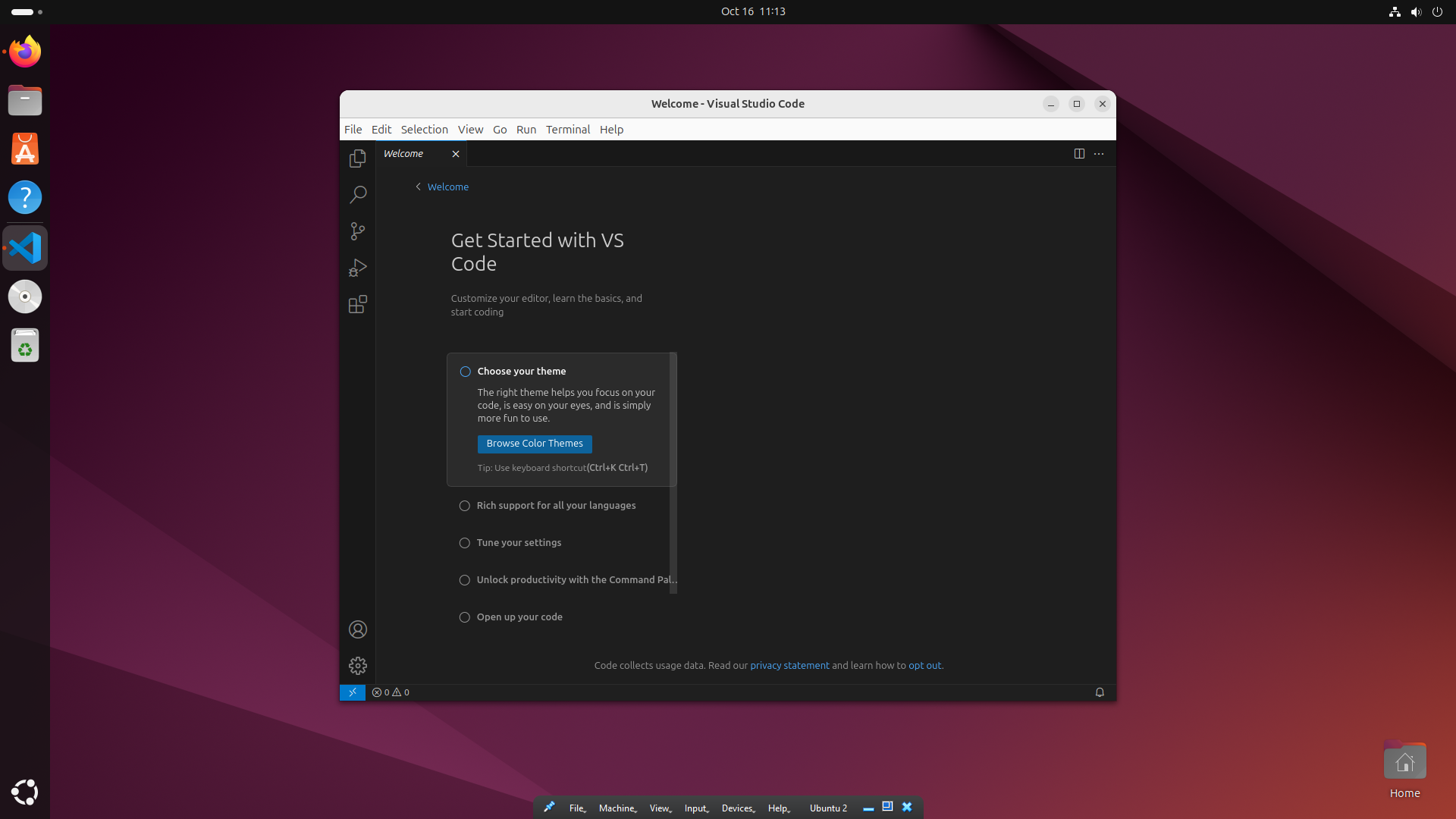
* I chose a VLC media player, to install it we can use a command

sudo apt install vlc

* To download C++ environment I chose to download a Visual Studio Code. For this I`ll need to firstly download .deb file from the official site of VSCode, and then we need to use this command

sudo apt install Downloads/code\*

After installing we can see VSCode in “Show apps” menu

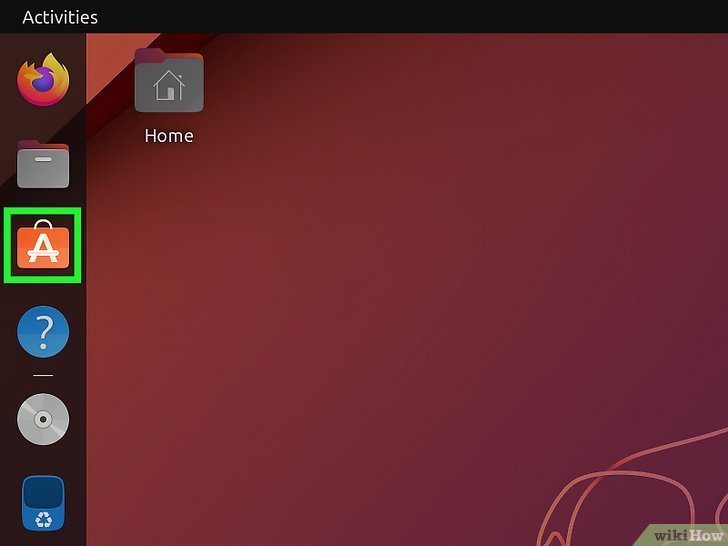


4.

### 1. Using App Stores

#### Ubuntu Software Center (for Ubuntu)

1. **Open**: Find the "Ubuntu Software" icon in the launcher or through the menu.



**Search for the Program**: Use the search field to find the desired application. You can also browse categories.

**Select the Program**: Click on the application to view details such as description, ratings, and reviews.

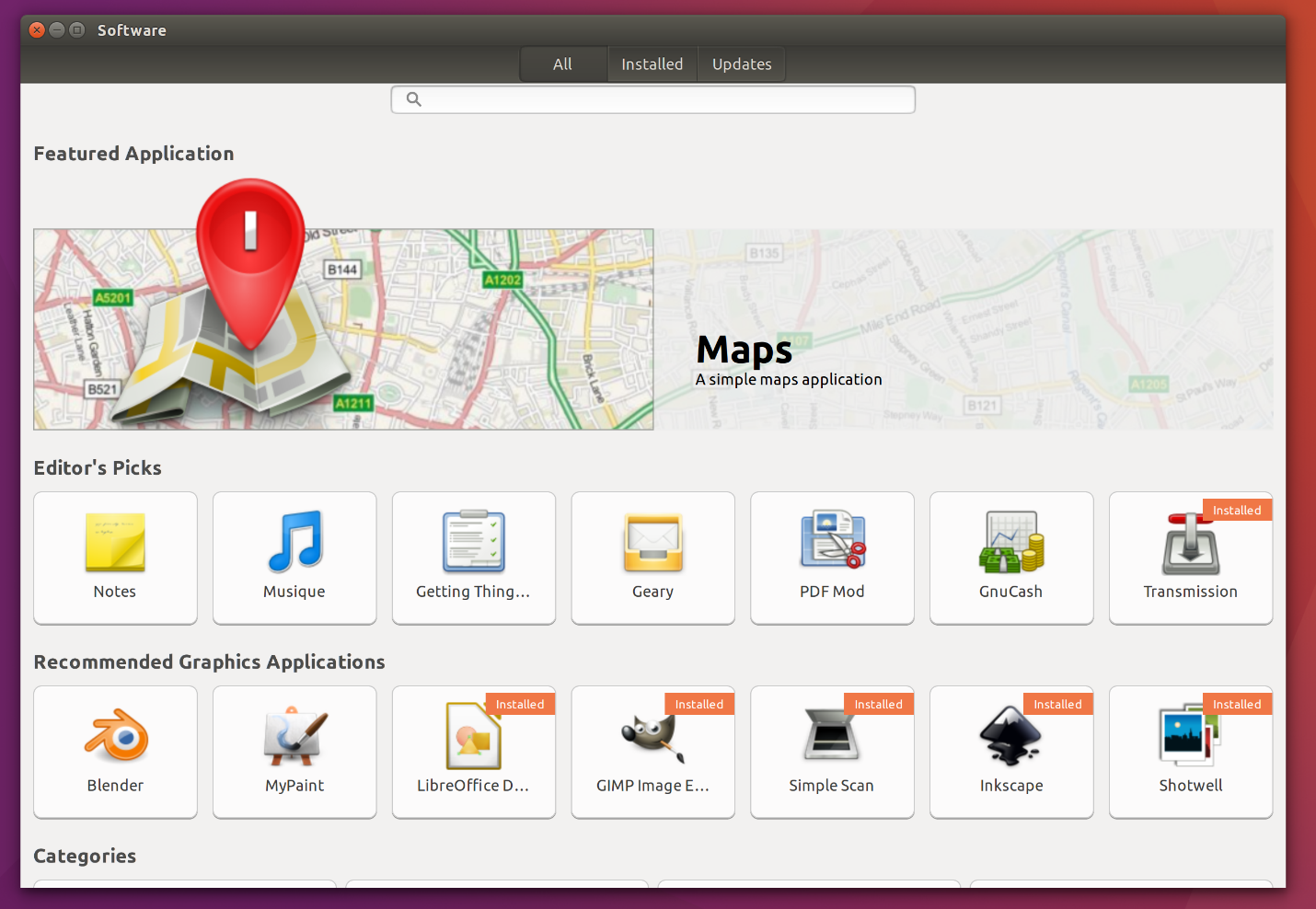
**Install**: Click the "Install" button. You may need to enter your password for confirmation.

**Run the Program**: After installation, you can find the application in the menu or on the launcher.

### 2. Using Package Managers

#### GNOME Software (for Debian/Ubuntu-based distributions)

1. **Open**: Find and launch "Software" or "GNOME Software" from the menu.



**Browse or Search**: Click on "Installed" to view already installed applications or "Categories" to browse applications by category. You can also use the search function.

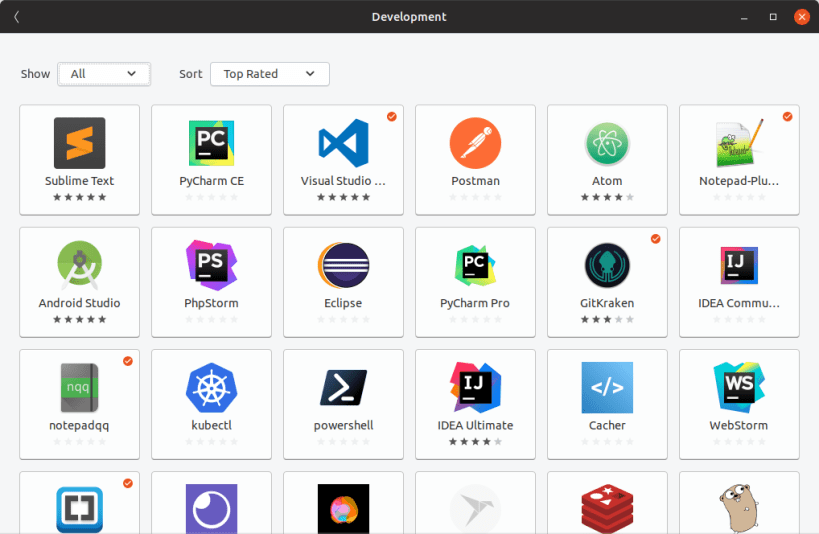
**Install the Program**: Find the application you want to install and click "Install".

**Confirmation**: Enter your password if prompted.

**Run the Program**: The application will appear in the applications menu.

### 4. Using Snap Store

1. **Open**: Launch Snap Store (if installed).



**Search for the Program**: Use the search field or browse categories.

**Install**: Click on the desired program, then click "Install".

**Confirmation**: Enter your password if needed.

**Run the Program**: Find the application in the menu.

**Conclusion:**

Linux package management through the terminal is a powerful tool for installing, updating, and uninstalling software. Knowing the package manager of your distribution, as well as the basic commands, can make working with the system much easier. For users who prefer a graphical interface, the presence of application stores makes it easy to find and install the desired programs without using the command line.