**Workcase 4**

**Команда** Defense of the Ancients

**Виконували студенти группи КСМ-13Б**

**Міньков Ілля**

**Колотуша Микола**

**Виконав Колотуша Микола**

**1.Package and Repository Definitions:**

Package: A package is a collection of files and metadata that make up a software application. It typically includes executable files, libraries, configuration files, and information about the package's version and dependencies.

Repository: A repository, often referred to as a repo, is a centralized location that stores software packages. It can be thought of as a collection of packages, organized into categories and maintained by a package manager. Repositories contain packages that can be easily installed, updated, or removed from a system.

Overview of Package Managers in Linux:

There are several package managers in Linux, each specific to the Linux distribution it serves. Some of the most common package managers include:

APT (Advanced Package Tool): Used in Debian-based distributions such as Debian, Ubuntu, and Linux Mint. APT provides commands like apt-get and apt.

YUM (Yellowdog Updater, Modified): Used in Red Hat-based distributions such as CentOS and Fedora. YUM provides commands like yum.

DNF (Dandified YUM): A replacement for YUM, used in newer versions of Fedora.

Zypper: Used in openSUSE distributions. Zypper provides commands like zypper.

Pacman: Used in Arch Linux. Pacman provides commands like pacman.

Portage: Used in Gentoo. Portage provides commands like emerge.

Apk: Used in Alpine Linux. Apk provides commands like apk.

**Виконав Колотуша Микола**

**2.Package Manager in Your Linux Distribution:**

To determine the package manager used in your specific Linux distribution, you can usually check your distribution's documentation or execute the following command:

bash

which package-manager

Common package manager commands:

Search, Download, and Install Packages:

APT (Debian/Ubuntu):

Search: apt search package-name

Download and Install: sudo apt install package-name

YUM/DNF (Red Hat/CentOS/Fedora):

Search: yum search package-name or dnf search package-name

Download and Install: sudo yum install package-name or sudo dnf install package-name

Pacman (Arch Linux):

Search: pacman -Ss package-name

Download and Install: sudo pacman -S package-name

View Package Information:

APT (Debian/Ubuntu): apt show package-name

YUM/DNF (Red Hat/CentOS/Fedora): yum info package-name or dnf info package-name

Pacman (Arch Linux): pacman -Si package-name

Remove Packages:

APT (Debian/Ubuntu): sudo apt remove package-name

YUM/DNF (Red Hat/CentOS/Fedora): sudo yum remove package-name or sudo dnf remove package-name

Pacman (Arch Linux): sudo pacman -R package-name

Update Package Manager:

APT (Debian/Ubuntu): sudo apt update

YUM/DNF (Red Hat/CentOS/Fedora): sudo yum update or sudo dnf update

Pacman (Arch Linux): sudo pacman –Syu

**Виконав Міньков Ілля**

**3.Installing New Software:**

In your terminal, use your package manager to install a new video or audio player, and a programming language environment:

For example, in Ubuntu (using APT):

Video Player (VLC): sudo apt install vlc

Audio Player (Rhythmbox): sudo apt install rhythmbox

Python (if you're learning Python): sudo apt install python3

**Виконав Міньков Ілля**

**4.Installing Software via GUI App Stores and Package Managers:**

In many Linux distributions, you can use graphical tools and app stores to install software:

Ubuntu Software Center: In Ubuntu, you can use the "Ubuntu Software" application to search and install software with a graphical interface.

GNOME Software: This is a universal app store available in many GNOME-based distributions.

Discover: Used in KDE Plasma for managing software.

The process usually involves searching for the application, selecting it, and clicking an "Install" button. These tools interact with the underlying package manager to download and install the software for you. The steps may vary slightly depending on your Linux distribution and desktop environment.