

INSTALLING SOFTWARE IN UBUNTU LINUX

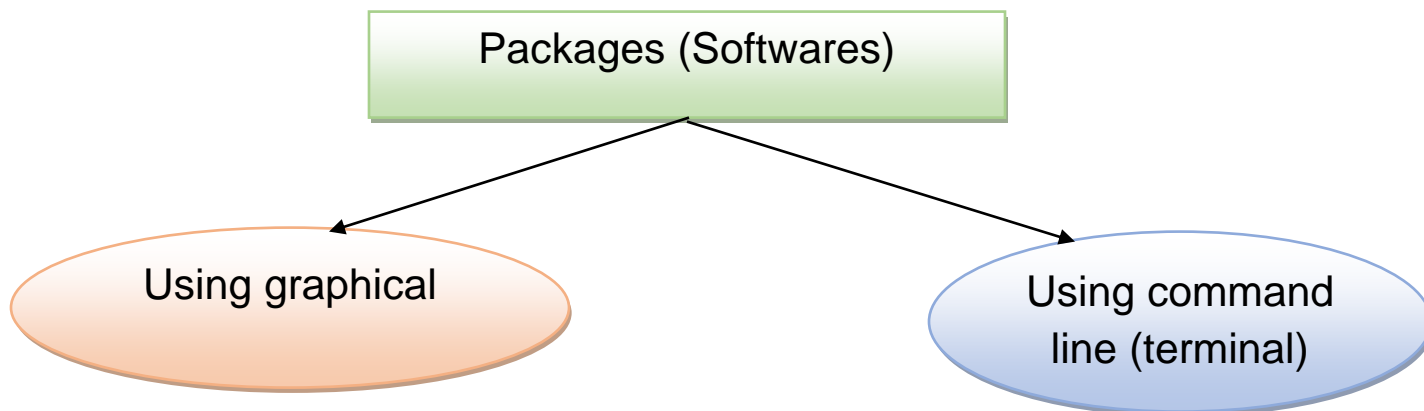
INSTALLING SOFTWARE IN LINUX

PACKAGES

- Compiled collection of executable and data files into a single file called as “package” file
- Software tends to come in “**packages**”. In the windows OS, a package is a “**setup.exe**” or an “**application.msi**” or a “**program.zip**”. On a Mac OS, a package is a “**program.dmg**” or a “**program.sit**” file. In the Linux OS, there are several kinds of packages and each distribution has its own preferred package format. (**Ex.** .rpm, .deb, etc)
- The contents of the package are
 - Particular product information
 - Program files, Icons
 - List of commands
 - Man pages, configuration files
 - Shared libraries, etc, ...
- In linux, software packages have different formats like “.rpm, .deb, .sh, .tar.gz, .tgz, tar.xz or any other archives” etc, ...
- Packages are distributed either in “**Binaries form**” or “**Source form**”
- **Source form** is a file (downloaded file) containing all the source code for the application, we want to install, unpack it and compile it on our system.
- Packages are either installed from distribution CD or local disk or download from various web sites

Methods

- In linux, the softwares can be installed using graphically or using the command line



Using graphical method

- Each linux distribution has own software center for installing and managing softwares (packages)

Using Terminal

- It is possible to install, remove and update packages using package manager (package tool) in linux terminal

Package Manager

- In windows, there is **no package manager**. We can directly install softwares using admin rights
- To install packages on linux, we need to use proper package manager
- It is a sub system on linux, that manages the packages (softwares) on the computer
- It's an important component of Linux, in that it keeps track of everything installed; downloads packages; ensures all packages are installed in a common location; helps to upgrade packages; resolves

dependencies; and keeps users from having to install from source code.

- Linux distributions are differentiated based on the selection of package manager.
- **Example**
 - Debian and Ubuntu use [dpkg and apt package tools](#)
 - Redhat, centos and fedora use [yum package tool](#)
- Each package manager works with a different file type.
- For example, apt works with **.deb files**, yum or zipper tool works with **.rpm files**.
- The apt package manager cannot install .rpm files and neither yum or zipper tool can install .deb files

Main Package Management standards

RPM ([R](#)edHat [P](#)ackage [M](#)anager)

- It is a packaging system originally developed by RedHat & widely used in the Linux community
- Supported distributions: Fedora, Mandriva, Red Hat (naturally), CentOS, SUSE, etc, ...
- A rpm package file will be named something like “**program-version-other.rpm**”
- Format: [.rpm](#)

DEB (Debian Package Manager)

- It is an another popular package format
- It was introduced by Debian distribution
- Distributions using it include Ubuntu, Knoppix, Mepis, Debian (naturally), Linux Mint
- A deb package file will be named something like “**program-version-other.deb**”
- Format: **.deb**

Tarballs

- It was compatible with all Linux distributions
- Format: **.tar.gz, .tar.bz2, etc, ..**
- Each package manager depends on the format & metadata of the packages it can manage

1. INSTALLING SOFTWARE IN **REDHAT LINUX**

- RPM (RedHat Package Manager) is a famous tool for installing softwares in RedHat Linux
- Main Operations of RPM command
 1. Querying and verifying packages
 2. Installing, upgrading, and removing packages

RPM Command Options

- i ← used for install package
- e ← used for remove package
- U ← used for update package

(i) Install

- To install software, use the following command

```
rpm -i <package-name>
```

(ii) Remove

- To remove software, use the following command

```
rpm -e <package-name>
```

(iii) Upgrade

- To upgrade software, use the following command

```
rpm -U <package-name>
```

NOTE

- It is an important to note that, the commands used in linux is case sensitive.

2. INSTALLING SOFTWARE IN **DEBIAN LINUX**

- Debian Linux provides two popular command tools for installing packages in ubuntu linux. They are
 1. dpkg
 2. apt
- APT (Advanced Package Tool) is a wonderful package management system
- It consists of different tools, which names usually begins with “apt-”: apt-get, apt-cache, apt-cdrom, etc ...
- Complete command is “**apt-get**” and it's the easiest way to install files / softwares packages in Debian based Linux distributions

(i) **Install**

- To install software, use the following command

```
apt-get install ${packagename}
```

(ii) **Remove**

- To remove / uninstall any software, use the following command

```
apt-get remove ${packagename}
```

(iii) **Update**

- Apt keeps a local database on user hard drive with a list of all available packages
- This database needs to be explicitly updated
- To update apt database, use the following command

```
apt-get update
```

(iv) Information about package

- Apt-cache is used to give more about package & its description (dependencies, functionalities, maintainer's identity, etc, ...)
- To know more about a package and its description

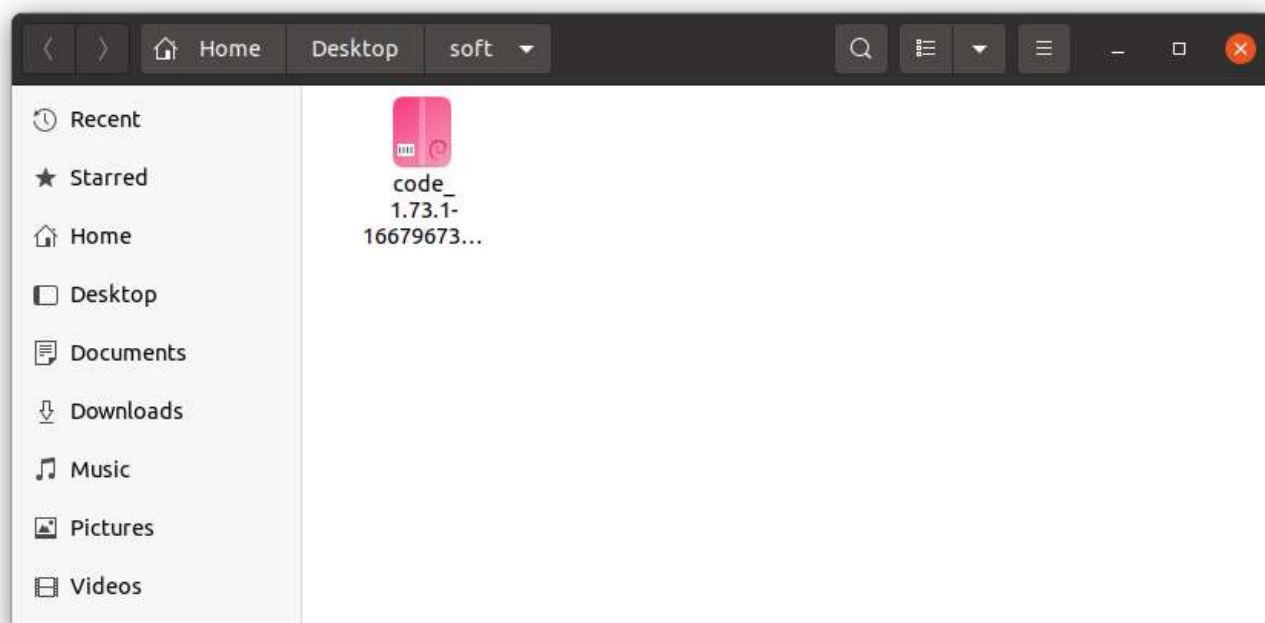
```
apt-cache show <packagename>
```

I. INSTALLING VISUAL STUDIO CODE DEB PACKAGE VIA **COMMAND LINE**

Package	:	Visual Studio Code (VSC) Editor
Type of Install	:	Command Line
Type of the Package	:	.deb
Tested OS	:	Ubuntu OS

Step 1: Download the package of VSC Editor from Internet

Step 2: create an optional directory named **soft (user defined folder)**



Step 3: Navigate the path to current folder named **soft** which contains DEB software

A terminal window titled 'itadmin@PRLAB-6: ~/Desktop/soft'. The prompt is 'itadmin@PRLAB-6:~/Desktop\$'. The user enters 'cd soft', and the prompt changes to 'itadmin@PRLAB-6:~/Desktop/soft\$'. Then, the user enters 'ls', and the output is 'code_1.73.1-1667967334_amd64.deb'.

```
itadmin@PRLAB-6:~/Desktop$ cd soft
itadmin@PRLAB-6:~/Desktop/soft$ ls
code_1.73.1-1667967334_amd64.deb
itadmin@PRLAB-6:~/Desktop/soft$
```

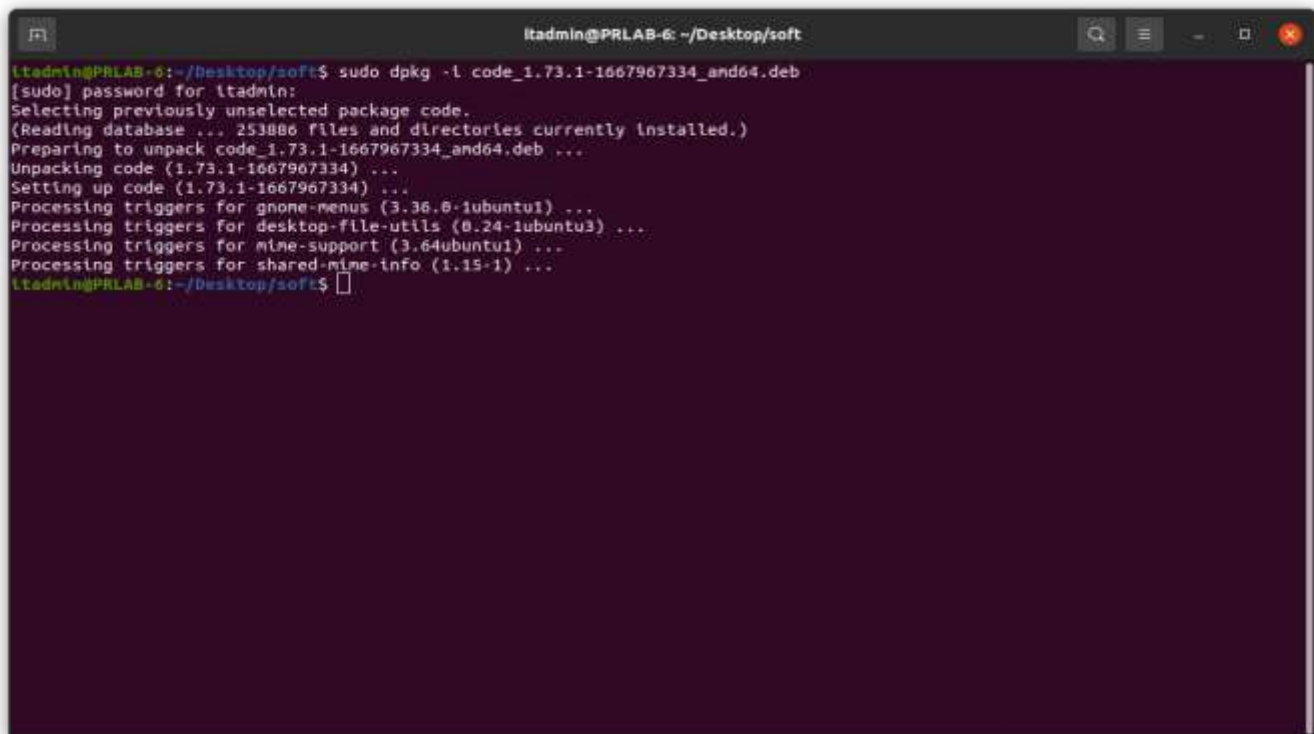
Step 4: Install the Visual Studio Code Manually using dpkg command with root permission

Command `sudo dpkg -i code_1.73.1-1667967334_amd64.deb`

A terminal window titled 'itadmin@PRLAB-6: ~/Desktop/soft'. The prompt is 'itadmin@PRLAB-6:~/Desktop/soft\$'. The user enters 'sudo dpkg -i code_1.73.1-1667967334_amd64.deb'. The terminal shows the following output: '[sudo] password for itadmin:', 'Selecting previously unselected package code.', '(Reading database ... 253886 files and directories currently installed.)', 'Preparing to unpack code_1.73.1-1667967334_amd64.deb ...', and 'Unpacking code (1.73.1-1667967334) ...'.

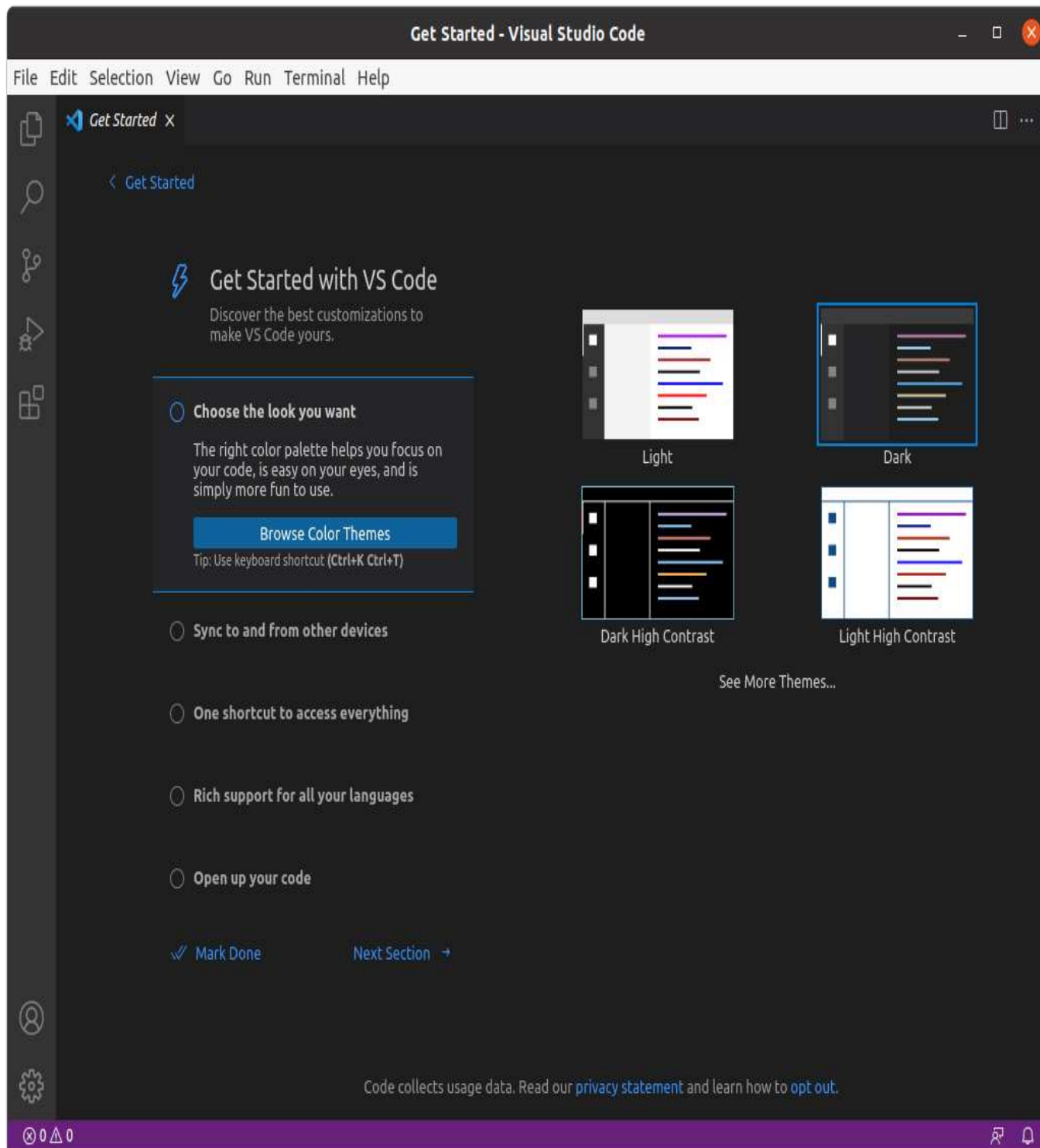
```
itadmin@PRLAB-6:~/Desktop/soft$ sudo dpkg -i code_1.73.1-1667967334_amd64.deb
[sudo] password for itadmin:
Selecting previously unselected package code.
(Reading database ... 253886 files and directories currently installed.)
Preparing to unpack code_1.73.1-1667967334_amd64.deb ...
Unpacking code (1.73.1-1667967334) ...
```

Installation Progress in Ubuntu Terminal



```
ltadmin@PRLAB-6: ~/Desktop/soft
ltadmin@PRLAB-6:~/Desktop/soft$ sudo dpkg -i code_1.73.1-1667967334_and64.deb
[sudo] password for ltadmin:
Selecting previously unselected package code.
(Reading database ... 253886 files and directories currently installed.)
Preparing to unpack code_1.73.1-1667967334_and64.deb ...
Unpacking code (1.73.1-1667967334) ...
Setting up code (1.73.1-1667967334) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu1) ...
Processing triggers for desktop-file-utils (0.24-1ubuntu3) ...
Processing triggers for mime-support (3.64ubuntu1) ...
Processing triggers for shared-mime-info (1.15-1) ...
ltadmin@PRLAB-6:~/Desktop/soft$
```

VERIFICATION OF NEWLY INSTALLED VSC PACKAGE

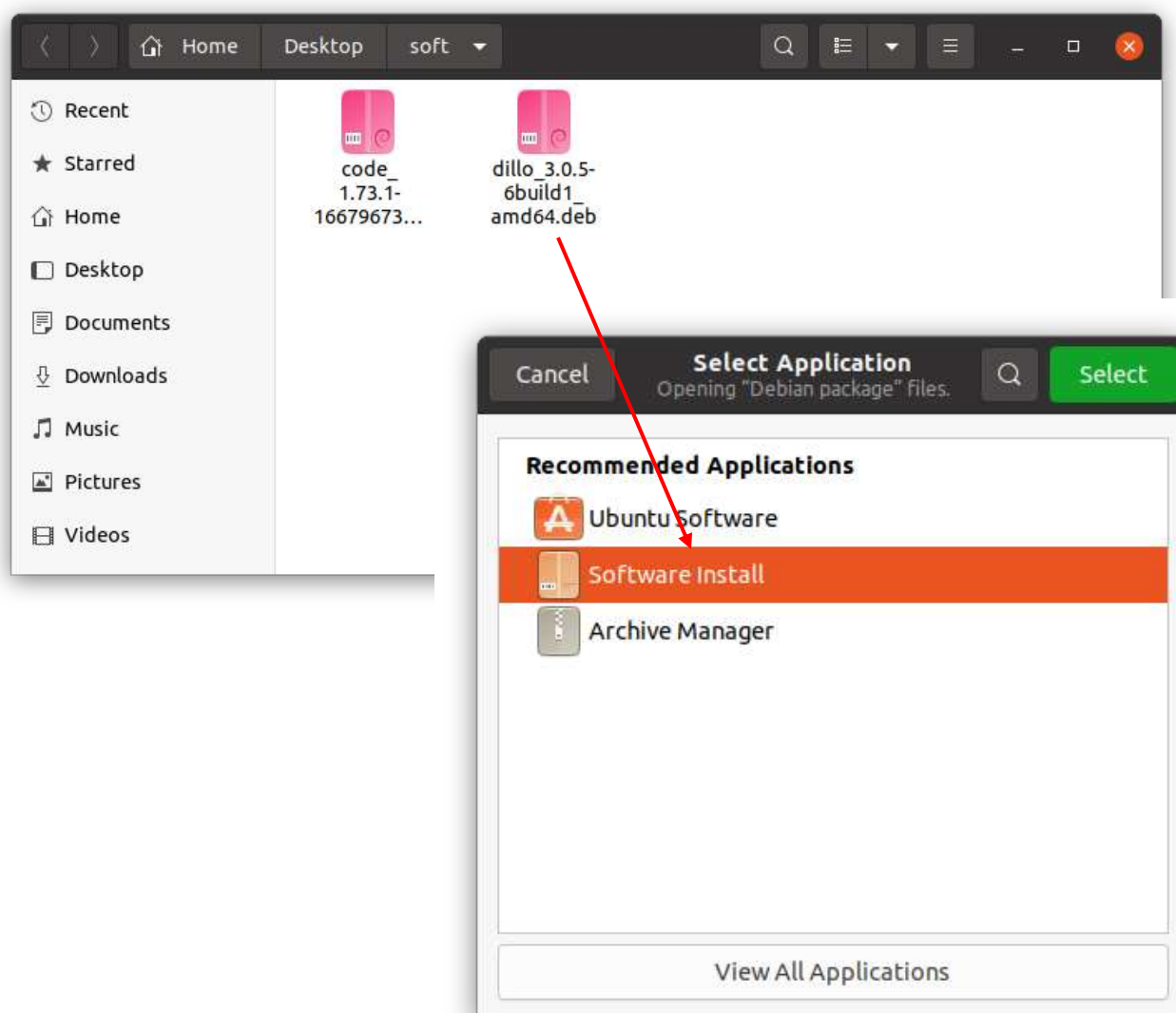


II. INSTALLING VISUAL STUDIO CODE DEB PACKAGE VIA AUTOMATIC

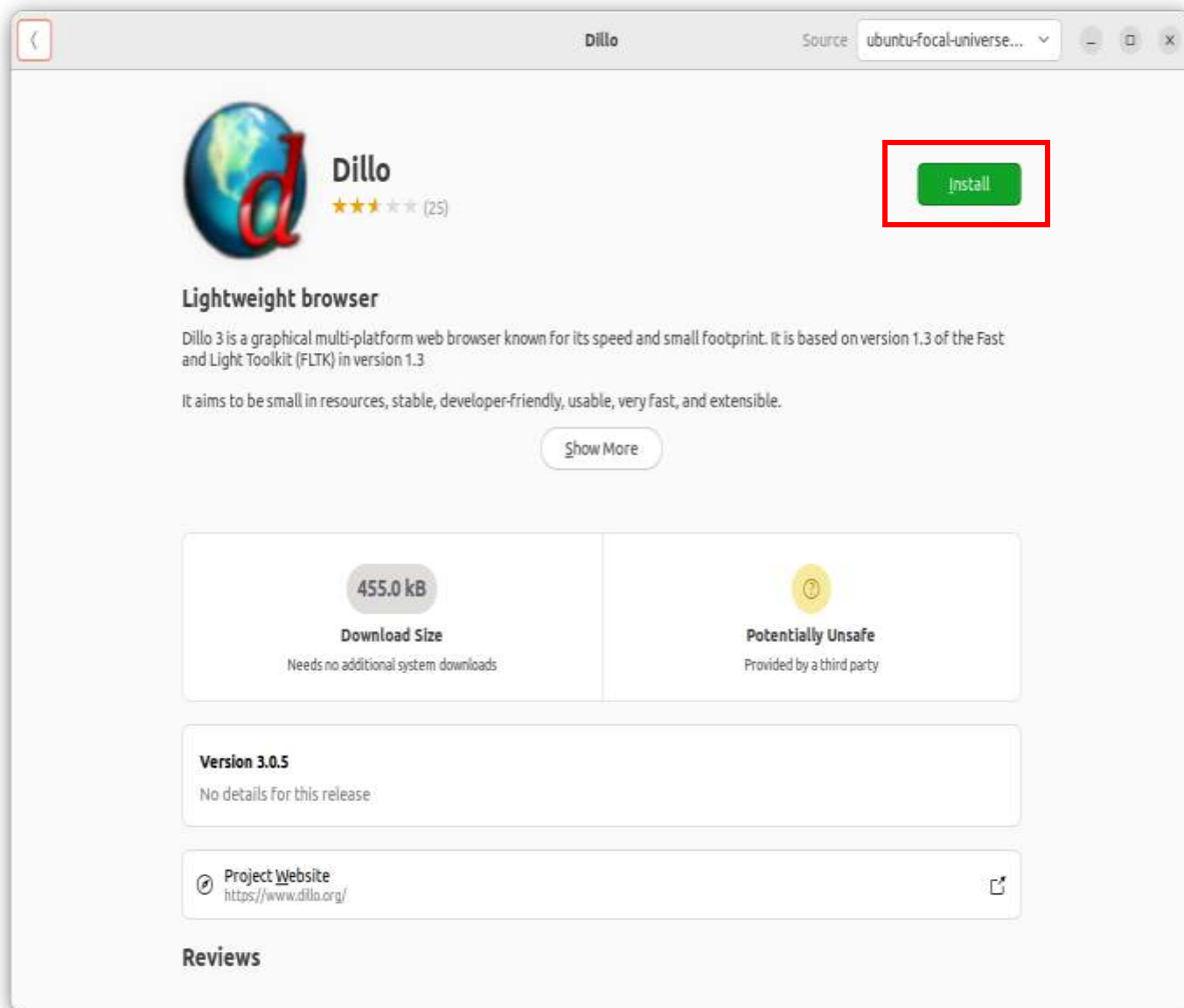
Package : Dillo Browser
Type of Install : **Automatic (Visual Installer)**
Type of the Package : **.deb**
Tested OS : Ubuntu OS

Step 1: download the DEB package of dillo browser and copy it to input directory named soft

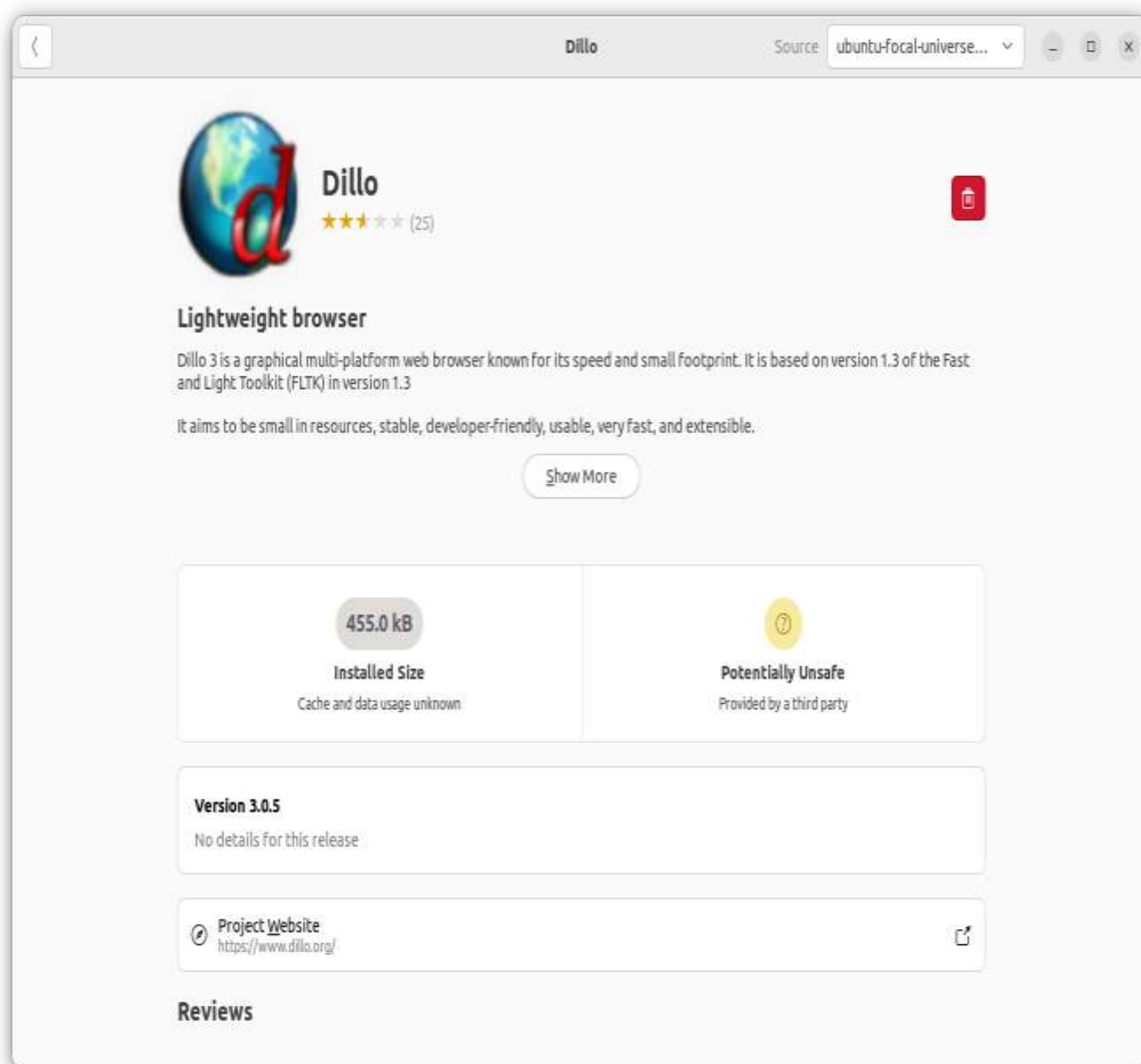
Step 2: Contents of Directory named soft



Step 3: Installing Dillo Browser via “Software Install” option





INSTALLED DETAILS OF DILLO BROWSER



The screenshot shows the 'Dillo' application's installed details window. At the top, the window title is 'Dillo'. The header area includes the Dillo logo (a globe with a red 'd'), the name 'Dillo', a 4-star rating with '(25)' reviews, and a red square icon with a white document symbol. Below the header, the title 'Lightweight browser' is followed by a description: 'Dillo 3 is a graphical multi-platform web browser known for its speed and small footprint. It is based on version 1.3 of the Fast and Light Toolkit (FLTK) in version 1.3'. A sub-description states: 'It aims to be small in resources, stable, developer-friendly, usable, very fast, and extensible.' A 'Show More' button is located below the description. The main content area is divided into two columns. The left column shows '455.0 kB' in a grey circle, followed by 'Installed Size' and 'Cache and data usage unknown'. The right column shows a yellow circle with a question mark, followed by 'Potentially Unsafe' and 'Provided by a third party'. Below these columns, a 'Version 3.0.5' section states 'No details for this release'. At the bottom, a 'Project Website' section shows the URL 'https://www.dillo.org/' with a link icon. The 'Reviews' section is partially visible at the bottom.

Dillo Source: ubuntu-focal-universe... ▾


 **Dillo** ★★★★★ (25) 

Lightweight browser



Dillo 3 is a graphical multi-platform web browser known for its speed and small footprint. It is based on version 1.3 of the Fast and Light Toolkit (FLTK) in version 1.3

It aims to be small in resources, stable, developer-friendly, usable, very fast, and extensible.

[Show More](#)

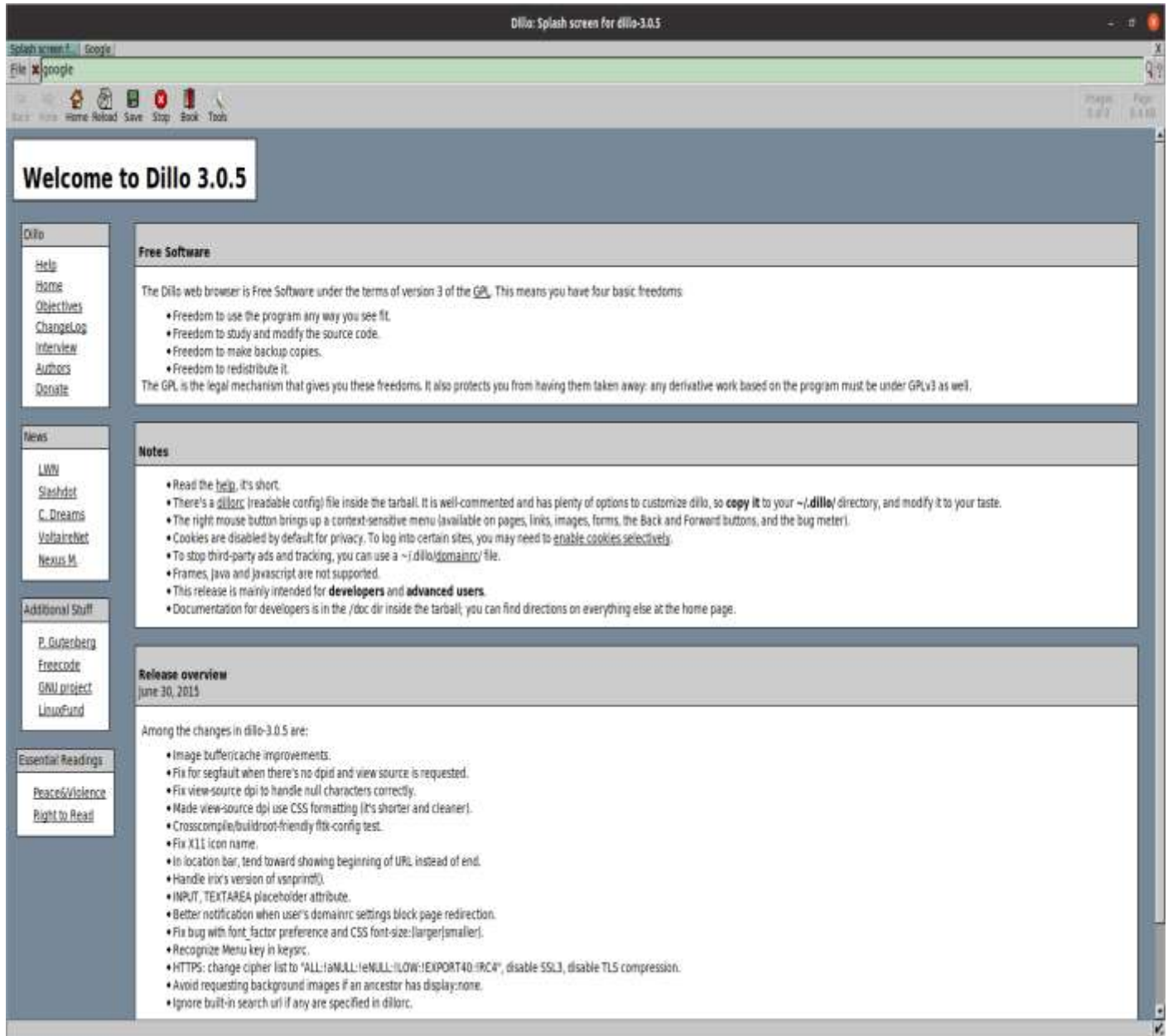
455.0 kB Installed Size Cache and data usage unknown	 Potentially Unsafe Provided by a third party
--	--

Version 3.0.5
No details for this release

 **Project Website**
<https://www.dillo.org/> 

Reviews

Home Page of Dillo Browser



Search Results of Dillo Browser – Google Image Search

