SOFTHORN CALCULATOR
USER MANUAL

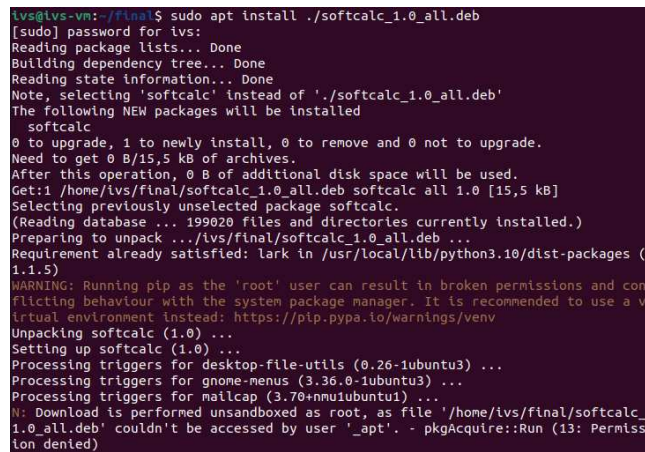# Contents

1 Introduction

This application was made for Ubuntu 64-bit. It is a simple calculator that can solve addition, subtraction, multiplication and division. There are also other functions like root, logarithmn, factorial and power. The calculator likewise supports usage of parentheses and decimal numbers.

2 Installation

1. Open up a terminal

2. Download debian package `softcalc_1.0_all.deb` in any directory you want

3. Execute following command in the same directory:
   `sudo apt install ./softcalc_1.0_all.deb`

Figure 1: Installation of Softhorn Calculator

2.1 Manual installation

Softhorn calculator needs certain dependencies to run correctly. You need to install `python3`, `python3-tk` and `lark` module for `python3`.
You can do so by running these commands:
```
sudo apt install python3
sudo apt install python3-tk python3-pip
pip3 install lark
```
Manual installation of Softhorn Calculator requires you to download repository via git. If you don't have git installed on your system you can do so by running this command in the terminal:
```
sudo apt install git
```
Right after that navigate to any directory where you wish to download our repository and execute following command:
```
git clone https://github.com/matusHubinsky/ivs-project-2
```

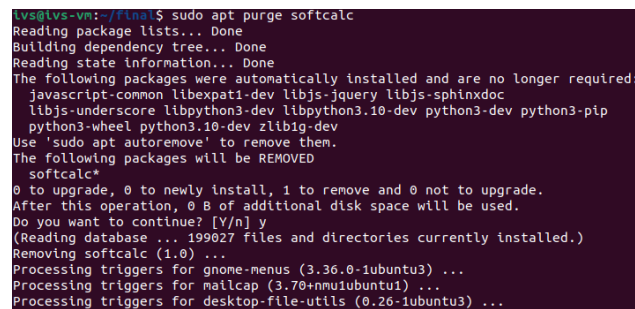Next, navigate to `src` directory and run following commands:

```
sudo mkdir /usr/share/softhorn/
sudo cp gui.py mathlib.py core.py /usr/bin/softhorn/
sudo cp icon.png /usr/share/pixmaps/
cd ../installer/
sudo cp softcalc /usr/bin
sudo cp softcalc.desktop /usr/share/applications
sudo chmod 775 /usr/bin/softhorn/gui.py
sudo chmod 775 /usr/bin/softcalc
```

You can use the calculator by running `softcalc` command in the terminal or by pressing Meta button on the keyboard and typing `softcalc` and pressing enter.

3   Uninstallation

To uninstall softhorn calculator execute following command from any directory in terminal:

```
sudo apt purge softcalc
```


Figure 2: Uninstallation of Softhorn Calculator

3.1   Manual uninstallation

If you wish to manually uninstall Softhorn Calculator open up a terminal and run these commands:

```
sudo rm -r /usr/bin/softhorn /usr/bin/softcalc
sudo rm /usr/share/pixmaps/icon.png
sudo rm /usr/share/applications/softcalc.desktop
```
You can also unistall all the dependencies you have installed earlier:
```
sudo apt remove python3-tk pyhon3-pip
```
Uninstalling `python3` is not recommended as many other programs depend on it.

4 Usage

Figure 3: Softhorn Calculator

In figure 3 you can see softhorn calculator.

To close Softhorn Calculator click on the small cross in the right-up corner. To minimize the application simply click on the button right next to small cross. Use `Help` button and then `Commands` button to show brief manual on how to use all the functions.

If you click on the display, you can use your keyboard to insert numbers and all other functions. Use the red button to delete previous characer or use backspace and use blue `C` button to clear whole display. Either press yellow = button or press enter to show the result.

Buttons from $0 - 9$ represent digits from $0 - 9$.
Standard arithmetic functions:

- $/$ – division

- $+$ – addition

- $-$ – substraction

- $*$ – multiplication

Bonus functions:

- ( ) – parentheses

- . – decimal point

Additional functions:

- ln – natural logarithm.
  Insert logarithm and then the value.

- $\sqrt[n]{x}$ – root.
  Insert degree of the root n press the root button and insert value of x

- x^n – power of a number
  Insert value x, then press the button and insert number n that will raise value of of x.

- $!$ – factorial
  Insert number and then factorial sign.