BRNO UNIVERSITY OF TECHNOLOGY
Faculty of Information Technology

PRACTICAL ASPECTS OF SOFTWARE DESIGN
2018/2019

User documentation

The Brave Chickens

Brno, April 22, 2019

Contents

1 Introduction

Ivs-chicken-calc is a simple GUI application that implements basic mathematical functions along with some goniometric functions, which are described in section 2.3. You can simply install the ivs-chicken-calc directly from the command line.

1.1 Requirements

In order to install the application you will need:

- Ubuntu 64bit system

- an internet connection

- have at least 40 MB of free space

- be able to enter in to the sudo mode

1.2 Installation

Open terminal and type: git clone https://github.com/PSilling/fit-ivs-2.git
(currently private) Wait until cloning is done. Locate to folder where you have been cloning the repository. Open the folder.
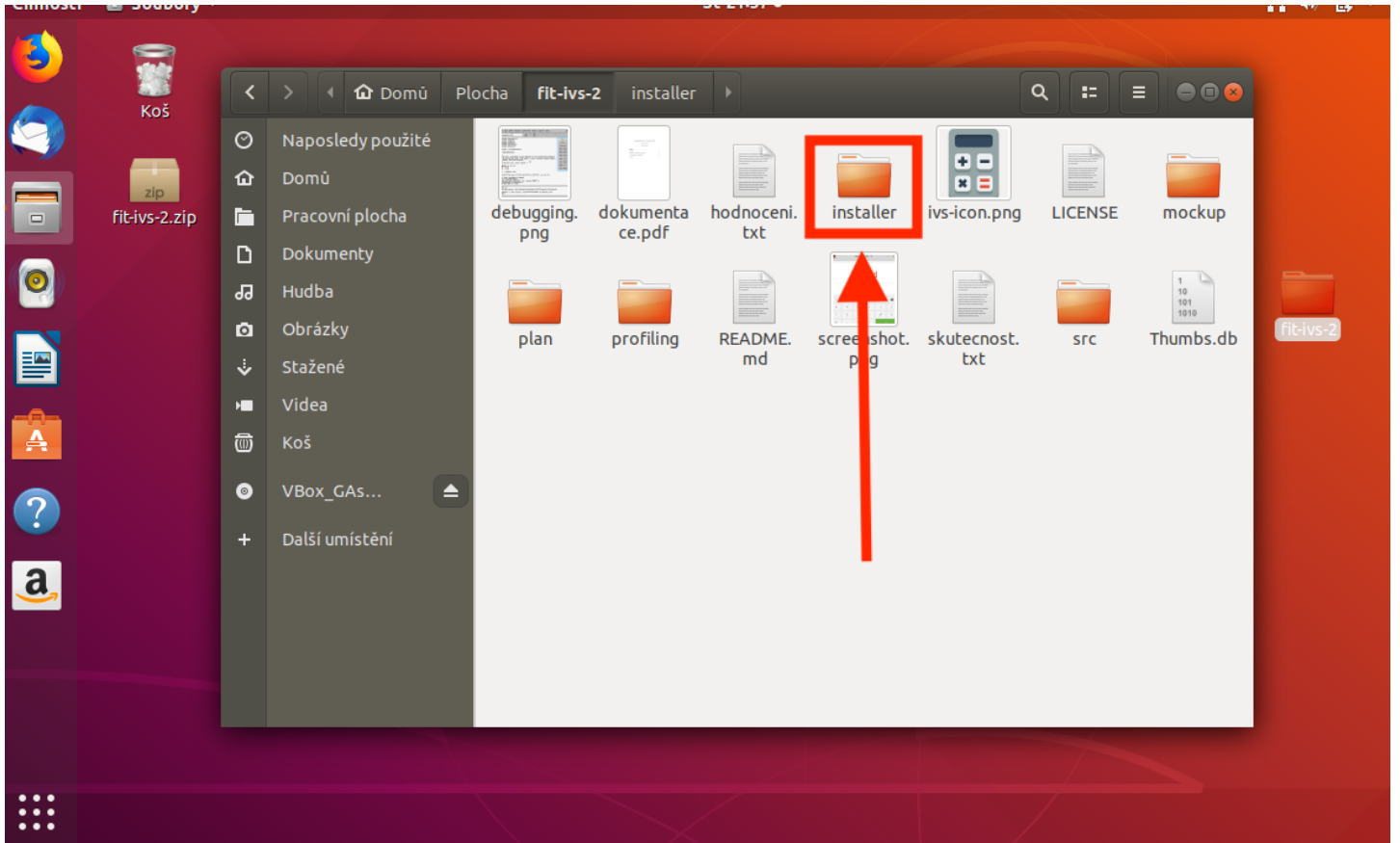Locate installer folder and double-click it to open it.
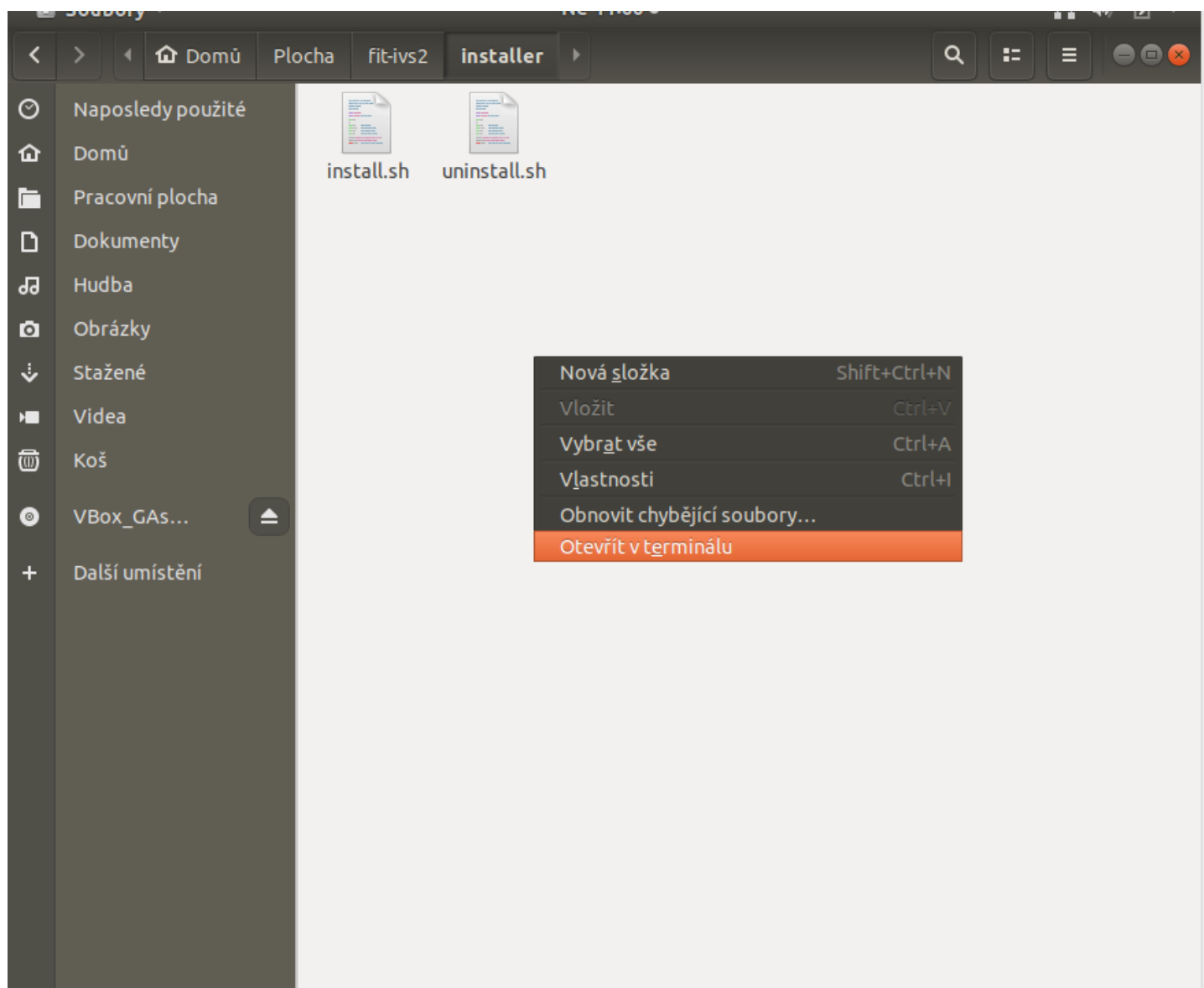

Figure 1: Double click on the installer folder

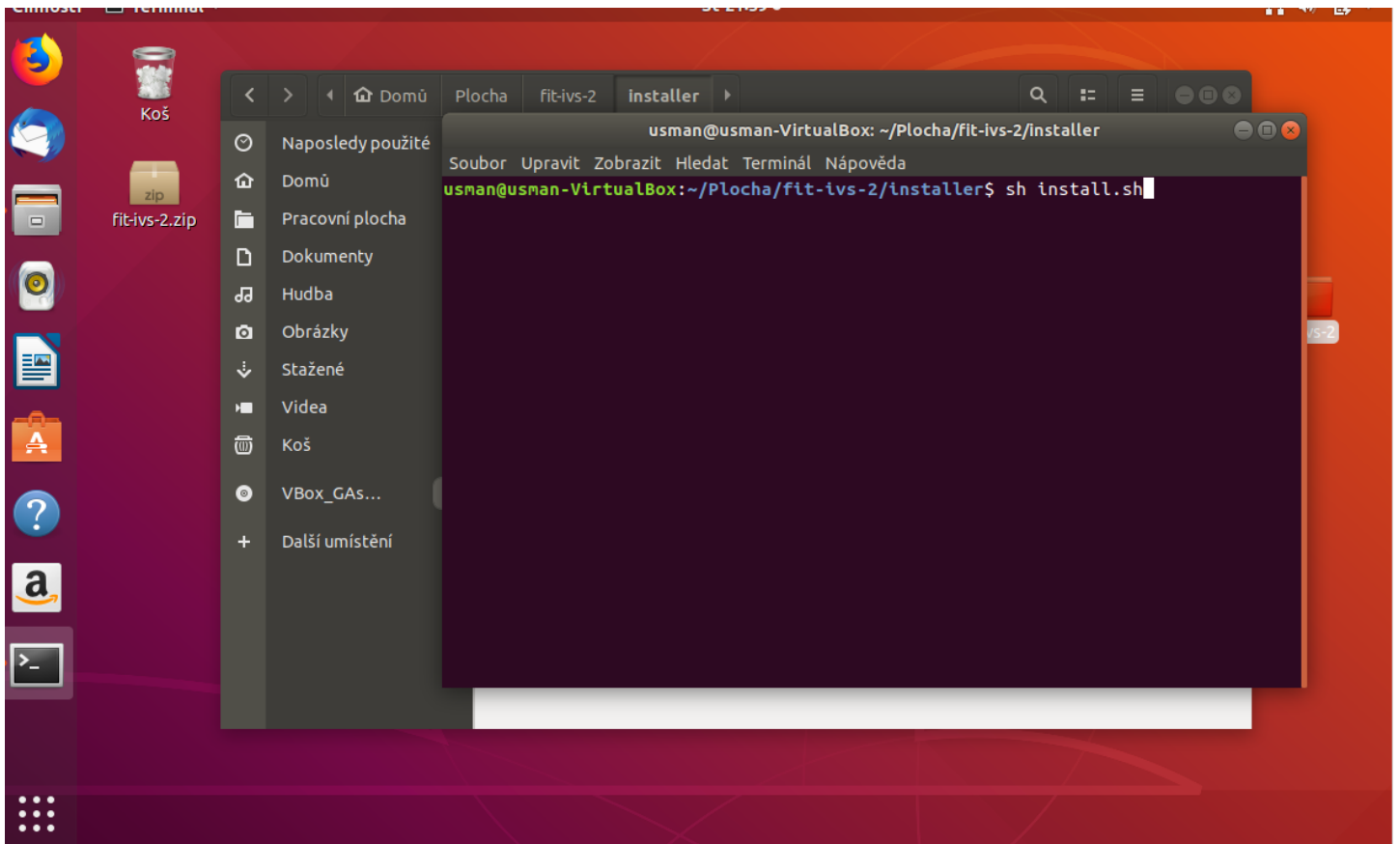Figure 2: Right-click into the window, click on the open terminal option
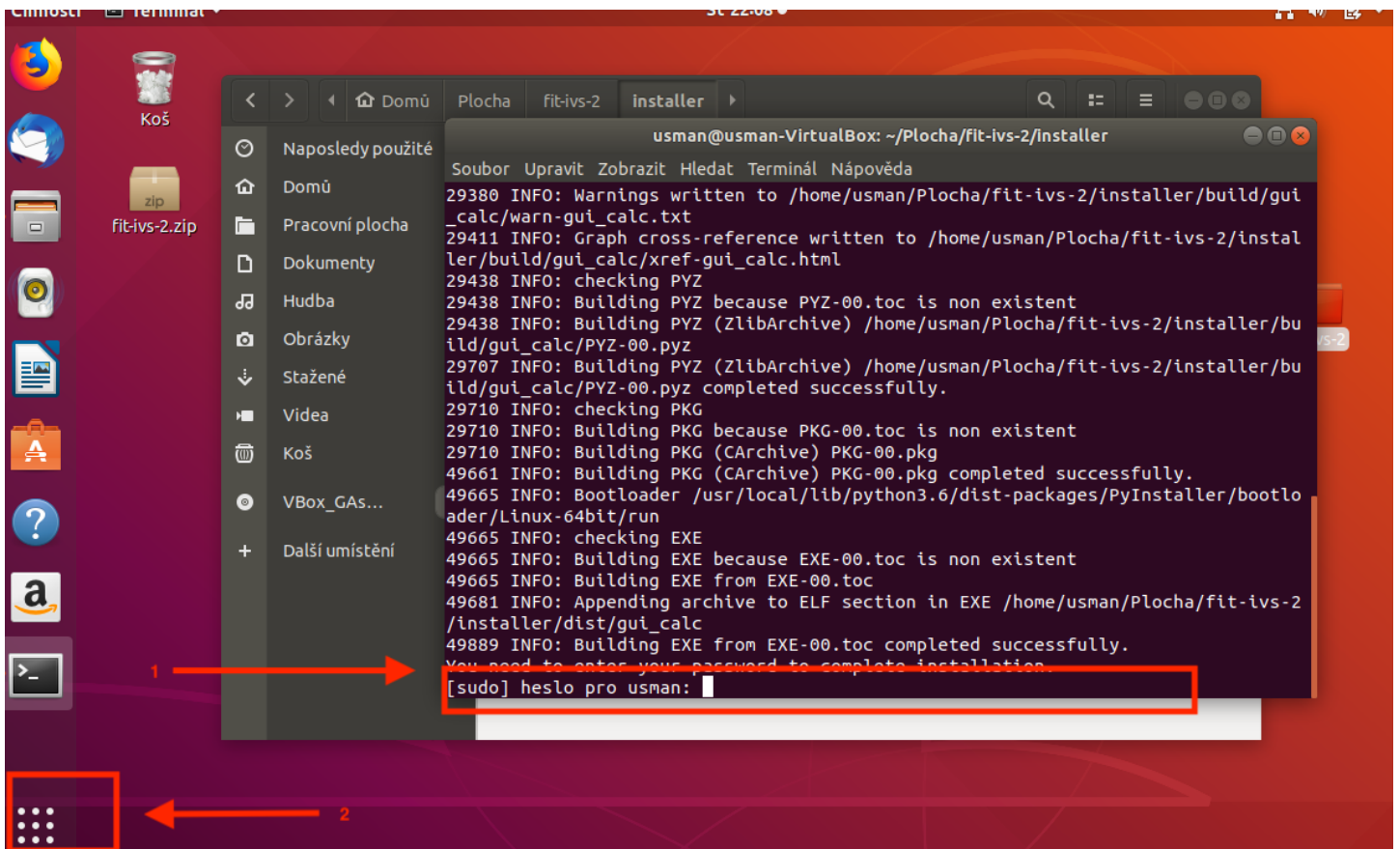
Figure 3: Type sh install.sh

Figure 4: Enter password and open application explorer

1.3 Uninstallation

In order to uninstall the application, you need to open application explorer as shown in . Type remove-chicken-calc and double click on the icon or press Enter.
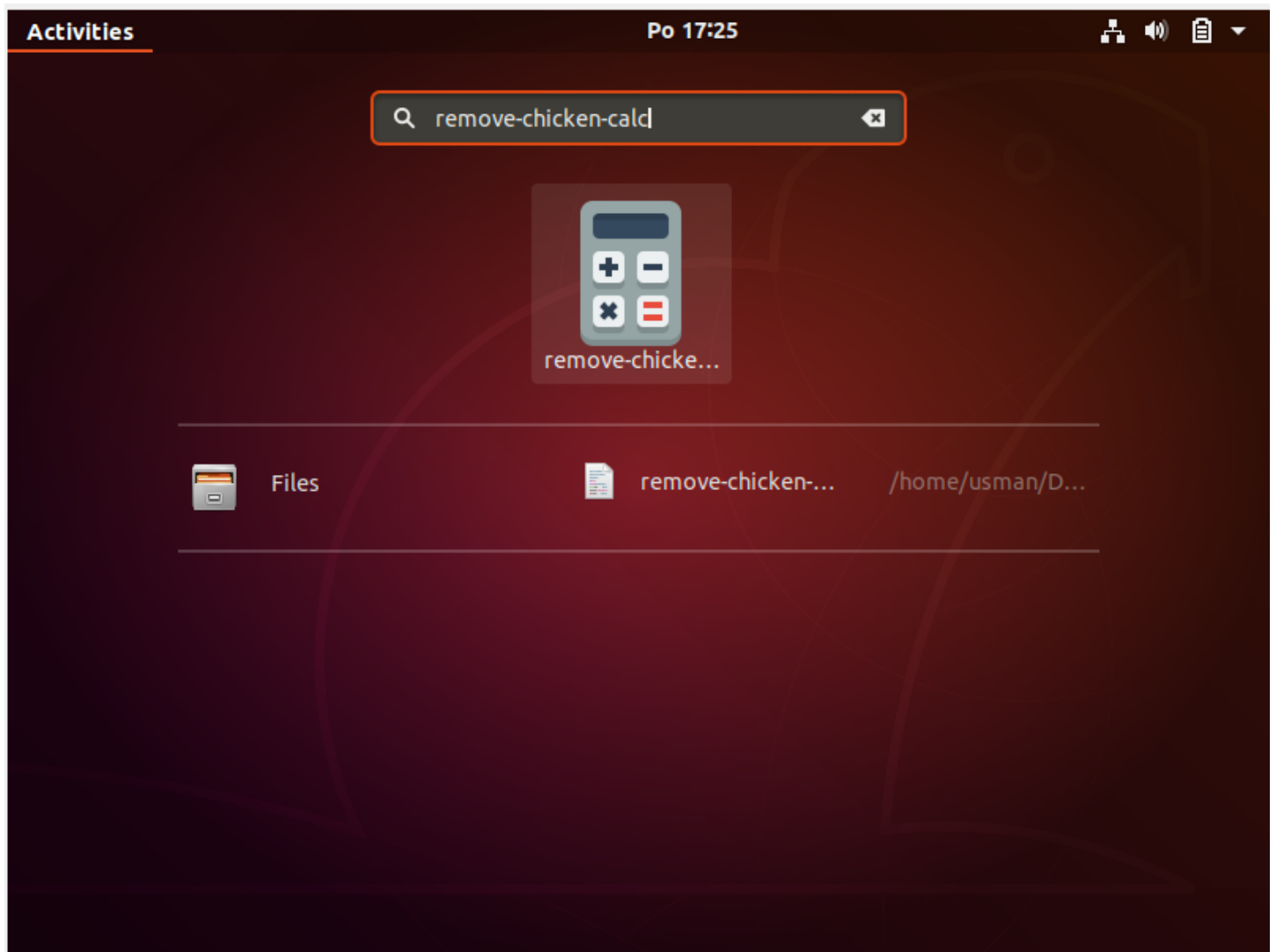
Figure 5: Type sh uninstall.sh

1.3.1 Manual installation and uninstallation

If the installer won't work, you can try installing the application manually. In that case, we expect you to be familiar with terminal and Linux operating system. Under no circumstances do not follow these steps if you are not familiar with the commands shown below!

We expect you to be in install folder.First, you need to create two .desktop files with the following setting:

```
[ Desktop  Entry ]
Version=1.0
Type=Application
Terminal=false
Exec=/usr/share/applications/gui_calc
Name=ivs−chicken−calc
Comment=Simple  calculator  with  GUI  for  second  IVS  project .
Icon=/usr/share/ivs−chicken−calc/ivs−icon .png
Categories=Utility
```

Figure 6: Save the file with name : ivs-chicken-calc

```
[ Desktop  Entry ]
Version=1.0
Type=Application
Terminal=true
Exec=/usr/share/applications/uninstall .sh
Name=remove−chicken−calc
Comment=Uninstaller  for  ivs−chicken−calc .
Icon=/usr/share/ivs−chicken−calc/ivs−icon .png
Categories=Utility
```

Figure 7: Save the file with name : remove-chicken-calc

Then you have to make sure you have pip3 installed, pyqt5 installed and pyInstaller installed.
If any of the programs above will be missing, installation won't succeed.
To install them type:

```
sudo  apt  install  python3−pip
pip3  install  pyqt5
pip3  install  pyinstaller
```

Figure 8: Install dependencies

Then type the following (assuming you are in install folder):

```
pyinstaller  −F  ../src/gui_calc .py
sudo  mv  ./ dist/gui_calc  /usr/share/applications
sudo  mkdir  /usr/share/ivs−chicken−calc
sudo  cp  ../ivs−icon .png  /usr/share/ivs−chicken−calc/
chmod  u+x  "uninstall .sh"
sudo  mv  ./uninstall .sh  /usr/share/applications/
cp  /usr/share/applications/uninstall .sh  ./
sudo  mv  ./ivs−chicken−calc .desktop  /usr/share/applications
sudo  mv  ./remove−chicken−calc .desktop  /usr/share/applications

sudo  rm  ./gui_calc .spec
sudo  rm  −rf  dist
sudo  rm  −rf  build
sudo  rm  −rf  ../src/__pycache__
```

In case you want to uninstall the application, open the terminal in the install folder and type following commands:

```
sudo rm /usr/share/applications/gui_calc
sudo rm -rf /usr/share/ivs-chicken-calc
sudo rm /usr/share/applications/ivs-chicken-calc.desktop
```

2 Usage

2.1 Run application

Open application explorer as shown on Figure 4, step 2. Type ivs-chicken-calc and double-click the application or hit enter.
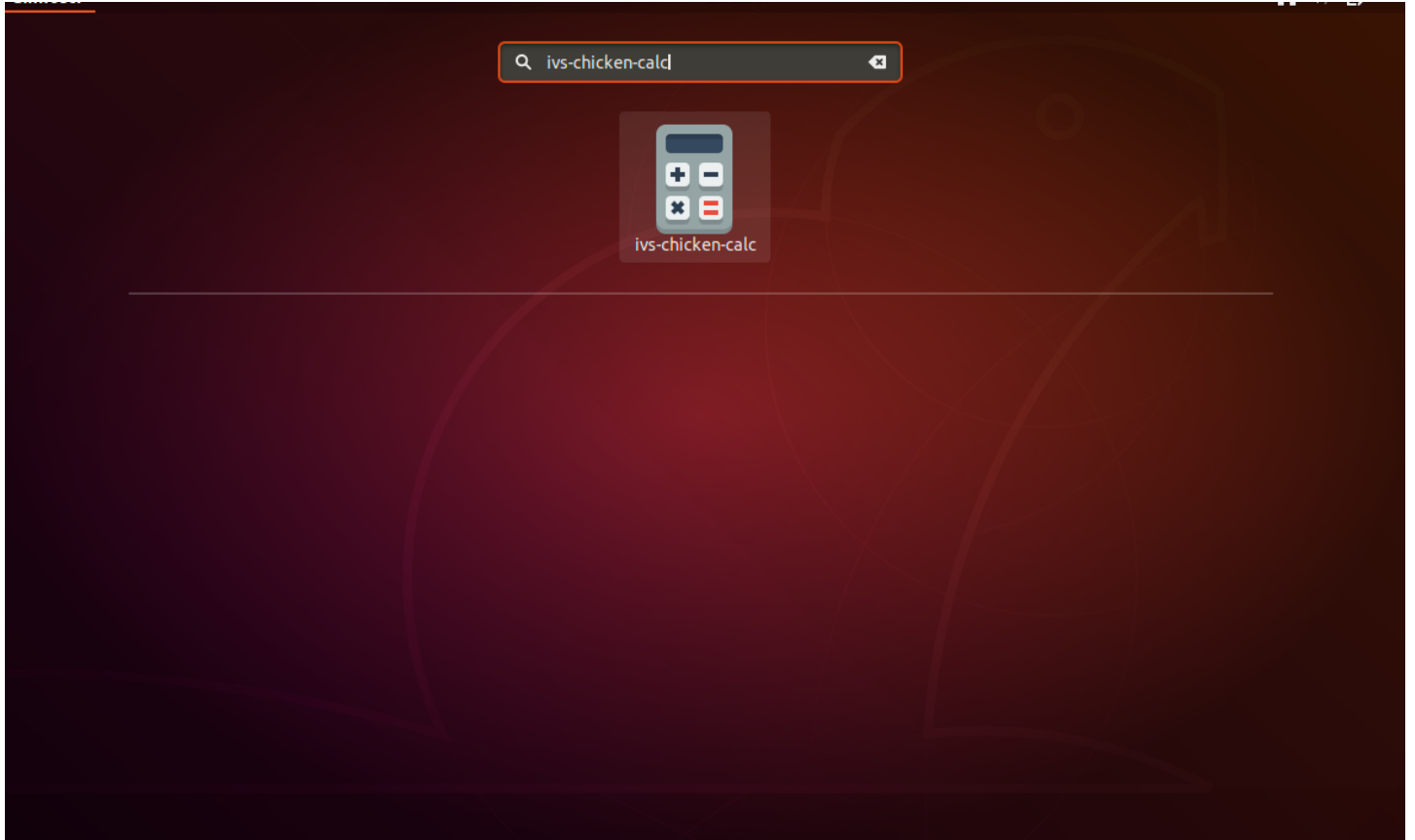

Figure 9: Click on ivs-chicken-icon

2.2 How to use application

You can input values into the calculator when you click on the numbers or on the function that you want to use, also you can input numbers and symbols directly from your keyboard. You can trigger only one action at the moment. Which means that usage format is following: "number " + "function" + "number", which will produce the result.

Figure 10: Ivs-chicken-calc app

2.3   Examples

Here you can find some common actions and their examples.

Operation	Symbol	Example
ADDITION	$+$	$1 + 2$
SUBTRACTION	$-$	$3 - 2$
MULTIPLICATION	$\times$	5×5
DIVISION	$\div$	$20 \div 4$
MODULO	$\%$	$4 \% 3$
SIGN	$\pm$	-4
FACTORIAL	n!	3!
PI	Π	3.14159
SINUS	sin	SIN(1)
COSINUS	cos	COS(0.2)
ACOS	acos	ACOS(0.67)
ASIN	asin	ASIN(0.5)
SQUARE	x^2	2^2
SQUARE ROOT	$\sqrt{x}$	$\sqrt{4}$
N-TH POWER	xˆn	2ˆ3
N-TH ROOT	$y\sqrt{x}$	$\sqrt{8}$