***Steps To Convert Python Kivy/KivyMD To Apk***

Windows users – From step 1

Linux/Mac Users – From Step 4

***Step-1*** :- Download VirtualBox (windows hosts)

https://www.virtualbox.org/wiki/Downloads

***Step-2*** :- Download Ubuntu desktop

https://ubuntu.com/#download

***Step-3*** :-

# Open VirtualBox

# Select "New" Option

# Give any name than click on "Next"

# Give memory size about 2048MB Click on "Next"

# Hard disk - Create a virtual hard disk row (Default)

# Hard disk file type - VDI(Default)

# Storage on physical hard disk - Dynamically allocated (Default)

# file location - Default

# size - Around 20GB and click on "Create"

# Start that

# Give path of Ubuntu.iso you downloaded and click on "Start”

# Hit “Capture" if pop comes

# Select "Install Ubuntu"

# Select your language (Default) and click "Continue"

# Update and other software - Normal installation (Default) and click "Continue"

# Installation type - Erase disk and install ubuntu (Default) and click "Continue"

# Again, click on "Continue"

# Time zone - Default and click "Continue"

# Write your name and password and remember it and click "Continue"

Now it may take couple of time......

# After complete installation it ask for restart just click on "Restart"

# Click on "Cancel" if window pop up

# Hit "Enter" and Login to your account

***Step-4*** :- Open "terminal" and just Write the commands given below

# To make sure that our versions are up-to-date, let’s update and upgrade the system with

$ sudo apt-get update

$ sudo apt-get -y upgrade

# To check the version of Python 3

$ python3 -V

Output must be similar to Python 3.5.2 or greater than 3.5 version

# To install pip (It will help you to install required packages further)

$ sudo apt-get install -y python3-pip

# To create virtual environments

$ sudo apt-get install -y python3-venv

$ mkdir environments

$ cd environments

$ python3 -m venv my\_env

# To activate the environment

$ source my\_env/bin/activate

Your prompt will now be prefixed with the name of your environment, in this case it is called my\_env.

# To install the buildozer

$ pip install --upgrade buildozer

# For Targeting Android

$ sudo apt install -y git zip unzip openjdk-8-jdk

$ sudo apt install -y autoconf libtool pkg-config zlib1g-dev libncurses5-dev libncursesw5-dev libtinfo5 cmake libffi-dev libssl-dev

$ pip install Cython

or

$ pip install --upgrade Cython

$ export PATH=$PATH:~/.local/bin/

***Step-5*** :- Upload Kivy file to environments folder

# For Linux/Mac users :- Just upload your kivy file to environments folder OR just go to your kivy folder using terminal

# *For Windows users* :-

1. If you are a programmer than you must have GitHub account , if not than please create it is very useful or necessary

2. Now, you have upload your kivy file to GitHub

3. After uploading, Open browser in virtual box and then open your GitHub account and just copy URL of your kivy file repository

4. Open "terminal" and make sure your current directory must be "environments" folder if not than type

$ cd environments

5. Uploading Kivy file to environments folder

$ git clone URL.git

Example :-

git clone https://github.com/Mufaddal5253110/Ping\_Pong\_kivy\_Game.git

***Step-6*** :- Go to kivy folder

$ cd filename

# Example :- cd Ping\_Pong\_kivy\_Game

***Step-7*** :- Initializing buildozer(make sure you are in your kivy folder)

$ buildozer init

# After running this command "buildozer.spec" is created in you kivy folder. To check run

$ ls

***Step-8*** :- The Most important step

Till I think there was no error, Now just listen my instructions carefully

-> Open "buildozer.spec"

-> go to (line 15-16) :- # (list) Source files to include (let empty to include all the files)

source.include\_exts = py,png,jpg,kv,atlas

# here add your file extensions which use in your program other than given. And don’t forgot to uncomment the code line

-> go to (line 36-37) :- # (list) Application requirements

comma separated e.g. requirements = sqlite3,kivy

requirements = python3,kivy

# Add modules which is required in your program other than given

e.g. kivymd,sqlite3 etc. And don’t forgot to uncomment the code line

# Above two steps are must be required to complete your conversion

# For more decorative you can change app icon, title, preplash,orientation,fullscreen or not, internet permission etc.

# For title

-> go to :- # (str) Title of your application

title = My Application

# In place of "My Application" just type your app name

# For icon and presplash

requirement: - 1. .png format

2. size :- 512x512

3. image must be in your kivy file which is in your environments folder

# (str) Presplash of the application

presplash.filename = %(source.dir)s/image1.png

# (str) Icon of the application

icon.filename = %(source.dir)s/image2.png

# In place of "image1" and "image2" write your image name

***Step-9*** :- Go back to terminal and ensure that current directory must be your kivy file and write the command given below

# Now Updating “buildozer.spec” file

$ sudo apt update

# Converting Kivy to apk

$ buildozer -v android debug

# This take most time to convert into apk for me around it take 45min

# After Converting it will create "bin" folder inside your kivy folder , inside this "bin" folder you can see your Apk file

THANK YOU