Python Tkinter – Cheat Sheet
Basic Level
https://engmrk.com

The most commonly used GUI programming toolkit for Python.

How to import?
>>> import tkinter or from tkinter import *

Application Main Window

How to instantiate main window of application?
>>> root = Tk ( )

Widgets

Import 'generic' widgets: >>> import tkinter
Import 'styled' widgets: >>> from tkinter import ttk

Widget (Interactive)	Purpose
Ttk.Button, tk.Button	Execute a command, function or task
Tk.Menu	Implements Top-level, pull-down and popup menus
Ttk.Menubutton	Display popup or pull-down menu when activated
Tk.OptionMenu	Creates a popup menu, and a button to display
Tk.Entry, ttk.Entry	Text entry (one line only)
Tk.Text	Text entry (multiple lines)
Tk.Checkbutton, ttk.Checkbutton	On-Off, True-False selection
Tk.Radiobutton, ttk.Radiobutton	One or Multiple selections
Tk.Listbox	Selection from a list of alternatives
Ttk.Combobox	Combined text field with a pop-down list
Tk.Scale, ttk.Scale	Moving slider for selecting numerical values

Note: Widgets with tk are generic whereas ttk are styled.

Widget (information)	Purpose
Tk.Label, ttk.Label	Display static text or image
Tk.Message	Display static multi line text
Ttk.Separator	Display a horizontal or vertical separator bar
Ttk.Progressbar	Show status of running operation
Ttk.Treeview	Display hierarchical collection of items

Widget (Grouping)	Purpose
Tk.Frame, ttk.Frame	Displays set of widgets as one unit
Ttk.LabelFrame	Frame but with border and title
Tk.PanedWindow	Group widgets in re-sizable panes
Ttk.Notebook	Tabbed set of frames, only one visible at a time

Common Properties:
background, foreground, width, height, borderwidth, text, font, cursor, activeforeground, activebackground, image.

Specific Properties:
1- Scale: from_ , to. orient, resolution.
2- Radiobutton: variable, value.
3- Spinbox: from_ , to, textvariable.
4-Button: command.
5- Checkbutton: onvalue, offvalue, variable.
6- Combobox: textvariable, values.
7- Progressbar: orient, mode, step.
8- Text: wrap, xscrollcommand, yscrollcommand.
9- Scrollbar: orient, command.

Create Widgets

>>> widget_name= ttk.Label (root, text = 'Example Text')

Set Widget Properties

>>> widget_name.config (text = 'Example Text')

Create Treeview

```
>>> treeview = ttk.Treeview ( root )
>>> treeview.pack ( )
>>> treeview.insert ( ' ', 'item1', text = 'First item')
>>> treeview.insert ( ' ', 'item2', text = 'Second item')
>>> treeview.cofig (height = 5, column = ('Version'))
>>> treeview.column ('Version', width = 50, anchor = CENTER)
```

Create Cascading Menu

```
>>> root.option_add ('*tearoff', False)
>>> menubar = Menu (root)
>>> root.config (menu = menubar)
>>> file = Menu (menubar)
>>> edit= Menu (menubar)
>>> help_ = Menu (menubar)
>>> menubar.add_cascade (menu = file, label = 'File')
>>> menubar.add_cascade (menu = edit, label = 'Edit')
>>> menubar.add_cascade (menu = help_, label = 'Help')
>>> file.add_command (label = 'New', command = lambda: print('New File')

>>> file.add_separator ()
>>> file.entryconfig ( 'New', accelerator = 'Ctrl + N')
```

File Dialog

```
>>> from tkinter import filedialog
>>> filename = filedialog.askopenfile ( )
```

Color Chooser

```
>>> from tkinter import colorchooser
>>> colorchooser.askcolor ( initialcolor = '#FFFFFF' )
```

Popup Message

```
>>> from tkinter import messagebox
>>> messagebox.showinfo( title  = 'Example', message = 'some text' )
```

Prepared by: Eng. Muhammad Rizwan Khan
Reference: https://docs.python.org/3/library/tkinter.ttk.html