LECTURE 38

GUIS WITH TKINTER 2

MCS 260 Fall 2020
Emily Dumas

REMINDERS

- Quiz 13 available

- TA office hours (open to all) replace discussions on Tue Nov 24. These use different zoom links—see announcement on course home page.

GOAL

Build a `tkinter` GUI application to encode text by rotating each letter forward in the alphabet by a fixed number of places.

SUBCLASSING TK

A good way to make GUI applications is to subclass `tkinter.Tk` and put GUI setup code in `__init__`.

Then, application data can be stored as class attributes.

Commands and other callbacks can be methods.

ROWSPAN AND COLUMNSPAN

These options for `.grid` of a widget make it span multiple columns or rows in the layout.

TKINTER VARIABLES

`tkinter` offers mutable variable classes designed to work with widgets:

- `tkinter.StringVar` — mutable string
- `tkinter.DoubleVar` — mutable float
- `tkinter.IntVar` — mutable integer

All use `.set(val)` to set, `.get()` to get. They automatically notify widgets that use them of changes.

VARIABLE CHANGE CALLBACKS

`tkinter` variables let us register a function to be called whenver the value changes:

`tkvar.trace_add("write",callback)`

The function `callback` is called with three arguments (internal name, internal index, operation). Usually you want to ignore all of these arguments.

WINDOW TITLE

`Tk.title(s)` sets the window title (in title bar).

REFERENCES

- Official tkinter documentation
- The Tk docs tutorial demonstrates lots of features, and shows Python code for all its examples.
- Unofficial reference manual by John Shipman

REVISION HISTORY

- 2020-11-19 Initial publication