

LECTURE 24: GUI PROGRAMMING EXAMPLES

GUI PROGRAMMING

- GUI: Graphical User Interface
- Type of interface that allows users to interact with computers using visual elements rather than text commands
 - Use windows, menus, buttons, text boxes, scrollbars
- Python uses a library called “Tkinter” to create GUI components
 - Alternatives? WxPython, PyQT, Kivy

PACK VS GRID VS PLACE

- Three techniques
 - pack (Order of pack() calls)
 - grid (Place on a hypothetical grid)
 - `gui-database.py` uses grid
 - place (Place on a specific x, y location)

CHANGING VISUAL PROPERTIES

- Actual set of properties depends on the element
- For label:
 - fg: Set foreground color
 - bg: Set background color
 - image: Display an image
 - underline: Put an underline below nth letter
 - justify
 - ...
- See [appearance.py](#)

ONE MORE EXAMPLE: GUI DATABASE

- See [gui-database.py](#)
- Use shelve as a persistent dictionary
 - import shelve
- We use radio buttons to choose between find/insert/delete

ONE STEP FURTHER: MESSAGE BOX

- `from tkinter import messagebox`
- Some variants:
 - `messagebox.showerror`
 - `messagebox.showinfo`
 - `messagebox.askquestion`
 -
- See `gui-database-messagebox.py`

GUI DATABASE WITH ADDITIONAL FEATURES

- Menu Integration
- Keyboard shortcuts
- See `gui-database-menu.py`

FIN!