Uživatelská rozhraní

3. cvičení

Praktická úloha

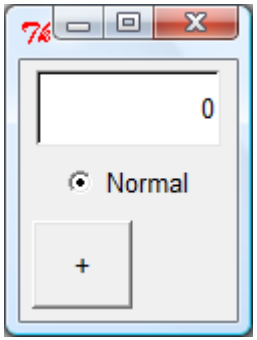
- Pro cvičení použijeme další šablonu, na které se budeme dále seznamovat s jazykem Python a grafickou knihovnou Tkinter.

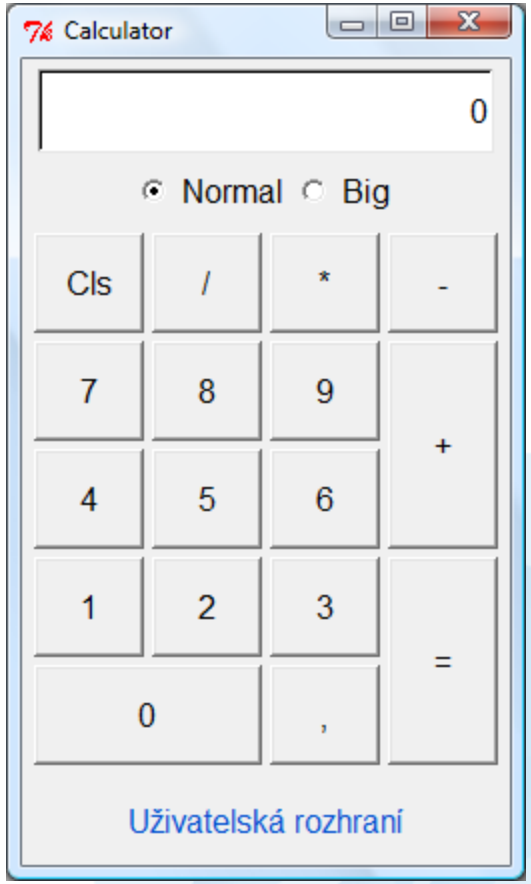
- Design si můžete upravit libovolně podle sebe. Pokuste se vyzkoušet základní prvky, včetně nastavení jejich vlastností.

- Vytvořte alespoň základní funkčnost

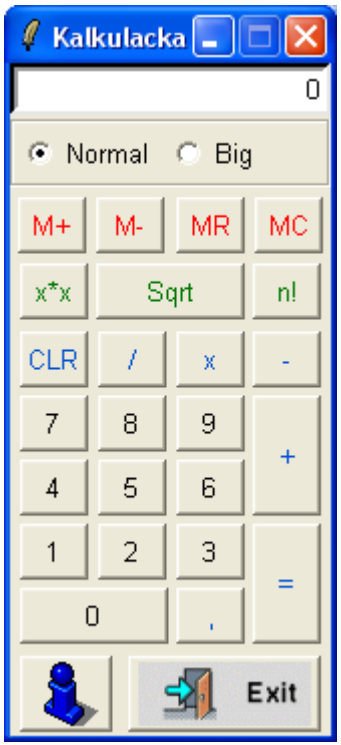
Kalkulačka

šablona: *sab_calculator.py*





Kalkulačka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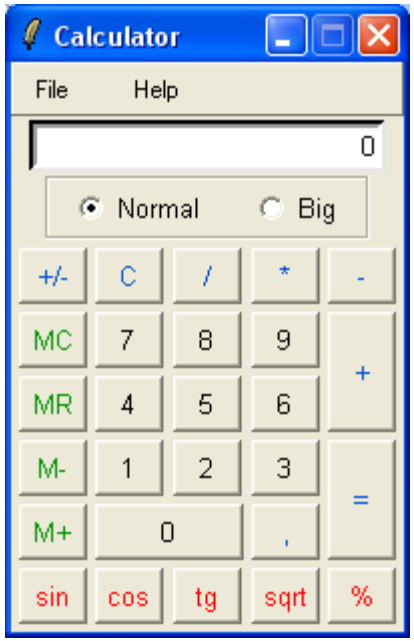
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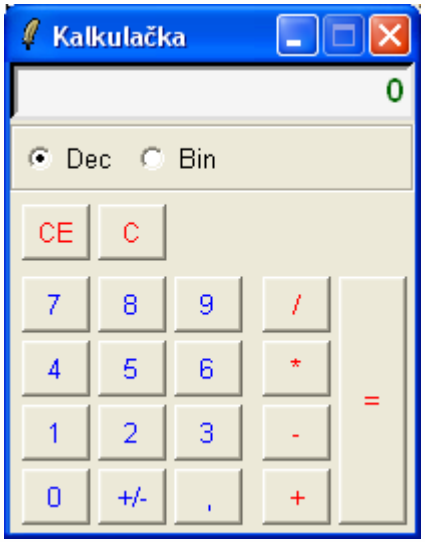
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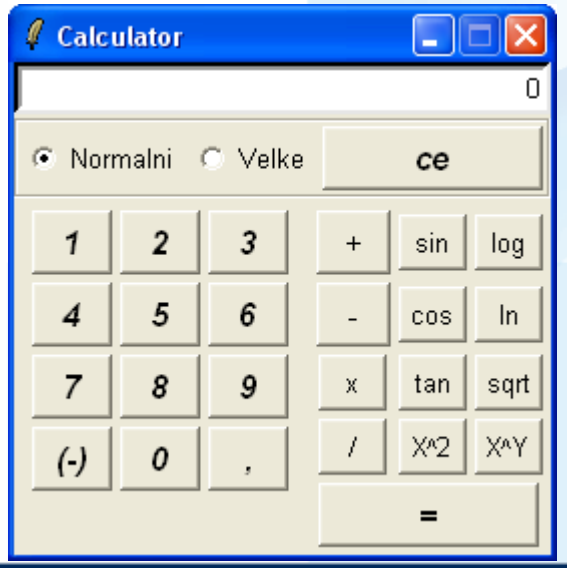
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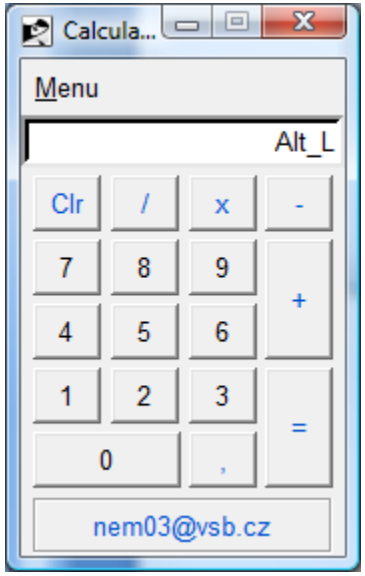
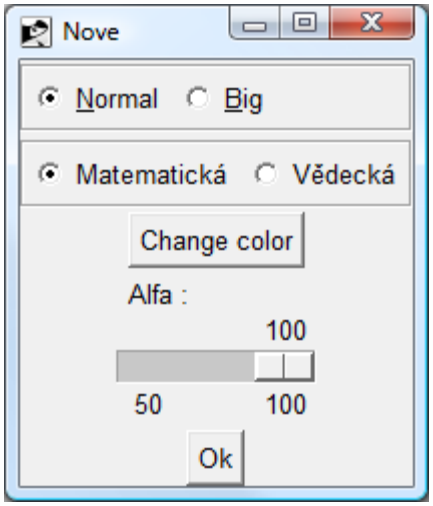
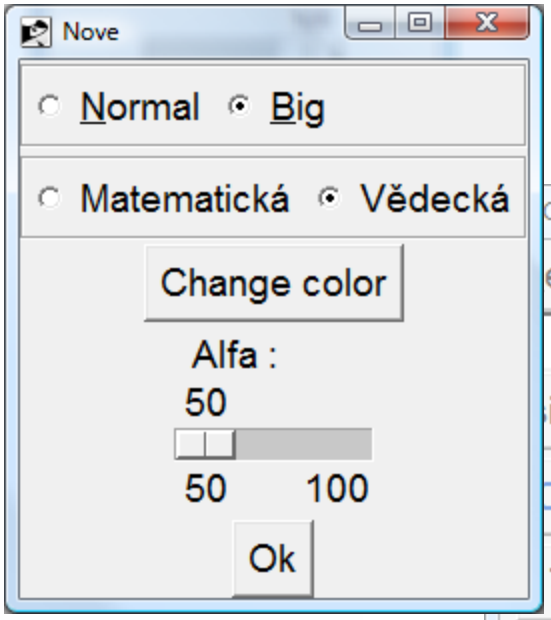
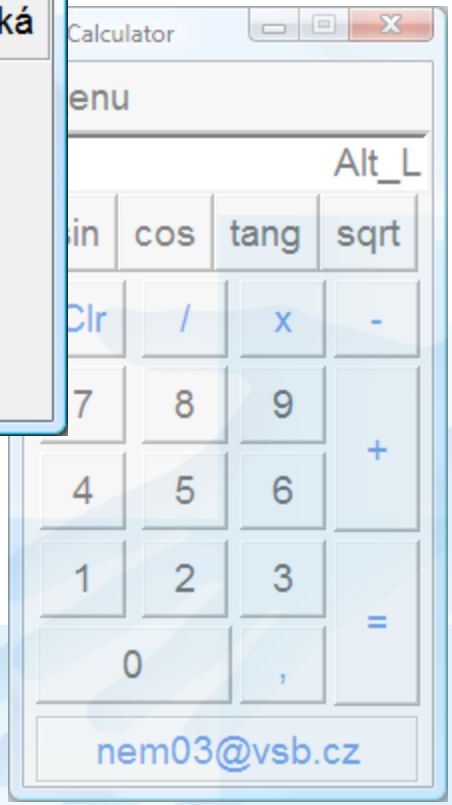
Klidně můžete experimentovat



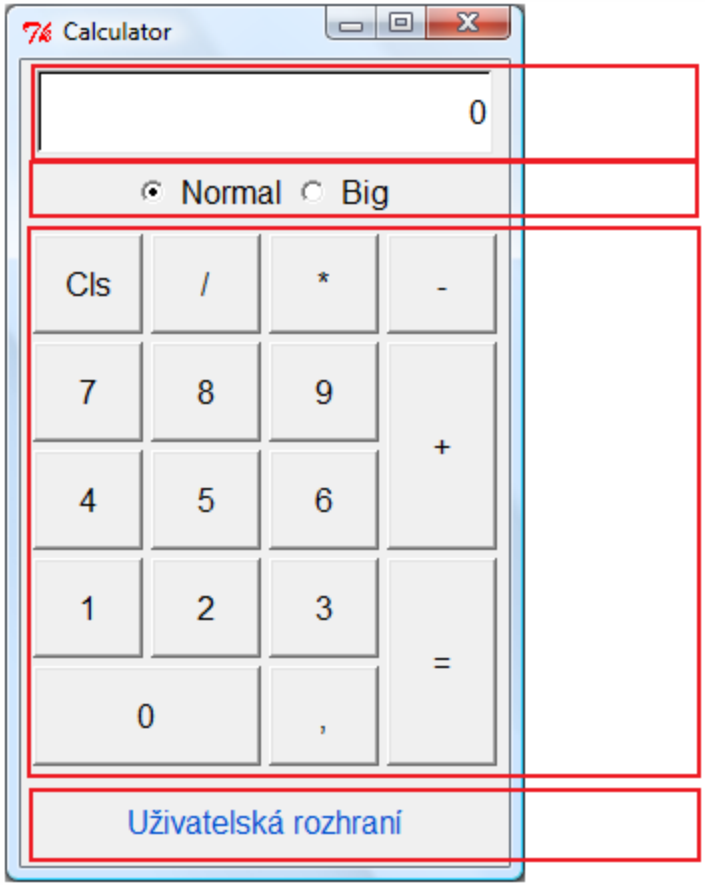






root.wm_attributes('-alpha', 0.7)

Chování GUI???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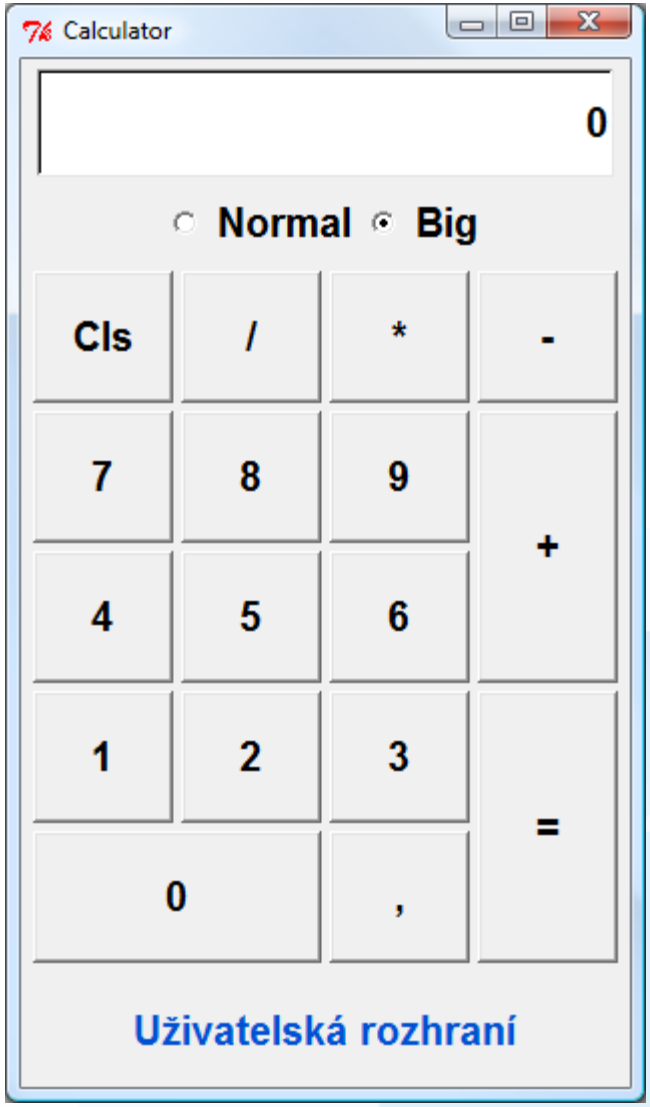
Uživatelská rozhraní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Uživatelská rozhraní

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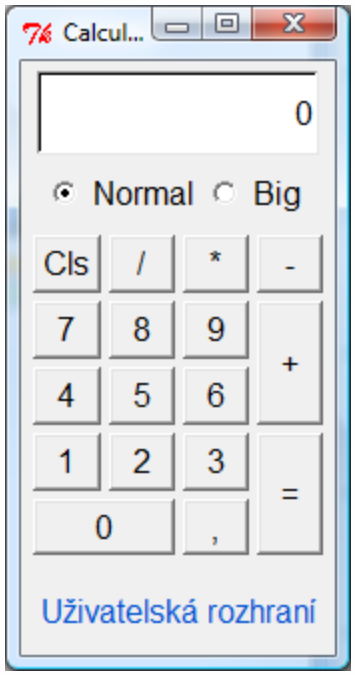
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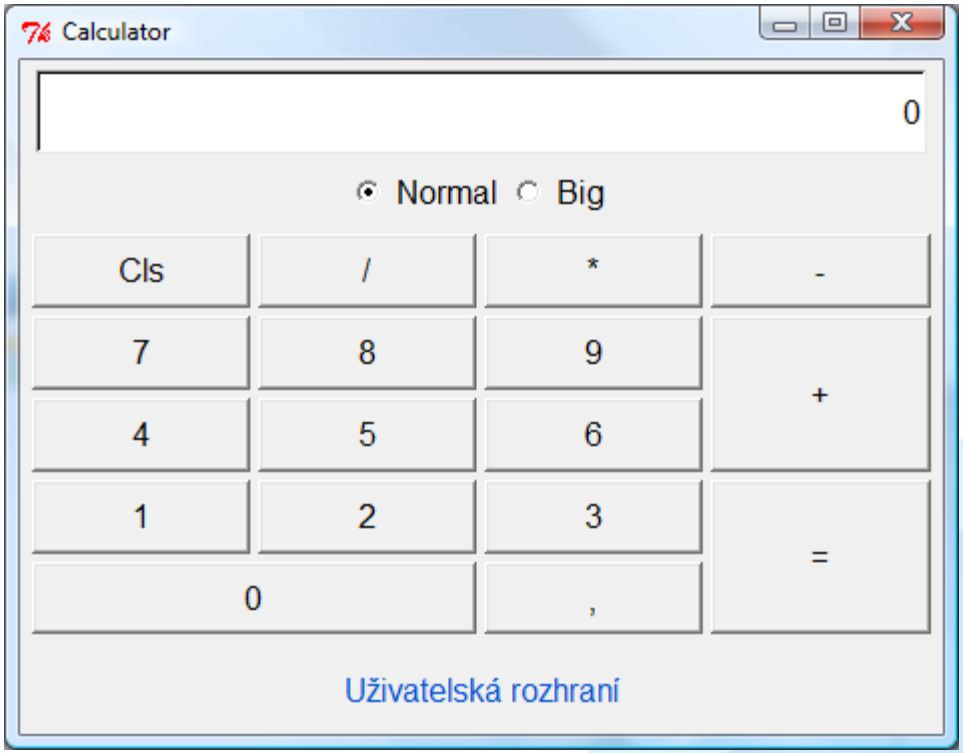
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Uživatelská rozhraní

Šablona sab_calculator.py

- Definice prvku a struktury rozhrani
- Formátování pomocí příkazů ***pack*** a ***grid***
- Funkční část a procedury

Nastavení fontu

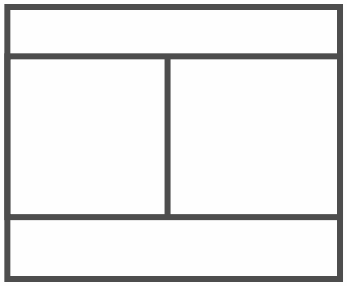
```
self.font = tkFont.Font(size=12, weight="normal")
self.label = Label(self.fb, text="Uživatelská rozhraní",
                   foreground="#0050d0", height=2, font=self.font)
```

Python 3.x

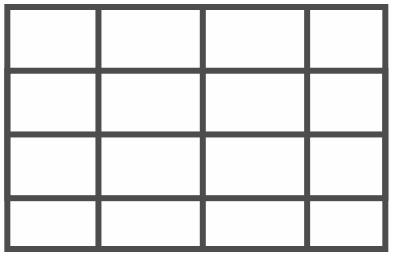
```
from tkinter.font import *
self.font = Font(size=12, weight="normal")
```

Geometry Management

pack(side=LEFT, fill=BOTH, expand=1, padx=4, pady=4)



grid(row=4, column=0, columnspan=2,sticky=W+E+N+S, padx=2, pady=2)



Grid

columnspan=2

rowspan=2

sticky=W+E+N+S

self.frame.rowconfigure(radek, weight = 1)

self.frame.columnconfigure(sloupec, weight = 1)

grid(row=3, column=3, rowspan=2,sticky=W+E+N+S, padx=2, pady=2)

Vlastní výpočet

```
self.btn = Button(…, command=callback(self.insKey, "+"))

self.btn.config(state=DISABLED) # Vypnutí použití tlačítka

# Vlastni vypocet

def insKey(self, znak):
        if znak == "+":
                …
         elif znak == "*" :
                …
```

Změna fontu

```
import tkFont

…

font = tkFont.Font(family="Times", size=12, weight="bold")
self.la=Label(root, font=font, text="sss")
self.la.pack()


#změna fontu
font.configure(size=30)

…
```

Math

```
from math import *
a="50"
b="10"
op="+"
c=eval(a+op+b)
print c
```

```
>>>
60
>>>
```

Dopracovat výpočet a vzhled.

Výsledek si libovolně rozšiřte

Děkuji za pozornost.