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Практическое занятие № 14

Тема: составление программ в функциональном стиле в IDE PyCharm Community.

Цель: закрепить усвоенные знания, понятия, алгоритмы, основные принципы составления программ, приобрести навыки составление программ в IDE PyCharm Community.

Постановка задачи:

В соответствии с номером варианта перейти по ссылке на прототип. Реализовать

его в IDE PyCharm Community с применением пакета tk. Получить интерфейс максимально

приближенный к оригиналу

https://i.pinimg.com/originals/73/c6/0d/73c60def8c55043f9fd27b370530a9cf.jpgТекст программы:

import tkinter as tk

from tkinter import ttk

def submit():

    print("Form Submitted")

def cancel():

    root.destroy()

# Создание главного окна

root = tk.Tk()

root.title("Sign Up")

# root.geometry("560x656")

root.resizable(width=False, height=False)

root.configure(bg='#e28406')

# Frame 1: Title

frame1 = tk.Frame(root, bg='#e28406', height=41)

frame1.grid(row=0, column=0, columnspan=2, sticky='ew')

label\_title = tk.Label(frame1, text="Sign Up", fg='#ebd216', bg='#e28406', font=('Arial', 16), anchor='w')

label\_title.pack(fill="both", padx=10, pady=10)

# Frame 2: Form Fields

frame2 = tk.Frame(root, bg='#242446')

frame2.grid(row=1, column=0, columnspan=2, padx=0, pady=0, sticky='nsew')

# First Name

label\_first\_name = tk.Label(frame2, text="First Name", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_first\_name.grid(row=0, column=0, padx=10, pady=5, sticky='e')

entry\_first\_name = tk.Entry(frame2, width=30, font=('Arial', 12))

entry\_first\_name.insert(0, "Enter First Name...")

entry\_first\_name.grid(row=0, column=1, padx=10, pady=10, sticky='w')

# Last Name

label\_last\_name = tk.Label(frame2, text="Last Name", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_last\_name.grid(row=1, column=0, padx=10, pady=5, sticky='e')

entry\_last\_name = tk.Entry(frame2, width=30, font=('Arial', 12))

entry\_last\_name.insert(0, "Enter Last Name...")

entry\_last\_name.grid(row=1, column=1, padx=10, pady=5, sticky='w')

# Screen Name

label\_screen\_name = tk.Label(frame2, text="Screen Name", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_screen\_name.grid(row=2, column=0, padx=10, pady=5, sticky='e')

entry\_screen\_name = tk.Entry(frame2, width=30, font=('Arial', 12))

entry\_screen\_name.insert(0, "Enter Screen Name...")

entry\_screen\_name.grid(row=2, column=1, padx=10, pady=5, sticky='w')

# Date of Birth

label\_dob = tk.Label(frame2, text="Date of Birth", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_dob.grid(row=3, column=0, padx=10, pady=5, sticky='e')

# Создание фрейма для выпадающих списков даты рождения

dob\_frame = tk.Frame(frame2, bg='#242446')

dob\_frame.grid(row=3, column=1, padx=10, pady=5, sticky='w')

months = ttk.Combobox(dob\_frame, values=["January", "February", "March", "April", "May", "June",

                                      "July", "August", "September", "October", "November", "December"], width=7)

months.current(4)

months.grid(row=0, column=0, padx=0, pady=5)

days = ttk.Combobox(dob\_frame, values=list(range(1, 32)), width=3)

days.current(4)

days.grid(row=0, column=1, padx=0, pady=5)

years = ttk.Combobox(dob\_frame, values=list(range(1900, 2024)), width=5)

years.current(85)

years.grid(row=0, column=2, padx=0, pady=5)

# Gender

label\_gender = tk.Label(frame2, text="Gender", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_gender.grid(row=4, column=0, padx=10, pady=5, sticky='e')

gender\_frame = tk.Frame(frame2, bg='#242446')

gender\_frame.grid(row=4, column=1, columnspan=3, padx=5, pady=5, sticky='w')

male\_rb = tk.Radiobutton(gender\_frame, text="Male", variable=tk.IntVar(), value=1, bg='#242446', fg='#e9e59b', font=('Arial', 12))

male\_rb.pack(side='left')

female\_rb = tk.Radiobutton(gender\_frame, text="Female", variable=tk.IntVar(), value=2, bg='#242446', fg='#e9e59b', font=('Arial', 12))

female\_rb.pack(side='left')

# Country

label\_country = tk.Label(frame2, text="Country", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_country.grid(row=5, column=0, padx=10, pady=5, sticky='e')

country = ttk.Combobox(frame2, values=["USA", "Canada", "UK", "Australia"], width=20)

country.current(0)

country.grid(row=5, column=1, columnspan=3, padx=10, pady=5, sticky='w')

# E-mail

label\_email = tk.Label(frame2, text="E-mail", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_email.grid(row=6, column=0, padx=10, pady=5, sticky='e')

entry\_email = tk.Entry(frame2, width=30, font=('Arial', 12))

entry\_email.insert(0, "Enter E-mail...")

entry\_email.grid(row=6, column=1, columnspan=3, padx=10, pady=5, sticky='w')

# Phone

label\_phone = tk.Label(frame2, text="Phone", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_phone.grid(row=7, column=0, padx=10, pady=5, sticky='e')

entry\_phone = tk.Entry(frame2, width=30, font=('Arial', 12))

entry\_phone.insert(0, "Enter Phone...")

entry\_phone.grid(row=7, column=1, columnspan=3, padx=10, pady=5, sticky='w')

# Password

label\_password = tk.Label(frame2, text="Password", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_password.grid(row=8, column=0, padx=10, pady=5, sticky='e')

entry\_password = tk.Entry(frame2, width=30, font=('Arial', 12), show="\*")

entry\_password.grid(row=8, column=1, columnspan=3, padx=10, pady=5, sticky='w')

# Confirm Password

label\_confirm\_password = tk.Label(frame2, text="Confirm Password", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_confirm\_password.grid(row=9, column=0, padx=10, pady=5, sticky='e')

entry\_confirm\_password = tk.Entry(frame2, width=30, font=('Arial', 12), show="\*")

entry\_confirm\_password.grid(row=9, column=1, columnspan=3, padx=10, pady=5, sticky='w')

# Agreement Checkbutton

# Creating a separate frame for the label and checkbutton

frame\_agree = tk.Frame(frame2, bg='#242446')

frame\_agree.grid(row=10, column=1, columnspan=4, padx=10, pady=5, sticky='e')

# Agreement Label

label\_agree = tk.Label(frame\_agree, text="I agree to the Terms of Use", bg='#242446', fg='#e9e59b', font=('Arial', 12))

label\_agree.grid(row=0, column=1, padx=10, pady=5, sticky='w')

# Agreement Checkbutton

agree\_var = tk.IntVar()

check\_agree = tk.Checkbutton(frame\_agree, variable=agree\_var, bg='#242446')

check\_agree.grid(row=0, column=0, padx=5, pady=5, sticky='w')

# Frame 3: Buttons

frame3 = tk.Frame(root, bg='#e28406')

frame3.grid(row=2, column=0, columnspan=2, sticky='ew')

cancel\_button = tk.Button(frame3, text="Cancel", command=cancel, fg="#ffffff", bg='#fc4c4c', font=('Arial', 14), width=10)

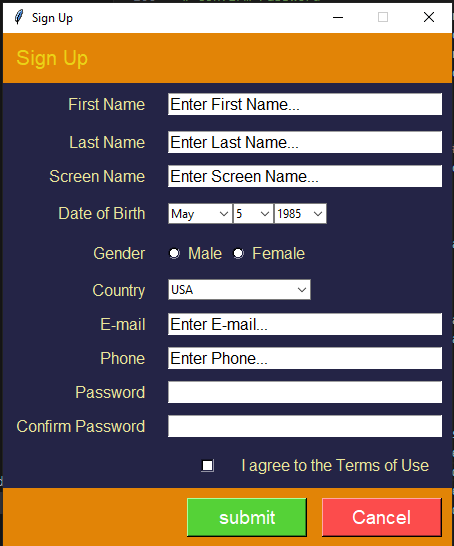
cancel\_button.pack(side='right', padx=10, pady=10)

submit\_button = tk.Button(frame3, text="submit", command=submit, fg="#ffffff", bg='#55d237', font=('Arial', 14), width=10)

submit\_button.pack(side='right', padx=5, pady=10)

root.mainloop()

Протокол работы программы:



Вывод: Я закрепил усвоенные знания, понятия, алгоритмы, основные принципы составления программ, приобрести навыки составление программ с использованием списковых включений, итераторов, генераторов в IDE PyCharm Community.

PyCharm Community.