Lembar Kerja Mahasiswa
Mata Kuliah Pengolahan Citra Digital Praktik (203311-20)
Program Studi Informatika
Fakultas Sains & Teknologi – Universitas Teknologi Yogyakarta

Identitas Mahasiswa

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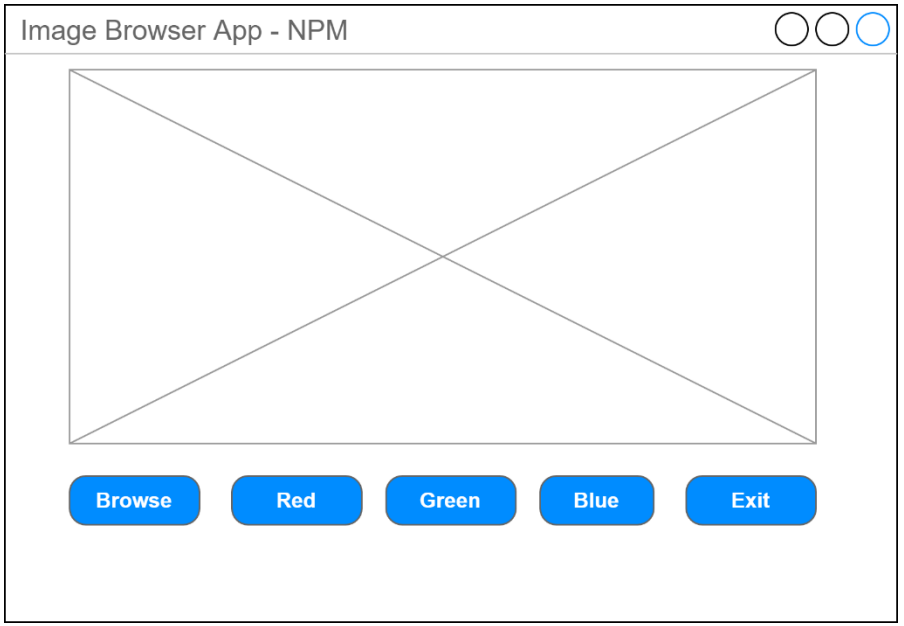
Soal 1.

Berdasarkan demo di kelas, tambahkan fitur pada aplikasi *image browser* sehingga aplikasi dapat menampilkan citra pada layer Red, layer Green, dan layer Blue melalui button seperti pada gambar di bawah!



Hasil Script

//tuliskan script python Anda di sini

```
from tkinter import *
from tkinter import filedialog
import os
```

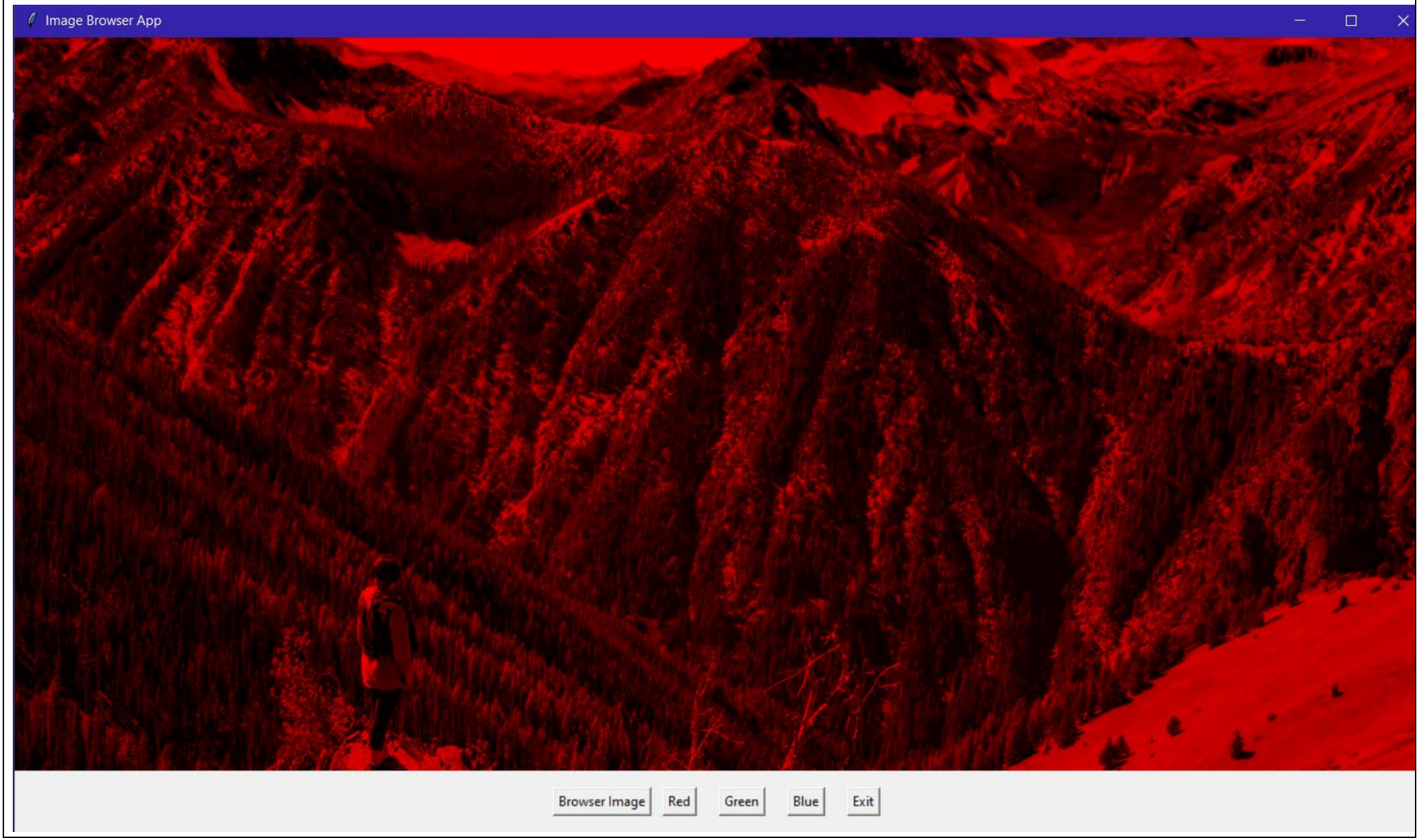
```
import tkinter as tk
from PIL import Image, ImageTk
import numpy as np
import cv2 as cv


fln = None

def showImage():
    global fln

    fln = filedialog.askopenfilename(initialdir=os.getcwd(), title="Select Image File",
                                     filetypes=(
                                         ("JPG File", "*.jpg"),
                                         ("PNG File", "*.png"),
                                         ("All Files", "*.*"))
                                     )
    print("Image path : ", fln)
    img = Image.open(fln)

    imgTk = ImageTk.PhotoImage(img)
    lbl.configure(image=imgTk)
    lbl.image = imgTk

def showRed():
    global fln

    img = Image.open(fln)

    for x in range(img.size[0]):
        for y in range(img.size[1]):
            r,g,b = img.getpixel((x,y))
            img.putpixel((x,y), (r, 0, 0))

    imgTk = ImageTk.PhotoImage(img)
    lbl.configure(image=imgTk)
    lbl.image = imgTk
```

```
def showGreen():
    global fln

    img = Image.open(fln)

    for x in range(img.size[0]):
        for y in range(img.size[1]):
            r,g,b = img.getpixel((x,y))
            img.putpixel((x,y), (0, g, 0))

    imgTk = ImageTk.PhotoImage(img)
    lbl.configure(image=imgTk)
    lbl.image = imgTk

def showBlue():
    global fln

    img = Image.open(fln)

    for x in range(img.size[0]):
        for y in range(img.size[1]):
            r,g,b = img.getpixel((x,y))
            img.putpixel((x,y), (0, 0, b))

    imgTk = ImageTk.PhotoImage(img)
    lbl.configure(image=imgTk)
    lbl.image = imgTk


if __name__ == '__main__':
    root = Tk()

    frm = Frame(root)
    frm.pack(side=BOTTOM, padx=15, pady=15)

    lbl = Label(root)
```

```
    lbl.pack()

    btn = Button(frm, text="Browser Image", command=showImage)
    btn.pack(side=tk.LEFT)

    btn2 = Button(frm, text="Red", command=showRed)
    btn2.pack(side=tk.LEFT, padx=10)

    btn2 = Button(frm, text="Green", command=showGreen)
    btn2.pack(side=tk.LEFT, padx=10)

    btn2 = Button(frm, text="Blue", command=showBlue)
    btn2.pack(side=tk.LEFT, padx=10)

    btn2 = Button(frm, text="Exit", command=lambda: exit())
    btn2.pack(side=tk.LEFT, padx=10)


    root.title("Image Browser App")
    root.geometry("1280x720")
    root.mainloop()
```

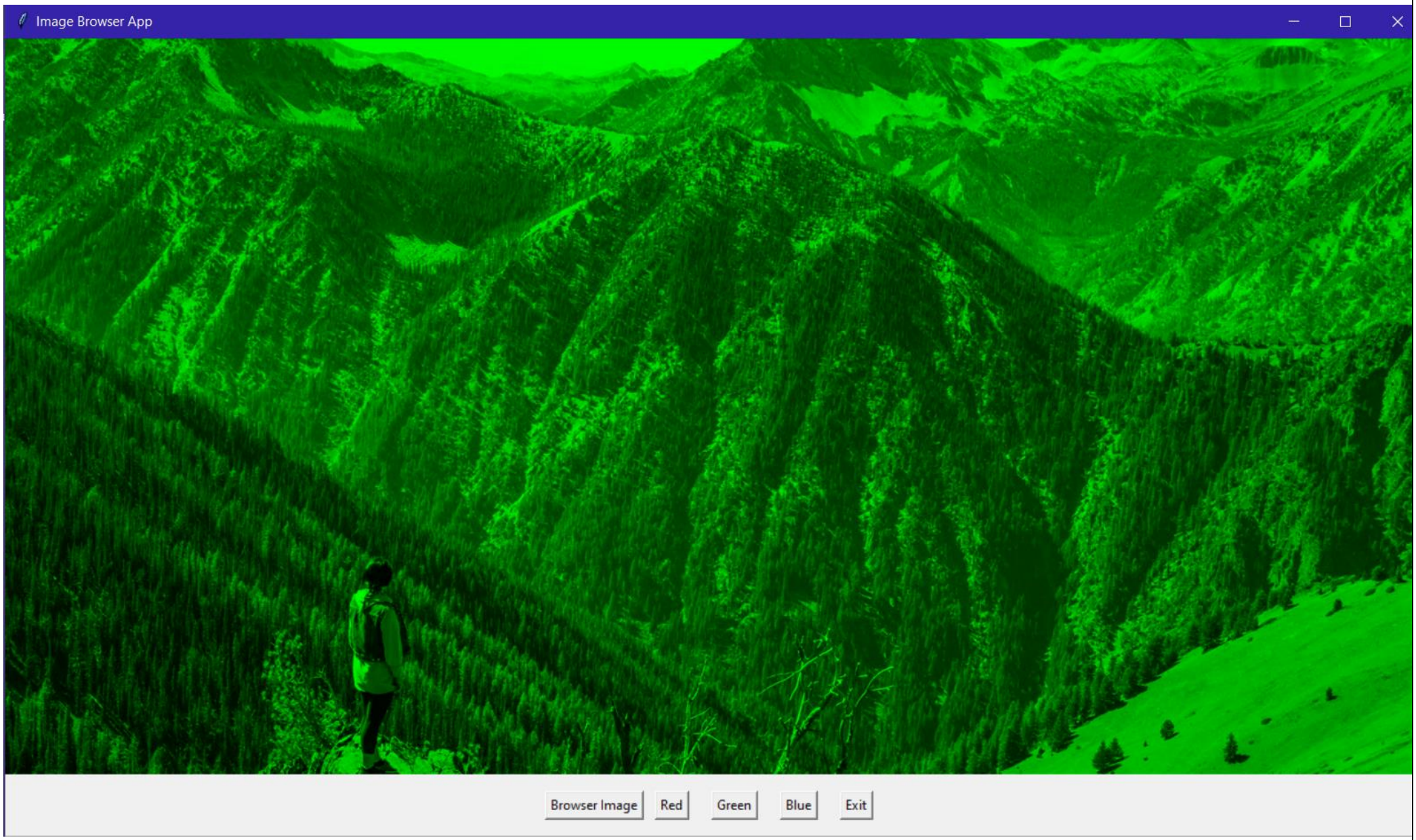
Hasil Running – setelah button Red di-klik

//paste-kan tampilan aplikasi Anda di sini



Hasil Running – setelah button Green di-klik

//paste-kan tampilan aplikasi Anda di sini



Hasil Running – setelah button Blue di-klik

//paste-kan tampilan aplikasi Anda di sini