

My Gallery App Report

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Programming (python)

Introduction

To make gallery application using python Tkinter I import various libraries such as, ttk, Image, ImageTk, MessageBox, Filedialog, Shutil and OS. By writing the following code I was expecting basic window for my App

```
# Basic Window for your app
myApp = Tk()
myApp.title("Image display App Made By Saugat Bhattarai")
myApp.geometry("1340x800")
myApp.resizable
myApp.configure(background='teal')
```

And for various buttons involved I wrote following code :

```
# Create a body frame to display images
bodyFrame = LabelFrame(myApp, text="My Friends - click a friend to see their friends", background="#dee8ea", fg="black" )
bodyFrame.grid(row=2, column=0, padx=10, pady=10, sticky=NW)

# Create buttons for various actions and add them to the main menu frame
buttonShowFriends = ttk.Button(mainMenu, text="Show Friends", command=showFriends )
buttonShowFriends.grid(row=0, column=0, ipadx=2, ipady=5, sticky=W)

buttonClearAll = ttk.Button(mainMenu, text="Clear All", command=clearAll )
buttonClearAll.grid(row=0, column=1, ipadx=2, ipady=5, sticky=W)

buttonDeleteFriends = ttk.Button(mainMenu, text="Delete Friends", command=delFriend )
buttonDeleteFriends.grid(row=0, column=2, ipadx=2, ipady=5, sticky=W)

buttonAddFriends = ttk.Button(mainMenu, text="Add Friends", command=addFriend)
buttonAddFriends.grid(row=0, column=3, ipadx=2, ipady=5, sticky=NW)

buttonQuit = ttk.Button(mainMenu, text="Quit", command=quitApp )
buttonQuit.grid(row=0, column=4, ipadx=2, ipady=5, sticky=NW)

buttonTheme = ttk.Button(mainMenu, text="Change Theme", command=change_to_dark_theme)
buttonTheme.grid(row=0, column=5, ipadx=2, ipady=5, sticky=NW)
```

From this all code I was expecting a window of myGalleryApp with buttons Such as

Show Friends

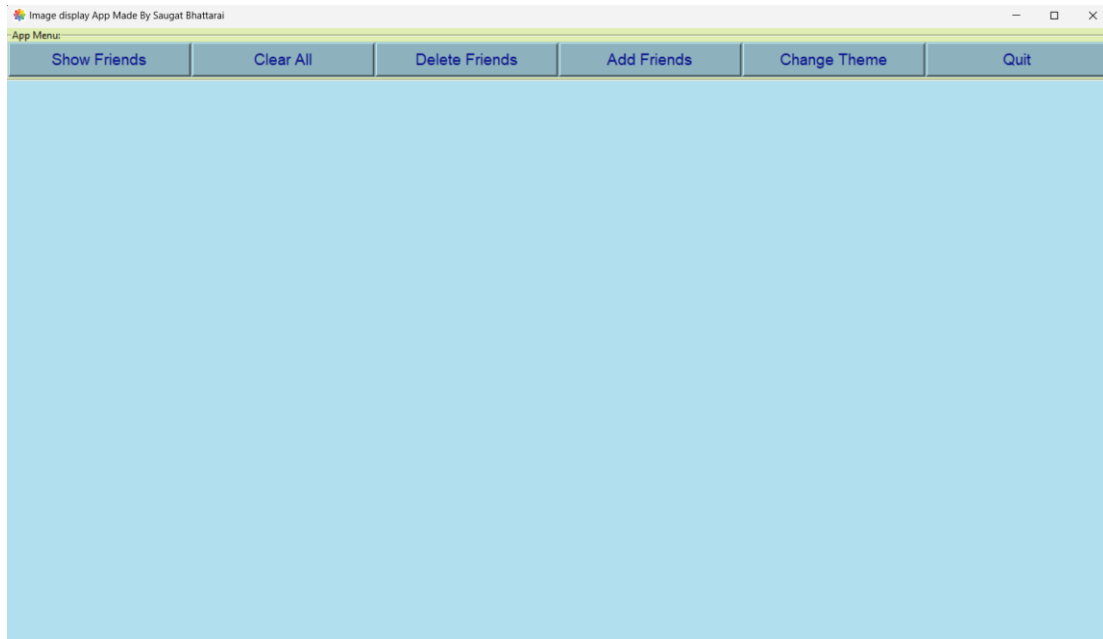
Clear All

Delete Friends

Add Friends

Change Theme and Quit

Window of application.



Function of Buttons

Show Friends Button

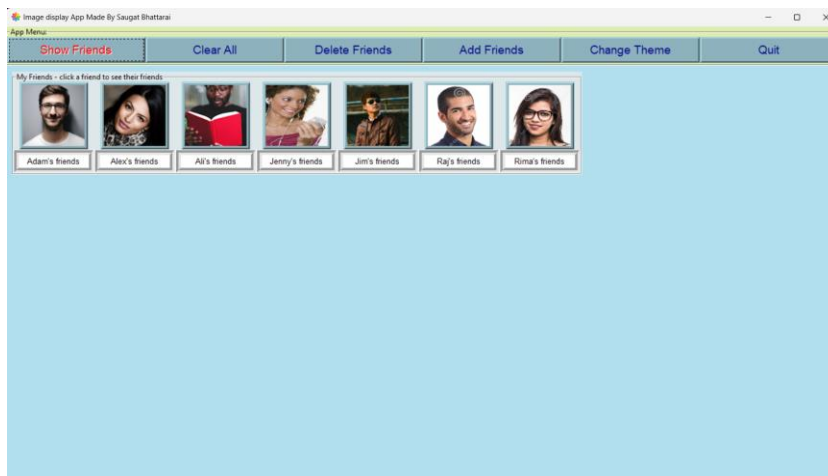
Expected output

Button 'Show Friends' – should display all friends images from a folder that has all the images of friends. The button will be active if no images are shown and disabled if the images are visible. Repeated press of the button should only render one set of these images and a pop-up informing user that the images are already displayed. The image displayed should show the image name i.e. friend's name and it must also be a button – referred to as 'friendButton'

Observed outcome

When the "Show Friends" button is pressed `showFriends()` function is called which coordinate the display of friends images with their names as a button. First, it disables the button to avoid repeated clicks, and then it activates other related buttons. The code first verifies that the picture path is a directory and that it exists before displaying each image along with the name of the corresponding buddy. Users may easily examine the photographs and names of their friends because it makes sure the body frame is displayed.

Test (Passed)



Clear All button

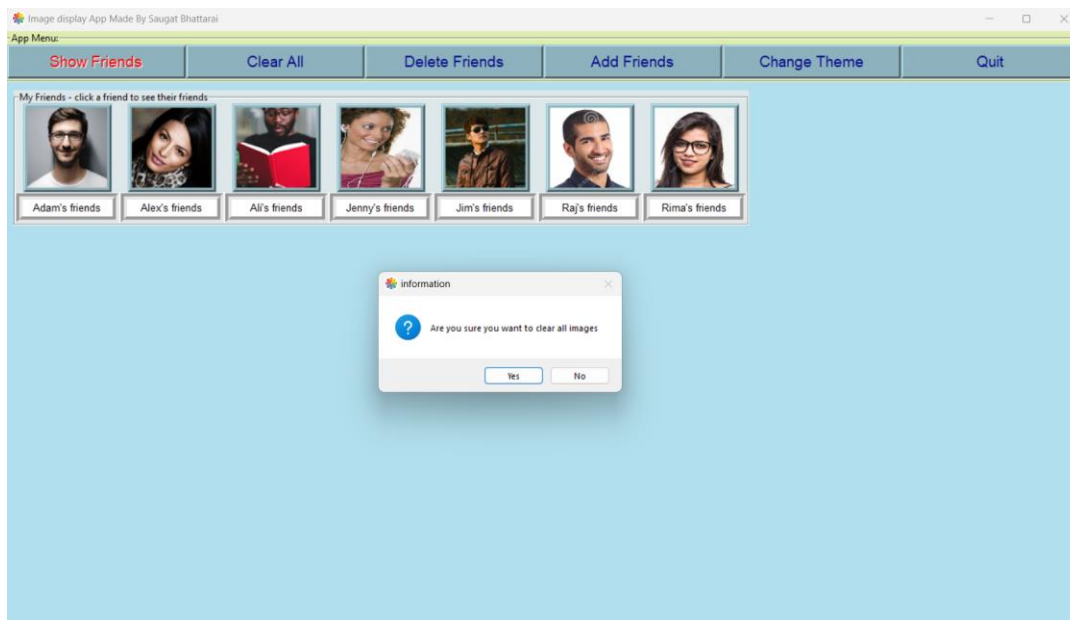
Expected output

Button 'Clear All' – should clear the gallery, if displayed and just show the main GUI window with a single frame that has the menu buttons. This button should only be active if the images are visible otherwise it will be disabled.

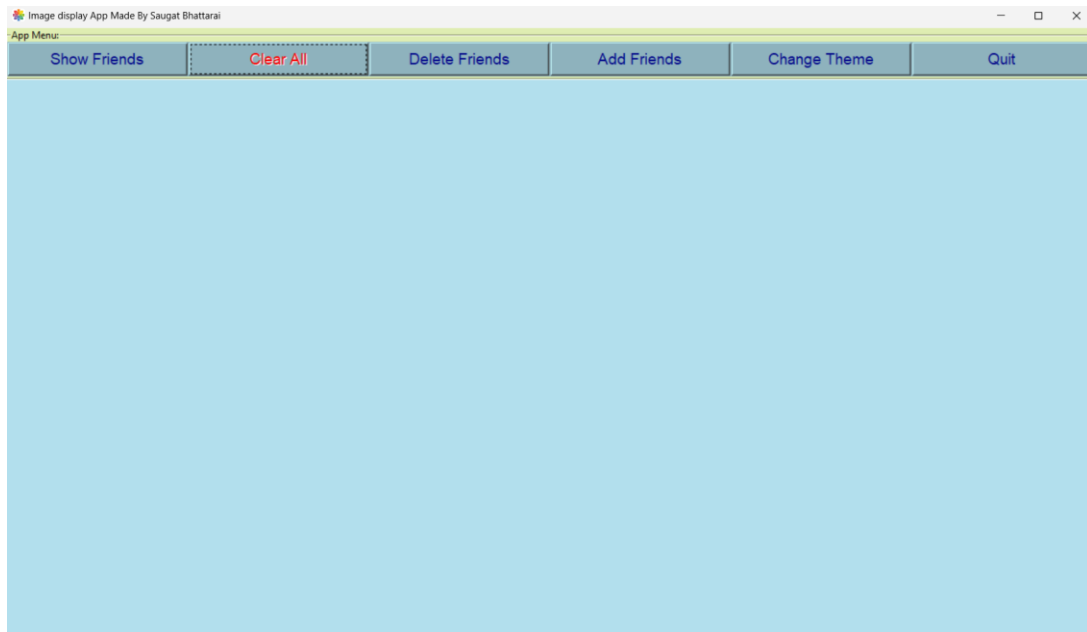
Observed outcome

All visible images in the application window are cleared when the "Clear All" button is pressed. This is accomplished by calling the `clearAll()` function. After asking if they're sure, it clears the screen by removing all of the widgets from the body frame. It also turns off the "Clear All" button so that nothing can be done until new photographs are added or the "Show Friends" button is pressed once again.

Test (Passed)



If we press yes, it clears the screen by removing all of the widgets from the body frame



Add Friends Button

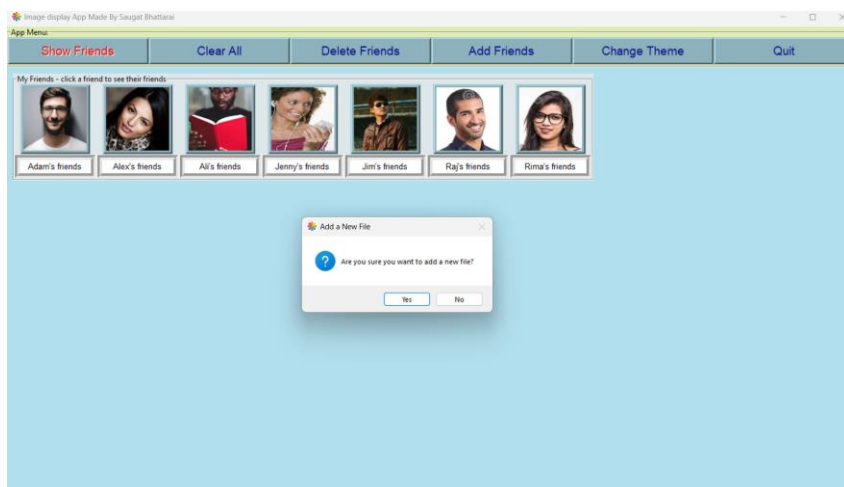
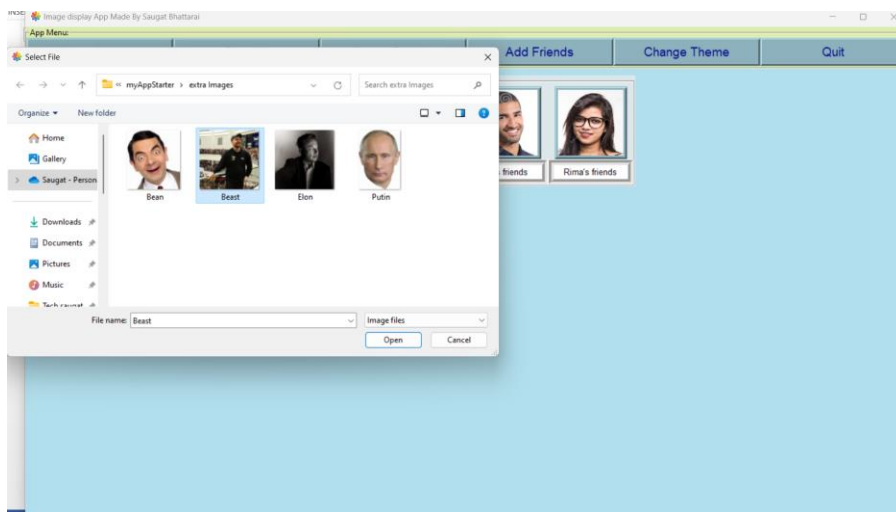
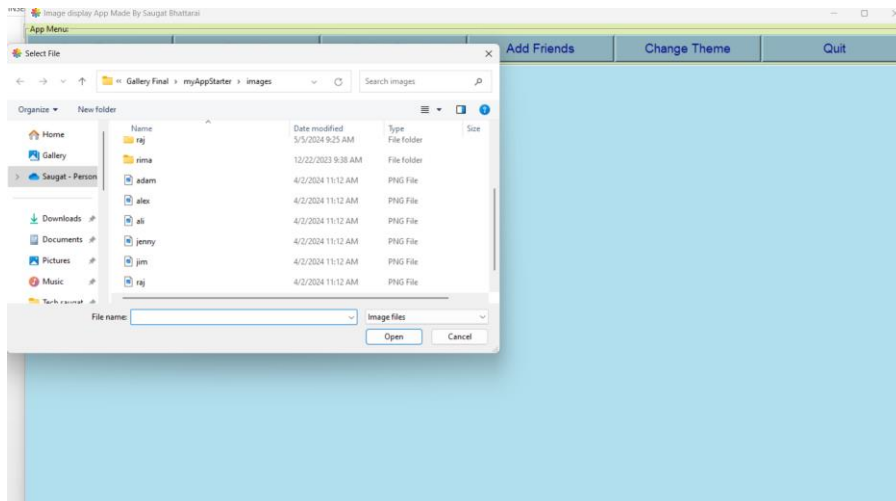
Expected output

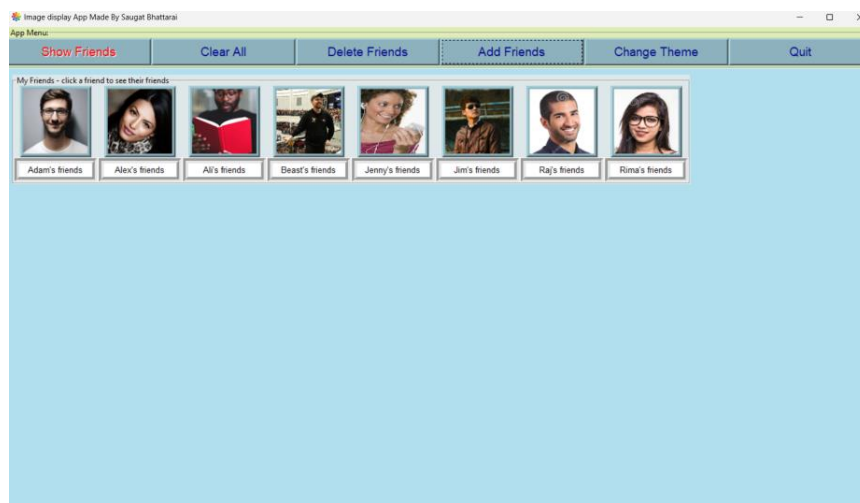
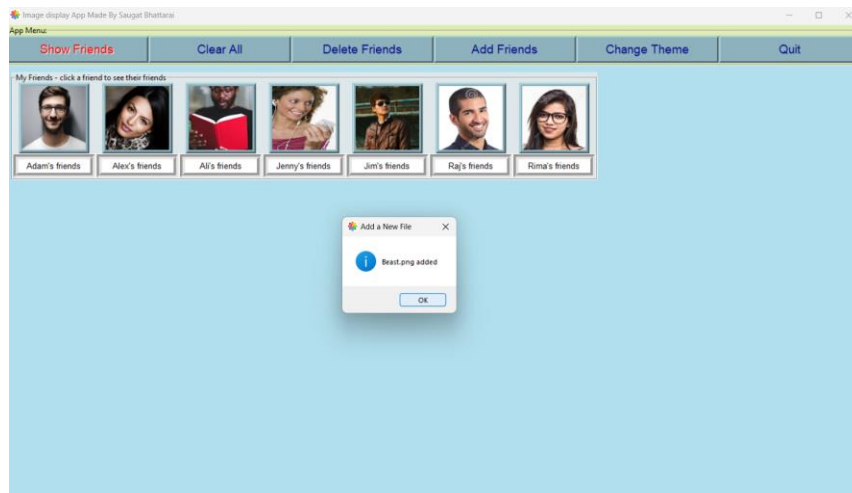
Button 'Clear All' – should clear the gallery, if displayed and just show the main GUI window with a single frame that has the menu buttons. This button should only be active if the images are visible otherwise it will be disabled.

Obtained outcome

When "Add Friends" button is clicked it calls the `addFriend()` function, which helps in the addition of new friends' images to the friends list. When it is clicked, it prompts the user to select an image file to add as a friend. After selecting a valid image file, it copies the file to the designated directory for friend's images. If the operation is successful, it notifies the user and updates the display to include the newly added friend's image.

Test (passed)





Delete Friends Button

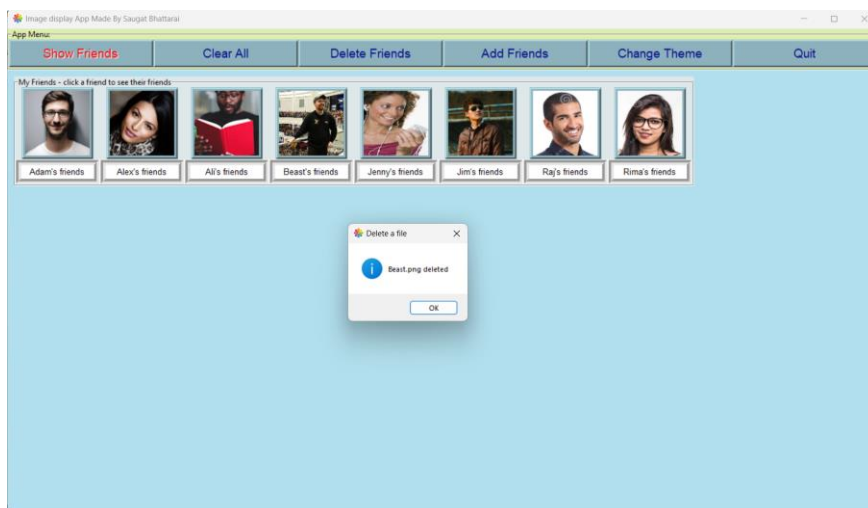
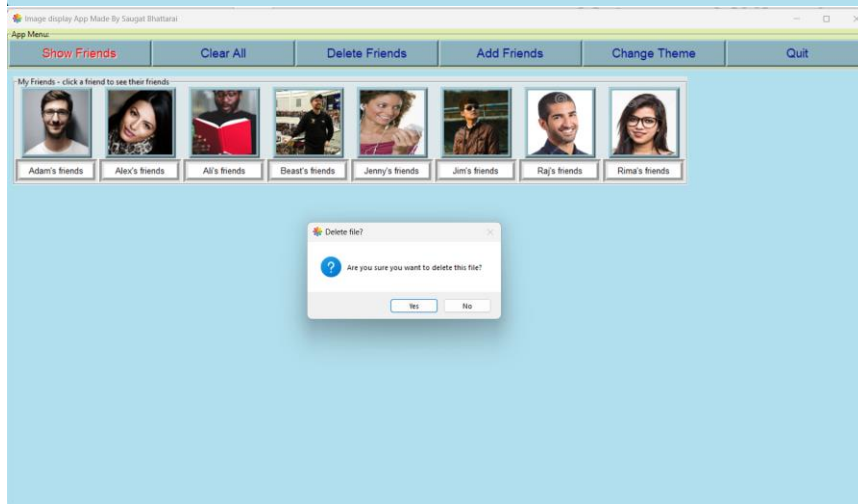
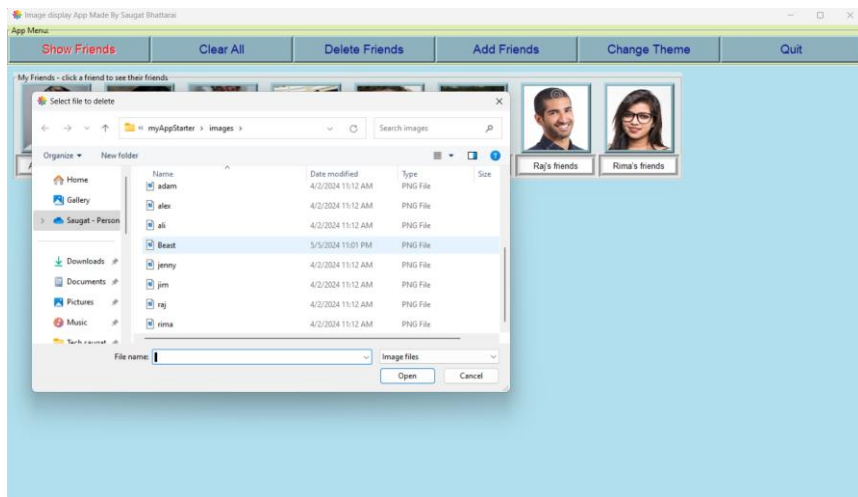
Expected Output

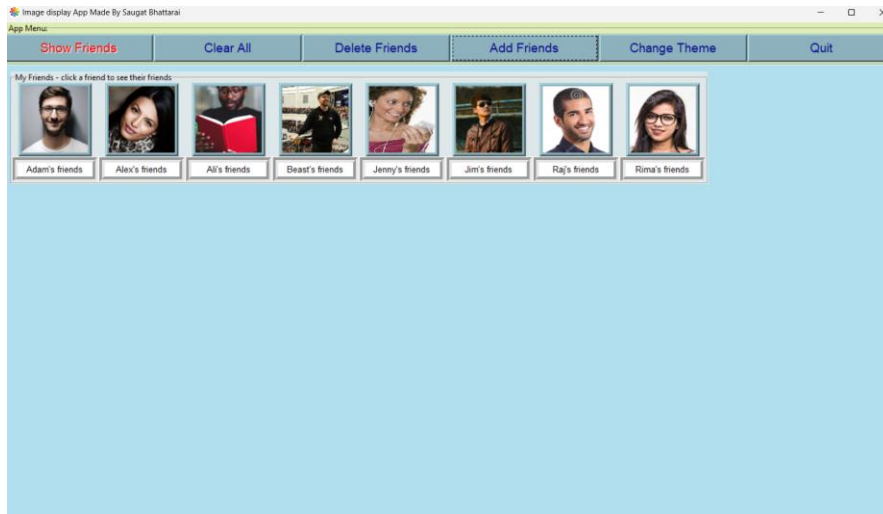
Button 'Delete a Friend' – should launch underlying operating system window showing the files in the relevant folder. The user will select the friend image to be deleted which will invoke a message window (popup) seeking confirmation of the deletion. The deletion will only be carried out if the user confirms it and the images will be redisplayed without the deleted one

Obtained outcome

When the "Delete Friend" button is clicked it triggers the `delFriend()` function which allow users to remove a friend's image. When it is clicked, it asks users to select the image file of the friend they want to delete. After selection and confirmation, the function deletes the chosen file from the directory. It then notifies users if the deletion is successful or prompts them to reconsider if they decide to cancel.

Test (passed)





Change theme button(enhanced feature)

One enhanced feature for this application is the "Change Theme" button, which allows users to alternate between various visual themes. Because it enables users to customize their experience according to their tastes and level of visual comfort, this functionality is significant. The program becomes more palatable and accessible to a wider audience with a range of aesthetic preferences by offering possibilities for theme customization. Furthermore, changing themes improves user satisfaction and engagement, making the application more pleasurable and easy to use. I made this effect by writing this code.

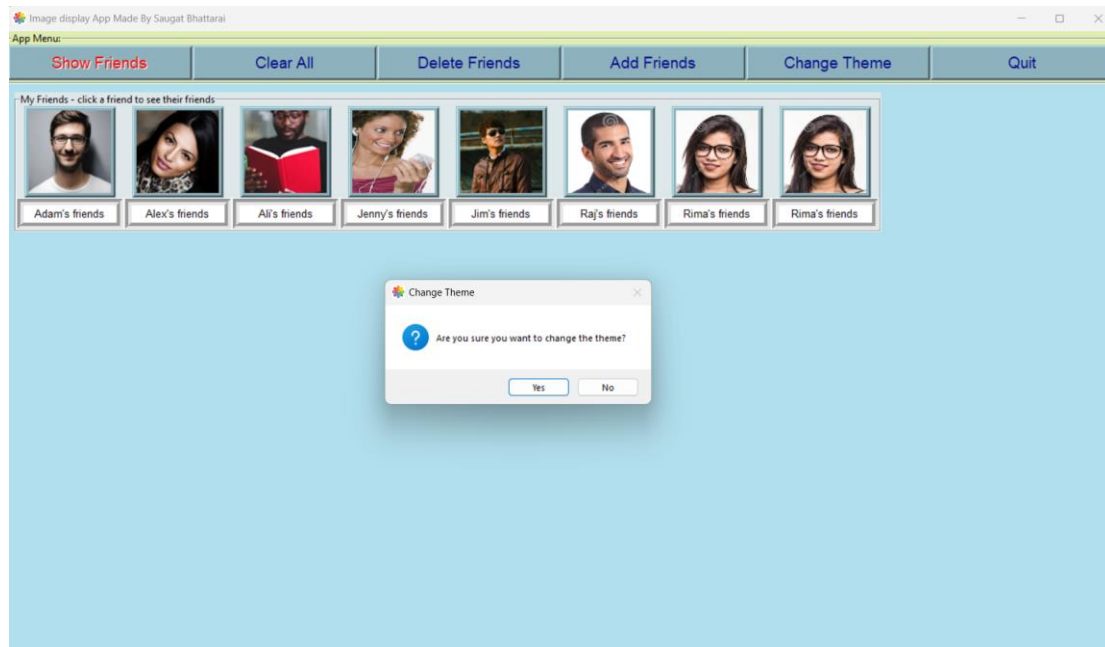
```
# Define the two themes
THEME1 = {
    'bg': '#b2dfed',
    'button_bg': 'blue',
    'button_fg': 'red'
}

THEME2 = {
    'bg': 'black',
    'button_bg': 'white',
    'button_fg': 'black'
}

# Set the initial theme
current_theme = THEME1

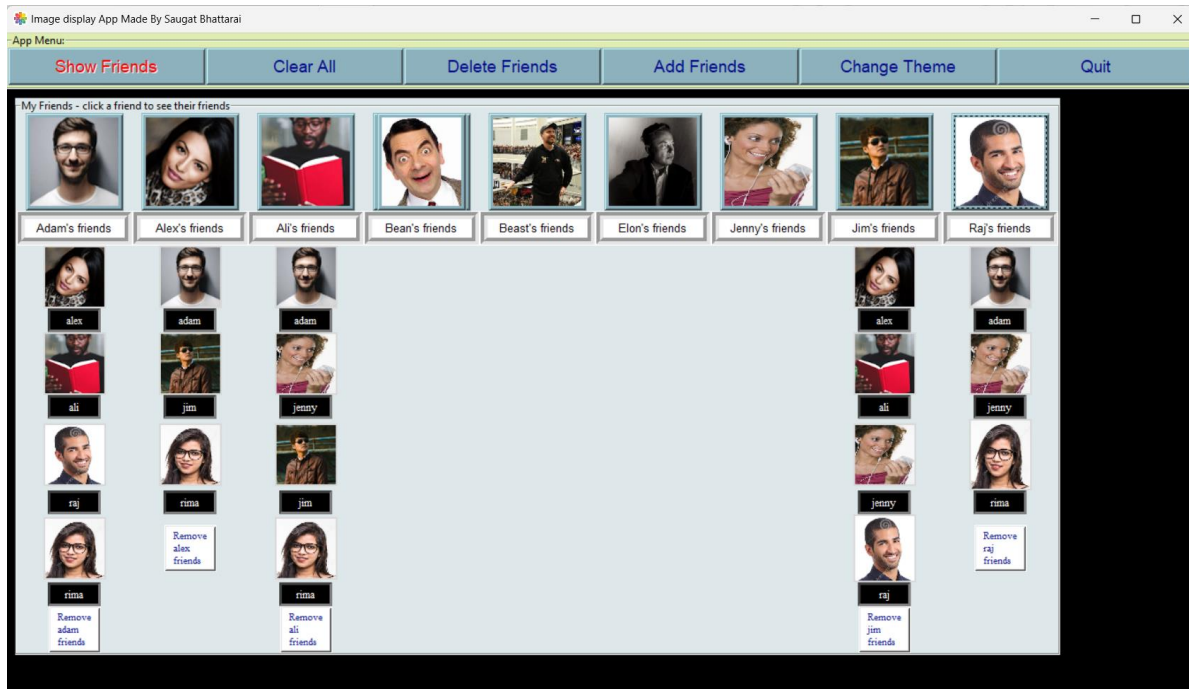
# Function to change to dark theme
def change_to_dark_theme():
    global current_theme
    # Ask for confirmation before changing theme
    check = messagebox.askyesno(title="Change Theme", message="Are you sure you want to change the theme?")
    if check:
        # Toggle the theme
        if current_theme == THEME1:
            current_theme = THEME2
        else:
            current_theme = THEME1
        # Update the main window and button colors based on the current theme
        myApp.configure(bg=current_theme['bg'])
        Button.configure(bg=current_theme['button_bg'], fg=current_theme['button_fg'])
```

When we click on change theme button:

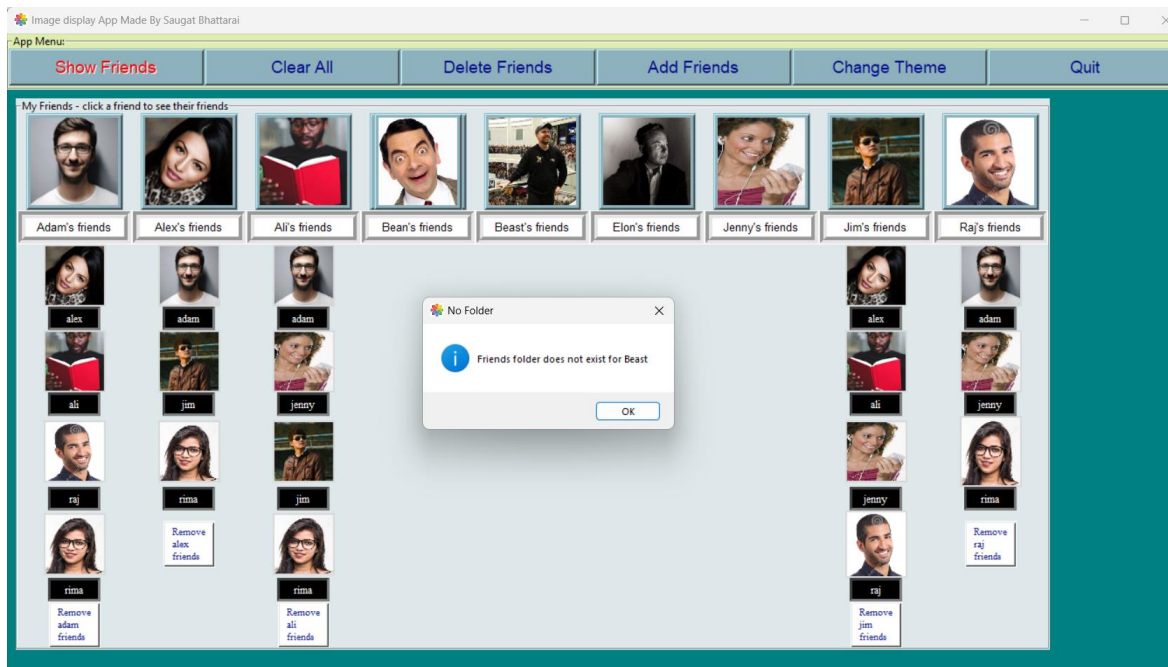


Friend's button

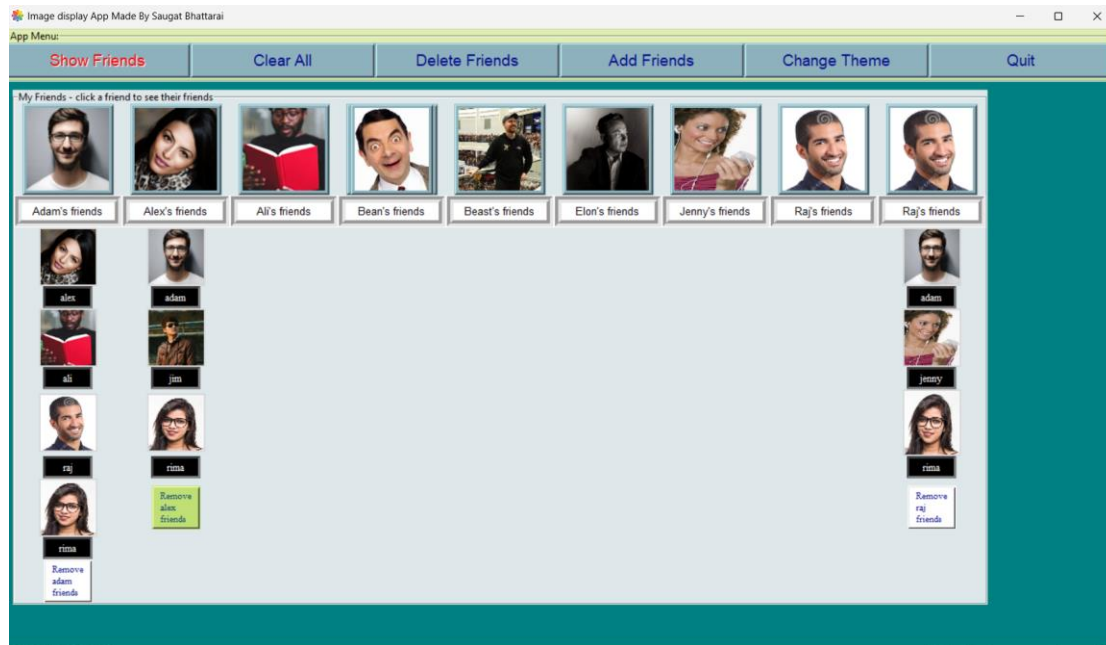
When we click friends button it will display the friends of friends if it is available in folder.



If the folder of friends of friend does not available it will pop up information “ Friends folder does not exist”.



Below every friend of friend there is a remove friend button when we pressed it it will close or remove the friends of friend label.



Quit Button

Expected outputs

should quit the application after user confirms it via a popup

Obtained output

After clicking quit button it will pop up dialogbox where it will ask weather we want to quit it or not if we click on Yes it will destroy whole application.

Test(Passed)

