Module: Technological Basics II

Mayor: Digital Media

Report: The Art Friend MVP

Tech Basics II - Stream A

Date: 15.09.2024

Author: Jana Weber

Table of contents

1 Introduction

Considering the size of different social media platforms, it can often be difficult to find like-minded artistic people online and to create friendships this way. When using a normal social media site, there are people with very different goals and the algorithms tend to favour bigger creators, who are too difficult to get in touch with or who are not interested in that type of thing. There are some art groups on social media. However, to join one of them, you already need to have connections or know where to look. Additionally, from personal experience, they tend to become inactive after being used for a while and without creating connections with individual people, the contact tends to fall off completely.

This is where *Art Friend* comes in. It combines elements from social media platforms with those from dating apps. Here people can find artists who are also willing to and actively want to meet new people and make more friends. Having art friends can be helpful for small artists, as it can increase their following and they can give each other advice. Furthermore, the support by someone else can be a motivation to improve and to keep creating. Through *Art Friend* it is easy to find new people and become mutuals, which is a term used on social media that refers to people who follow each other and potentially form a friendship.

2 Methodology

The creation of the MVP was focused on creating the basic features of *Art Friend* one at a time. Focusing closely on a single feature allowed for a lot of testing to create a rounded user experience. At first, the features were constructed on a basic level to ensure that they functioned as intended. Afterwards, further details could be added to the MVP.

Development started with the simple login page. It was supposed to work on a basic level to allow for a personalised user flow. This was important for the app, as it strongly depends on the feature of adding friends.

Afterwards, a basic homepage was created with the feature to generate new profiles and the possibility to add friends or to dislike profiles, which leads to the profile being ignored in the future. Fetching the correct information from the database was challenging at first, however, after checking the information from the lecture about pandas and playing around with it for a bit, the code that was needed became very clear. Another problem on this page was the list of profiles that could be shown to the user. At first, the code would go through each profile in the list of overall users and remove the ones the user was already friends with, which would lead to half of the list not being checked and therefore not every friend being removed. After some research online, it became clear that the problem was that while the for loop was going through the overall users and removing the friends, the list it was removing items from got shorter. This led to the loop stopping halfway though the list. The solution from the forum was to add the desired items to a separate list instead of removing the undesired ones from the original list.

The page that was developed next was the friends page, which allows the user to click on the different profiles they have liked and look at their information. For simplicity and consistency throughout the MVP the profiles are displayed in the same layout as on the homepage. Here there was an issue when creating the buttons for the friends' profiles. Initially the friend's page would always display the friend, whose button was created last, as the app would not pick up on the button that was pressed on but would rather use the value that was last defined, which is always the friend that was placed last. This problem could be fixed with some online research.

The last page to be developed was the chat page. Devolving that page was relatively straight forward, however, the error message when typing in a wrong name did not work at first. After looking over the code, the problem was found and resolved quickly.

3 Design

After the features were tested and working, most of the design was implemented, mainly the logo on the starting page, some widget placements, and the sectioning of the page buttons on the bottom of the GUI.

In the bottom of the report some Screenshots of the MVP are added in case some of the design appears differently on different systems. The app was created on a Windows Laptop and thus might look different on a Mac machine.

The colour scheme of the MVP was inspired by the first prototype that was developed in Tech Basics I. As an homage to the first version the colours were chosen based on the colour scheme of the previous logo. To create a more advanced design, that is more specific to the app, a new logo was created, that includes the name of the app and expresses the artistic side of it.

Additionally, the design was kept quite simple and clean, as not to overcomplicate the MVP and to ensure a simple user flow. There is a plain background colour, and the pages are simply sectioned with a white image to create a sort of border for the page buttons. This simple design also allows for the art that is being displayed to be the focus and not to clash with the app itself.

4 Limitations

One thing that the MVP is missing is a way to filter the profiles that could be shown to the user. For simplicity and out of time reasons, this was left out. However, in a possible final version of the app, users might be able to describe their art style with some simple tags, like traditional art, digital art, coloured pencils, alcohol markers, etc. Then the user could choose what types of artists they wanted to see. Additionally, to the reasons of time and simplicity, however, this would just further reduce the number of profiles that could be shown, since there are already not that many profiles in the MVP.

Another feature that could not be realized further is a chat room. The ability to chat with your friends is one of the core features of a social media app. However, that is too advanced to be developed using the knowledge and tools from the Tech Basics module. Furthermore, it is not necessary to bring across the idea of the app. Even the final app could work without an actual chat room, as the user could just look up their friends on the other social media platforms that they have included in their profiles.

One more limitation is the missing ability to register a new account. As of now, new accounts can only be created by editing the files in the data folder. This would have to be implemented into the app in the future, however, it was not necessary for a simple MVP that conveys the idea behind *Art Friend*.

Code resources

To get rid of the borders around the images that are placed in the GUI, the attribute "borderwidth" was used. This is used in the helpers file in lines 21 and 38. The source is Stackoverflow.

(https://stackoverflow.com/questions/31360480/tkinter-label-image-without-border)

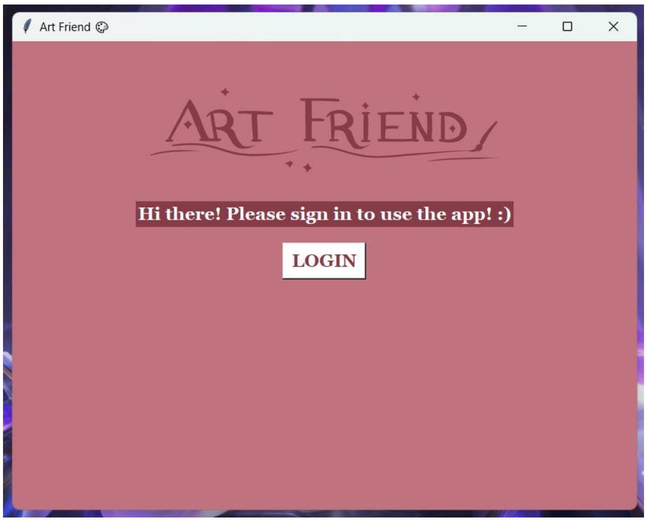
Stackoverflow was also used while working on the problem of the for loop not going through the entire list, that was mentioned in the Methodology chapter while talking about the homepage. The general concept of adding to a separate list, rather than removing from the initial list, was used in the "randomize_profile" function, in the app.py file from lines 196 – 202.

(https://stackoverflow.com/questions/54819365/python-for-loop-stops-working-in-the-middle)

The problem that was mentioned in the friends page part of the Methodology chapter was also solved through Stackoverflow. This code can be found in the "define_friend(friend)" and "display_friends()" functions, in the app.py file from line 257 – 274.

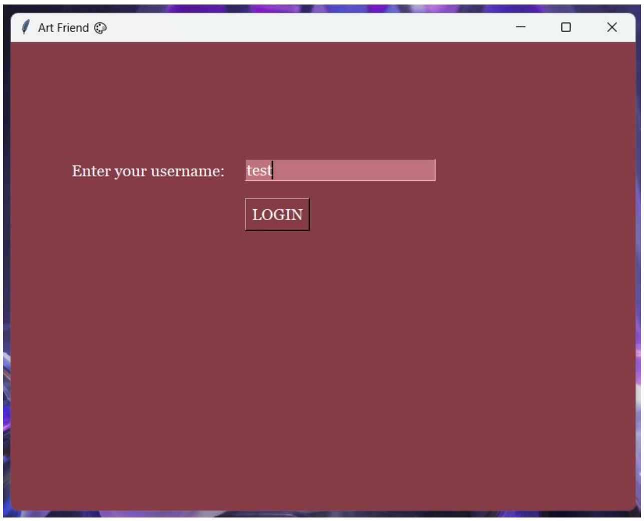
(https://stackoverflow.com/questions/10865116/tkinter-creating-buttons-in-for-loop-passing-command-arguments)

Screenshots of the GUI



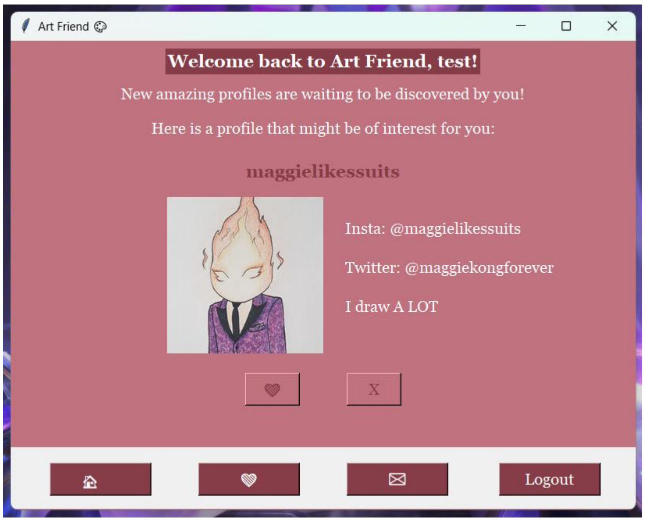
Hi there! Please sign in to use the app! :)

Figure 1 Start Page



Enter your username: test

Figure 2 Login Page



Welcome back to Art Friend, test!

New amazing profiles are waiting to be discovered by you!

Here is a profile that might be of interest for you:

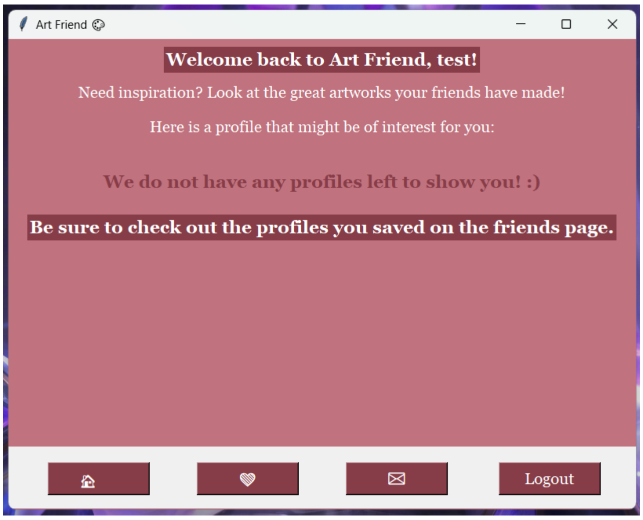
maggielikessuits

Insta: @maggielikessuits

Twitter: @maggiekongforever

I draw A LOT

Figure 3 Homepage – with randomized profile



Welcome back to Art Friend, test!

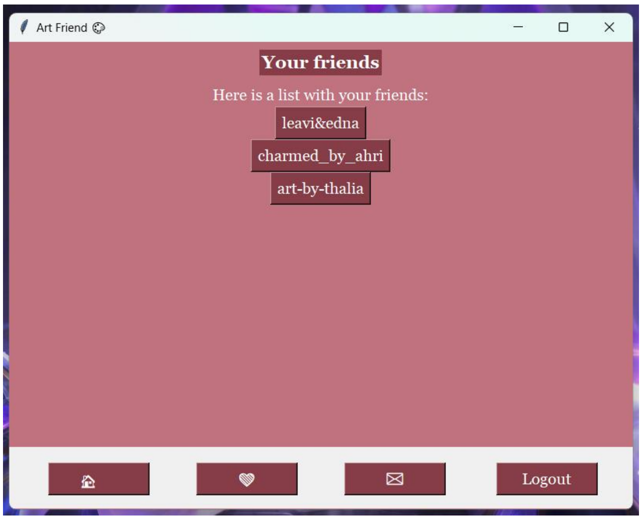
Need inspiration? Look at the great artworks your friends have made!

Here is a profile that might be of interest for you:

We do not have any profiles left to show you! :)

Be sure to check out the profiles you saved on the friends page.

Figure 4 Homepage - no available profiles



Your friends

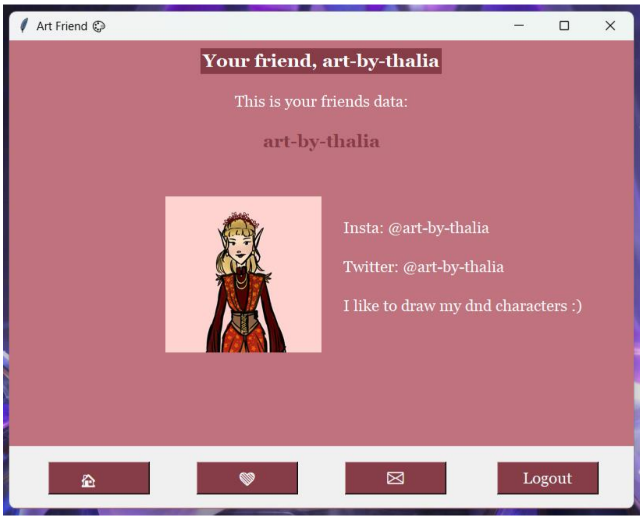
Here is a list with your friends:

leavi&edna

charmed_by_ahri

art-by-thalia

Figure 5 Friends Page – displaying all friends



Your friend, art-by-thalia

This is your friends data:

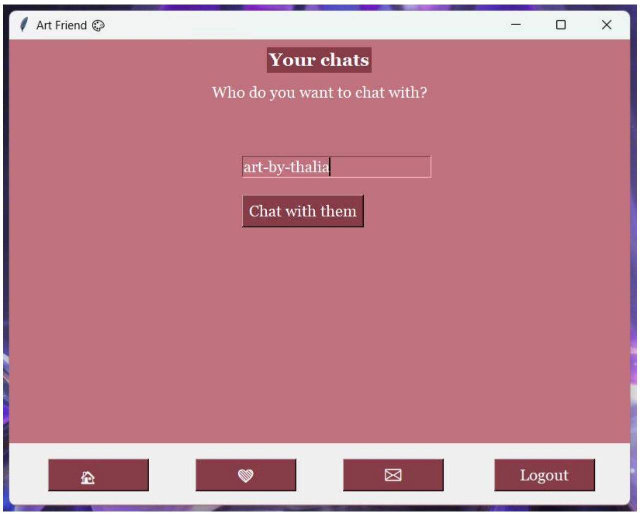
art-by-thalia

Insta: @art-by-thalia

Twitter: @art-by-thalia

I like to draw my dnd characters :)

Figure 6 Friends Page - displaying a friend's profile

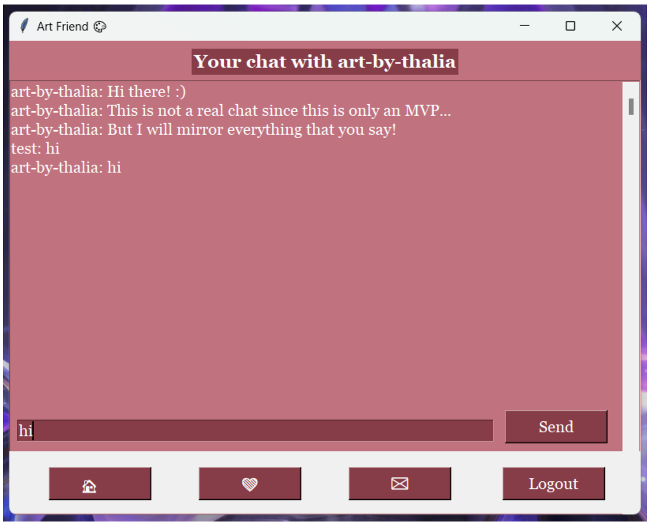


Your chats

Who do you want to chat with?

art-by-thalia

Figure 7 Chat Page – choosing who to chat with

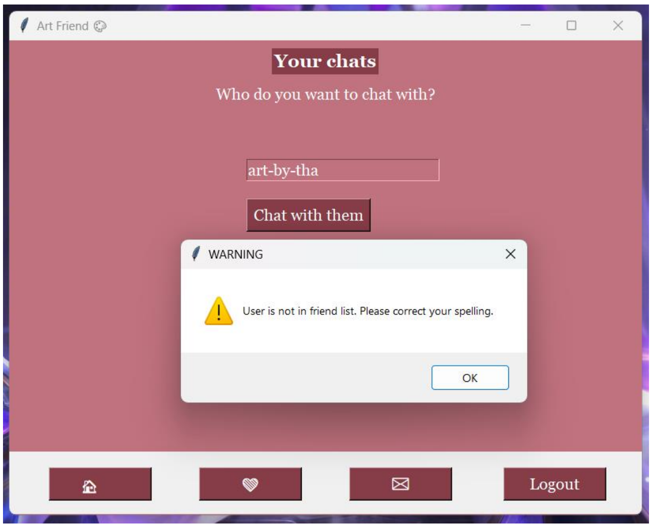


Your chat with art-by-thalia

```
art-by-thalia: Hi there! :)
art-by-thalia: This is not a real chat since this is only an MVP...
art-by-thalia: But I will mirror everything that you say!
test: hi
art-by-thalia: hi
```

hi

Figure 8 Chat Page - chatting with a friend



Your chats

Who do you want to chat with?

art-by-tha

User is not in friend list. Please correct your spelling.

Figure 9 Chat Page - typing in an incorrect name