CADT
IDT វិទ្យាស្ថានបច្ចេកវិទ្យាឌីជីថល
Institute of Digital Technology

DEPARTMENT OF COMPUTER SCIENCE
SPECIALIZED IN DATA SCIENCE

MATCHING WITH YOUR SOULMATE

Exploring Diverse Dimensions of Love!

Course: Object-Oriented Programming (python)
Term 2, Academic Year 2024 - 2025
Submitted to: Lect. Han Leangsiv
Submission date: Sunday 23rd March 2025

Members:

1. **Khy Pichsereyvathanak: Control flow and user data**
2. **Chum Phalla: Algorithm of matching**
3. **Soeun Sokchetra : Clean data and User interface**

INTRODUCTION

1. Problem Statement

People find matches traditionally through blind dates, which takes a lot of time and effort, and a lot of the times, they don't find a compatible match.

2. Objective

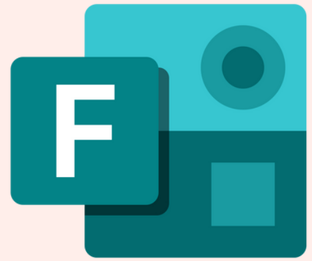
Our project is to match people based on their zodiac signs, age, personalities, height, and common hobbies using data science principles and object-oriented programming (OOP).

METHODOLOGY

1. Tools Used

Communication

Coding



Data Collection

METHODOLOGY

2. Libraries Used: random

```
#randomly display message one of it using random
def display_reject_message():
    #when ppl reject the match
    reject_message = ["Thank you for your time! This match is not the right fit for you, but do not worry—we will keep searching for someone m
    ,"Not every match is meant to be, and that is okay! We will find someone who truly clicks with you. Stay tuned for your next potential mat
    ,"We understand that this match was not the right fit. Your preferences matter, and we will continue working to find a better match for yo
    ,"This one was not the one,' but don't worry—your perfect match could be just around the corner! Lets keep the search going!"
    ,"Got it! We'll keep looking for someone who better matches your vibe. Stay patient—the right match is out there!"]
    print(Fore.YELLOW +random.choice(reject_message))
def display_accept_message():
    #when ppl accept the match
    accept_message = ["It is a match!Looks like you both are interested in each other. Start a conversation and see where it goes!"
    ,"Nice choice!You and your match are on the same page—go ahead and break the ice!"
    ,"Great news! Your match is in—now it's time to get to know each other. Who's making the first move?"
    ,"You've accepted the match! We hope this leads to a great connection. Start chatting and see where things go!"
    ,"Matched! Now it's time to chat and see if sparks fly!"]
    print(Fore.GREEN + random.choice(accept_message))
```

METHODOLOGY

2. Libraries Used: abc

```
class Person(ABC):
```

```
@abstractmethod
def get_profile(self):
    pass

@abstractmethod
def match_criteria(self):
    pass
```

METHODOLOGY

2. Libraries Used: colorama

used for adding color to text in the terminal.

```
def welcome():
    print(Fore.CYAN + "=" * 50)
    print(Fore.LIGHTRED_EX + "WELCOME TO MATCHING WITH YOUR SOULMATE".center(50))
    print(Fore.CYAN +"=" * 50)
    print(Fore.MAGENTA + "Finding your perfect match has never been easier!")
    print(Fore.GREEN + "Let's get started.... \n"+ Style.RESET_ALL)
```

IMPLEMENTATION

DATA COLLECTION

Storing men and women files in two separate files for data comparison.

MATCHING ALGORITHM

We scored the compatibility from 0 to 100% according to a user's preference.

PROCESS

When users start to find matches, we have a function to read data in a men and women text file and then calculate the percentage of matching. The match percentage must be at least 50% for suggestion.

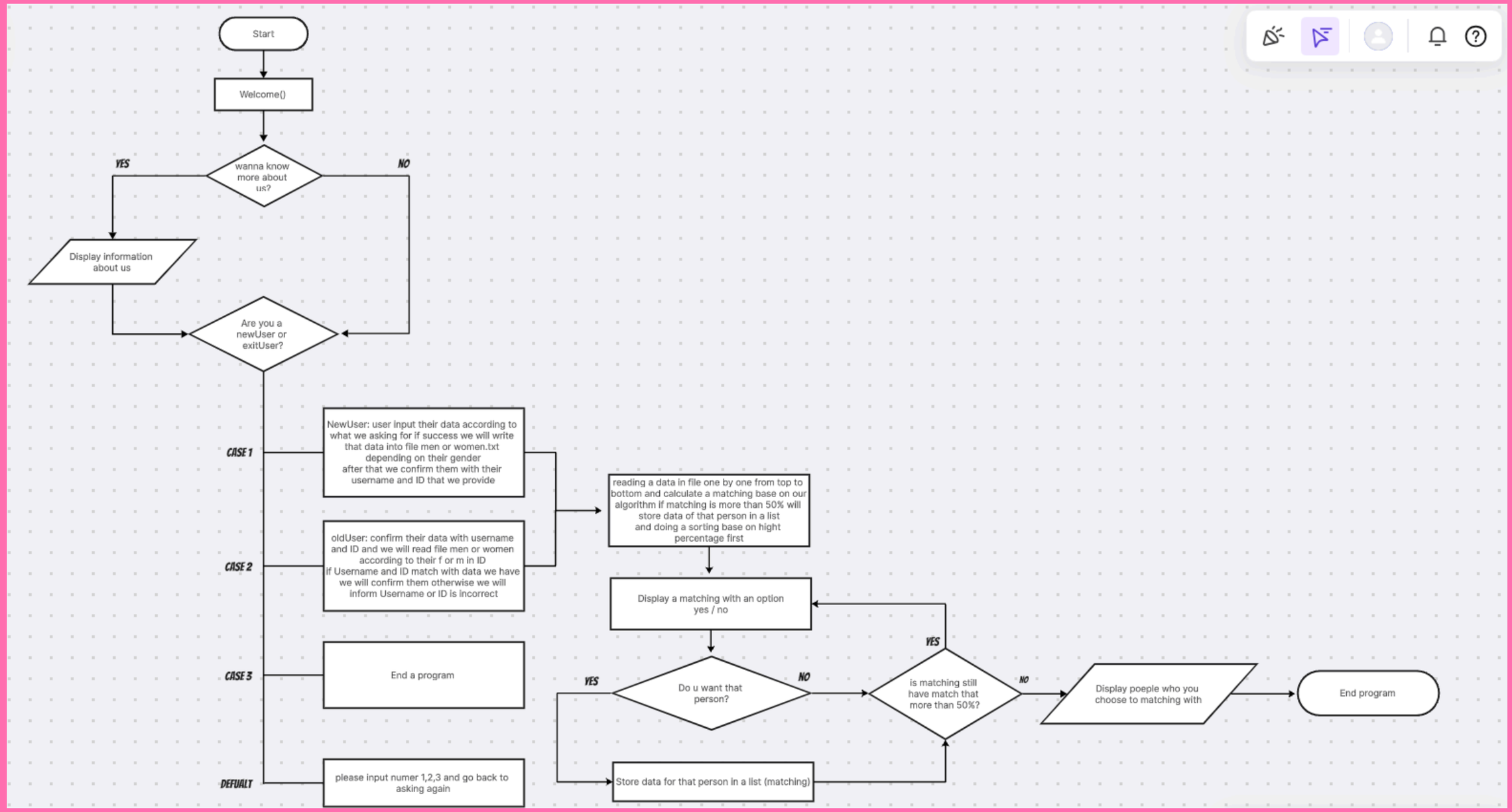
GITHUB

https://github.com/kronos-optimize/G1_T2_Project

PROJECT STRUCTURE

```
G1_T2_Project/
|-- documents/
| ├── G1_T2_Report.pdf # Our report for this project
| ├── G1_T2_Slide.pptx # Slide presentation (PowerPoint format)
| ├── G1_T2_Slide.pdf # Slide presentation (PDF format)
|
|-- G1_T2_Code/
| ├── main.py # Main program logic
| ├── test.py # Checks if each line in text files has 20 columns
| ├── text_files/
| | ├── men.txt # Male user data
| | ├── women.txt # Female user data
|
|-- README.md # Project documentation
```

WORKFLOW


Start
Welcome()
wanna know more about us?
YES
NO
Display information about us
Are you a newUser or exitUser?
CASE 1
NewUser: user input their data according to what we asking for if success we will write that data into file men or women.txt depending on their gender after that we confirm them with their username and ID that we provide
CASE 2
oldUser: confirm their data with username and ID and we will read file men or women according to their f or m in ID if Username and ID match with data we have we will confirm them otherwise we will inform Username or ID is incorrect
CASE 3
End a program
DEFUALT
please input numer 1,2,3 and go back to asking again
reading a data in file one by one from top to bottom and calculate a matching base on our algorithm if matching is more than 50% will store data of that person in a list and doing a sorting base on hight percentage first
Display a matching with an option yes / no
Do u want that person?
YES
NO
Store data for that person in a list (matching)
is matching still have match that more than 50%?
YES
NO
Display poeple who you choose to matching with
End program

RESULT

1. Welcome page and options

```
==================================================
      WELCOME TO MATCHING WITH YOUR SOULMATE
==================================================
Finding your perfect match has never been easier!
Let's get started....

Wanna learn more about US before starting the program? (yes/no):
```

```
 Alright! Let's continue.

Are you a new user or an existing user?
1. New User (Register)
2. Existing User (confirm Username and ID)
3. Exit
Please enter your choice (1 | 2 | 3): 1
```

RESULT

2 After user verification:

```
==================================================
You successfully check in our program.
Username: Sokha
ID: f147
YOU need Username and ID for using our program next-time.
==================================================
Are you ready to find your soulmate?
yes/no: yes
```

RESULT

Suggested match for user:

```
Here is a potential match:
Man: Rika
Age: 22
Height: 170
Zodiac Sign: Leo
Occupation: Worker
Personality: Ambivert
Love Language: Quality Time
Hobbies: Gym & weightlifting, UI/UX design, Reading, Cooking, Traveling, Painting
Match Score: 61%
Do you accept or reject this person? (yes/no): yes
```

RESULT

3 Final result:

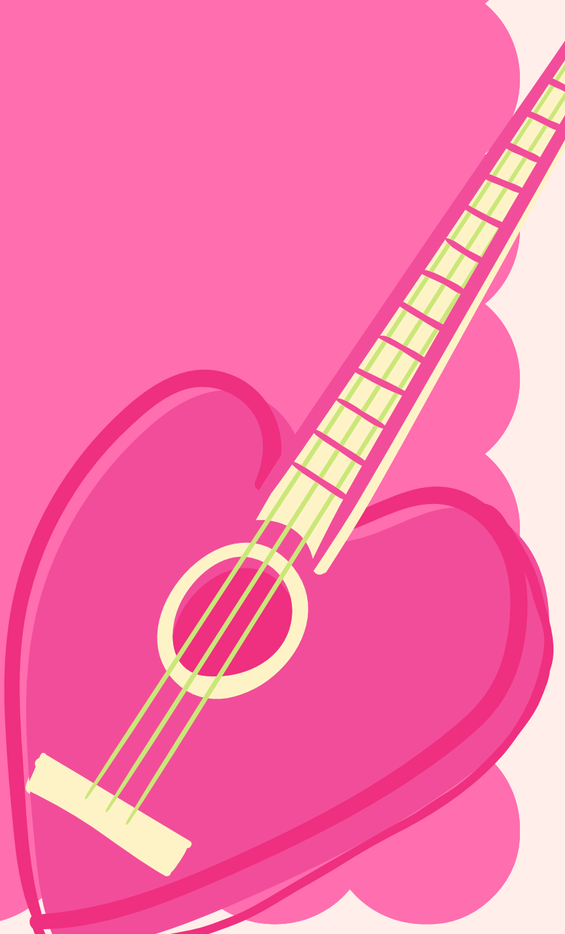
```
Height: 150
Zodiac Sign: Taurus
Occupation: Student
Personality: Ambivert
Love Language: Acts of Service
Hobbies: Camping, Gaming, Movies/Documentaries, Coffee brewing, Traveling, Singing
Match Score: 51%
Do you accept or reject this person? (yes/no): no
Not every match is meant to be, and that is okay! We will find someone who truly clicks with you. Stay

Here are your accepted matches:
Username: Hilo, Score: 60%
Username: Ahaa, Score: 53%
Username: Lee, Score: 52%
Username: Cheks, Score: 51%
Username: Vicheakta, Score: 51%
```

CONCLUSION

This project highlighted the importance of networking, privacy challenges in data collection, and the need for logical reasoning in matchmaking algorithms. Despite challenges, our passion made the process engaging and insightful.

FUTURE WORK

1. Administrative Dashboard
2. Enhanced Matching Criteria
3. Web-Based Platform
4. GUI Improvements



THANK YOU!

Hopefully your love life is beautiful