DATA STRUCTURES DSE 2155 FISAC I & II

TDC – The Dating Code

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Aim – to create a dating app using linked lists.

Methodology: What is our code?

The code written takes input from the user and displays a pre given data base displayed based on the preferences taken from the user.

The choices of people most compatible are displayed to the user..

The user then can decide if the person suits his/ her tastes and can left and right swipe accordingly..

The right swipes are checked with the user data for compatibility.

A vibe score based on given data is now calculated.

At the end of the code the most compatible of the right swipes is displayed to the user. This is followed by other right swipes' compatibilities

Methodology:

What our functions do:

We used various functions:

The csvtolinkedlist function does exactly that! It converts the database from the csv file to a linked list.

The traverse function skimmed through the data and based on what the preferred gender of the user was, displayed it.

The stackk function stores the right swiped data in a stack.

The insert function was used to add the data in the stack

The insert function is used to add elements from the database into a queue.

Data Structure used:

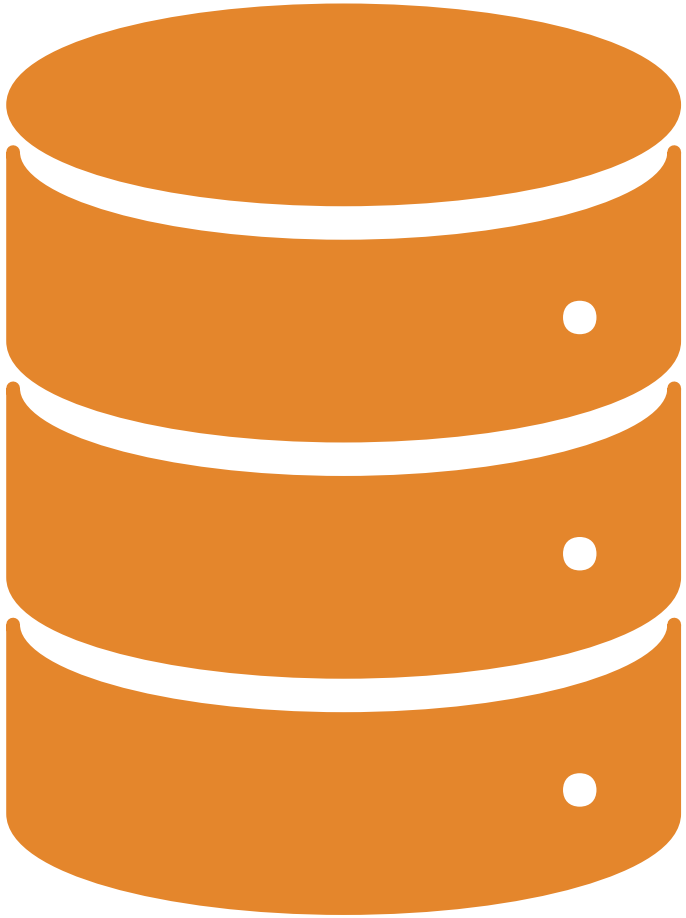
The data structure we have used is Linked Lists.

We wanted to work on real world data, so we sent out a google form taking inputs from people around us. This was taken as our data base.

The individual datasets (datatype: struct) were stored using linked lists.

The right swipes in the data are stored in a stack, The compatibility (vibe score) of the people in the stack is then calculated and the stack is then displayed at the end.

Benefits of the data structure used:



Linked lists

Utilizing the property of dynamic memory allocation thus no memory is wasted.

On expansion of our database, we do not have to make amends, the code is made to accommodate the same.

Stacks

Used to store the data that was right swiped. The last added element is popped.

Results obtained

```
                                                    Welcome!!
                                                    *********
 Here is the very awaited dating app!
Insert your details below to get started
```

```
Enter your name:
Sneha
Enter your number:
23456789
Enter your height in cm
145
Your gender :
1. Male
2. Female
Female
Now, your birthday!
What is your date of birth (enter in dd/mm/yyyy format)
17/10/2002
What would be  the gender of your significant other?
1. Male
2. Female
Male
What is your food preference?
1. Veg
2. NonVeg
3. Vegan
Veg
What type of personality do you think you have?
1. Introvert
2. Extrovert
3. Ambivert
Introvert
What kind of music do you most vibe to??
1. Pop
2. Rock
3. HipHop
4. Jazz
5. Country
6. Classical
```

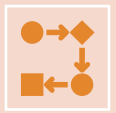
```
What quality would you definitely want your significant other to have?
1. The perfect Hair
2. Great Eyes
3. A sense of humour
4. A flawless smile
5. Loyalty
Loyalty
1.To view people
2.To view your right swipes:
1
Sanskruti Rajan
9741229028
Female
Male
18-08-2004
Ambivert
Classical
154
Loyalty
Veg
Female1.)Right Swipe
2.)Left Swipe
3.)Exit
Enter choice:1
Arijith
9108527103
Male
Female
24-07-2003
Extrovert
Pop
171
Loyalty
Veg
Male1.)Right Swipe
2.)Left Swipe
3.)Exit
```

Name	Vibescore
Sanskruti Rajan	66.6667
Arijith	91.6667
Manash Aggrawal	45.8333
Ishaan	54.1667

Contributions of individuals

Ansh Kankani - Created linkedlists, data segregations using functions, designing insertbeg and insertend, creating a stack and adding the right swiped(selected)

Dev Thakkar - designed the compatibility functions for the right swiped data, incorporating struct data type for swiping matches, popping stack function using linkedlists



Sonakshi Badlani - imported and converted csv to linked lists, calculation of zodiac and designing input function, traversal of linkedlists, designed ppt

Dhruv Gera - database collection and cleaning of data, designing output functions and designing of the deletion function in the linkedlist.

Conclusions

Learning how to work on real world data.

Working with excel files and incorporating them in code specific solutions.

Output design elements via table width preferences.

The importance of linear data types such as LinkedLists over arrays.

The dynamic memory allocation of the same aided us in not having to increase memory allocated every time there is a new data added to our data base.

References

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