Data Mining on Student chat files Presentation

CSB 101 Project

Guide:

Dr. Chandra Prakash | डॉ चंद्र प्रकाश

Assistant Professor | सहायक प्रोफ़ेसर

Presented By :

Bharghava Narasimha| भार्गव नरसिंह
Roll No: 201210032

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Problem statement

- Background:
  - Under the Covid pandemic circumstances, all the education organization started conducting online classes using Google Classroom, MS Teams, Zoom etc meeting tools.
  - Academicians have difficulty to
    - spend more time to get the student attendance having the screen presented to the students during their live sessions
    - understand more on the student understanding on the topic through the posted comments
    - backtrack the posted responses and comments in the chat window
    - High level assessment on student performance and active listening

- Problem Statement: To address the above difficulties, start to perform data mining on the student google classroom chat files to find the individual attendance and publish the count on the post comments.

Solution Proposed

- Perform data mining using C programming language on the student google classroom chat (*.txt) files
- Find a student attendance based on his response in the chat
- Count the chat messages of a student on each day

- Advantages:
  - spend less time to get the student attendance having the screen presented to the students during their live sessions
  - understand more on the student understanding on the topic through the posted comments
  - backtrack the posted responses and comments in the chat window
  - High level assessment can be done on student performance and active listening

About Program

- Input module
  - Open the chat file and read line by line
  - Implement using C language file library functions

- Parsing module – Search for the target student name, attendance date, count the posted messages
  - Implement using C language string library functions
  - Design and develop custom string handling logic

- Output module – Display the attendance and number of message posted.

About Program

- **Environment Setup:**

UBUNTU 20.04 (LINUX)

- **FUNCTIONS USED:**

* strstr()

* strlen()

* fgets()

etc….

- **Header files used:**

 <stdio.h>

< string.h>

< ctype.h>

Result/ Outcome

Chat file analytics

```
1:01-02-2021
2:02-02-2021
3:09-02-2021

data for 3 days is found in the given TEXT file
```

Student analytics

```
Please Enter the NO_OF Students
2

ENTER TARGET NAME        Bharghav
Bharghav is present 3 days out of 3 days        Percentage of student is 100.0
DATE                     NAME                    #MSGS
01-02-2021               Bharghav                        8
02-02-2021               Bharghav                        6
09-02-2021               Bharghav                5

ENTER TARGET NAME        VEDANT
VEDANT is present 3 days out of 3 days  Percentage of student is 100.0
DATE                     NAME                    #MSGS
01-02-2021               VEDANT                  7
02-02-2021               VEDANT                  4
09-02-2021               VEDANT          4
```

MY LEARNING:

- Debugging Techniques.
- FILE Handling.
- Data processing.

PROBLEMS FACED:

- C language libraries has less support for the string handling.
- More time spent on Output formatting on the display/monitor.
- scanf() not reading the input string after a space character(Crude Programming).

Future Work

- Improve the program performance while reading the big size chat input files using dynamic programming.

- Enhance the usability, look and feel with GUI components.

- Scaleup to handle other online meeting tool file formats.

- Promote to translate the posted messaged to another language/locale .

- Implement this tool as a Multilingual application for international users (ex. Hindi, Japanese, French, German).

- Integrate with data analytics, data mining and artificial intelligence tools

Demo

The Program Prompts user to input the path of txt file and and a MENU appers Asking USER to select his choice.

Later the program prompts the user to Enter target name to access the data

```
Please Enter the NO_OF Students
2

ENTER TARGET NAME        Bharghav
Bharghav is present 3 days out of 3 days        Percentage of student is 100.0
DATE                     NAME                    #MSGS
01-02-2021               Bharghav                        8
02-02-2021               Bharghav                        6
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ENTER TARGET NAME        VEDANT
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02-02-2021               VEDANT                  4
09-02-2021               VEDANT          4
```

Further Displays his/her attendance and number of messages inputted by student and class stats.

References

- Let Us C book – Yashavant P Kanetkar
- https://www.geeksforgeeks.org/
- StackoverFlow.com
- NOTEPAD++

THANK YOU