

IT-205 Data Structures Course (Sec B)

Capstone Project Report

Project Title: DA-IICT Club Manager

Team ID: **V Unbeatable**

Group Members:

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Project Topic(P-6): DA-IICT Club Manager:

We need to build a manager for all the DA-IICT clubs. The manager ensures that a club member can be looked up in minimum time. A member can either be a faculty or a student. One should be able to search by name, ID, specific club name, or club category (i.e., arts, science & technology, sports, culture). Note that the user of this manager may not be from DA-IICT and, therefore, may not know the clubs' names.

Git Hub Repository Link: <https://github.com/Chirag16012005/Capstone>

Description:

We have loaded the data about club names and their members along with their details like Student ID in a text (.txt file). We have tried to address the problem of any user who is not from DA-IICT by also including Mobile Number as a detail of a Club Member. We have used HASH TABLES as our data structure to store names of club, their members and details so that they can be looked up in minimum time. We have used STL (Standard Template Libraries) like `#include<map>`, `#include<unordered_map>` for hash table.

FORMAT OF THE .TXT FILE:

(Name of Club) (Student ID) (Name of Member) (Contact Number) (Position—Member/Core)

Every detail is separated by space, CLUB word is not needed.

In the name of member, there is a space between First name and Last name.

For example,

Radio 202201269 Tanay Kevalramani 9725734921 Core

Sambhav 202201269 Tanay Kevalramani 9725734921 Core

We will provide the participate.txt file in which there are details regarding username password and email ID and name of any person who wants to participate in event. It is

uploaded in the GitHub, named as participate.txt. The file is needed to be used to run functions regarding event participation in ev_par()

We have included following **functionalities** for the user in the Club Manager:

- 1) To get all the club members of a particular club
- 2) To get details of all members.
- 3) To get details of functioning and purpose of club.
- 4) To get brief introduction of event of clubs
- 5) To search any member in any club by three means:
 - a) By Student ID
 - b) By Contact Number
 - c) By Member's Name
- 6) To become a member in any club of user's choice which is followed by a Questionnaire.
(Unique Questions for each club)
- 7) To remove any name from any club
- 8) To know about event/contest of any club
- 9) About 3 major events: Synapse, ifest, Concours
- 10) If user want to participate in any event
- 11) Any core member can change the details regarding any event

WHY HASH TABLES?

There are several factors which made hash tables a good choice according to the nature of the given problem.

- 1) Hash Maps store data in the form of key-value pair which allows faster retrieval or access because of keys.
- 2) The time complexity to access data, to insert and to delete becomes constant because of hash maps.
- 3) They can handle custom data types also as keys and values instead of only primitive data types.

HEADER FILES THAT WE USED:

#include<iostream>:

It provides functionalities for reading from and writing to console. (Input Output Stream).

#include<fstream>:

It provides functionalities to read from file or to write in the file. In our case, the file extension is .txt

#include<string>:

It provides the string class and various functions to manipulate strings.

#include<unordered_map>:

It is a part of C++ STL (Standard Template Libraries) which provides a container to store the data in the form key-value pairs, it is implemented using hash table. The data is in unsorted form.

#include<iomanip>:

This is a new header file that we came across while doing this project. It provides functions for manipulating input and output formatting. It stands for input output manipulation. We can control aspects such as alignment of output in console, width and proper precision.

PSEUDO CODE:

1. To load data from file to map:

FUNCTION PARAMETERS: string of file name(.txt)

Begin

Ifstream f //Declaring object of class ifstream(To read from file)

f.open

While (f! = End of File)

Directory [club name] [id] = make_pair(name, make_pair(number, position))

Name_id= unordered multimap<string, long long > //Name, Id

A=0

C=count occurrences (name) //To check if the name-id pair already exists

IF(C>0)

//If such a pair exists, then check for ID

For (each (name, id) in name_id[name])

If (name_id.id==ID)

A=1

END if

END For Loop

END Outer if

IF (C==0 and A==0) //If name-id pair does not exist, then add it into name_id pair

Name_id.insert (name,id)

END if

f.close //Close the file

End

SPACE COMPLEXITY: O (N), N is the number of entries (members in text file)

// When the program starts, data gets loaded into the customized data structure and hence space is consumed only once so during the execution of other functions, space will not be further consumed.

2.To get all the members of a club:

FUNCTION PARAMETERS: Directory of type (given below), string of club name

We took a directory using unordered maps of type:

unordered_map<string, unordered_map<long long, pair<string, pair<long long, string>>>

String: Club Name, Name of member, Position

Long long : ID, Contact

Begin

N=1

PRINT: Club-- Name-- ID-- Contact-- Position--

for (each student in directory(club))

PRINT: Name-- ID-- Contact-- Position--

N=N+1;

End FOR LOOP

End

TIME COMPLEXITY: O (1) (Constant)

SPACE COMPLEXITY: O (C+M) //where C is the number of clubs and M is the average number of members of club.

OUTPUT

Radio Club member details				
Name	Student ID	Contact Number	Position	
Ruchika Amin	202201220	7600173025	Core	
Dhyey Parekh	202303004	8460342552	Member	
Chirag Katkoriya	202301259	9016554676	Member	
Riddhish Upadhyay	202303017	9909268822	Member	
Nishith Parekh	202101420	8551262355	Core	

3. To get details of all members

FUNCTION PARAMETERS: Directory of customized data type

Begin

For (each club) i=0

If (directory[club[i]] is not empty)

PRINT: Club[i] //Club Name

N=1

For (each element in club[i])

PRINT: Name-- ID-- Contact-- Position--

N=N+1

END INNER FOR LOOP

END IF

End FOR LOOP

TIME COMPLEXITY: O (n) (Linear), where n is the total number of members

OUTPUT:

All the club member details are as follows:			
=> Microsoft Club :			
Name	Student ID	Contact Number	Position
Parth Karena	202301472	8780732908	Core

=> Radio Club :			
Name	Student ID	Contact Number	Position
Ruchika Amin	202201220	7600173025	Core
Dhyey Parekh	202303004	8460342552	Member
Chirag Katkoriya	202301259	9016554676	Member
Riddhish Upadhyay	202303017	9909268822	Member
Nishith Parekh	202101420	8551262355	Core

=> DCEI Club :			
Name	Student ID	Contact Number	Position
Nikhil Vaghela	202303042	9726832275	Member
Samay Ashar	202001099	9364521387	Core
Manav Patel	202301187	7569823622	Member
Hemal Chavda	202301451	9157869787	Member
Jal Khunt	202301241	9313466099	Member
Het Shah	202001005	7041168801	Core

=> Sambhav Club :			
Name	Student ID	Contact Number	Position
Jayaditya Shah	202301259	8160878889	Member
Ami Pandat	202101224	9574322589	Core
Naitik Patel	202301210	9313400529	Member
Jayansh Gadhe	202301258	9824347594	Member
Om Patel	202301027	8320740816	Member
Dhyey Parekh	202303007	8460342552	Member
Nakul Patel	202301260	9925136082	Member

4.Search Function:

//Give choice for the user to search by name, id, contact.

// A Menu Driven Program

4.1 Search by ID:

FUNCTION PARAMETERS: directory, long long id

Begin

A=0, N=1

For (Each club in directory)

Person=directory [club]. find (id)

If (Person! = eof)

A=A+1

If(A==1)

PRINT: Person Details, Club-- Name-- ID-- Contact-- Position--

N=N+1

Else //A>1

PRINT: Club name and Position

END Else

END If

END Outer If

If (A==0)

PRINT: Person Not Found

END if

End

TIME COMPLEXITY: O (1) (Constant)

OUTPUT:

=====Student Details=====				
Student ID	Student Name	Contact Number	Joined Club	Position
202301259	Chirag Katkoriya	9016554676	Radio Sambhav	Member Member
-----//-----//-----//-----//-----//-----//-----				

4.2 Search by Contact:

FUNCTION PARAMETERS: directory, long long number

Begin

Count=0

Long long Id

For (Each club in the directory)

Person=directory [club [i]]

If (Number == Person.number)

Id=Person.id //Extracting the Id of the person

Count=Count+1

Search_by_id(Id) //Calling search by Id function

END if

END For Loop

If (Count ==0)

PRINT: Person Not Found

END if

End

TIME COMPLEXITY: O (n) (Linear) where n is number of entries of members in directory.

OUTPUT:

Student Details				
Student ID	Student Name	Contact Number	Joined Club	Position
202301210	Naitik Patel	9313400529	Sambhav	Member

4.3 Search by name:

{Search Function is so efficient, that even if two persons with same name are found, the code will give us notification and will ask for more details to filter the names. IDs are unique.}

FUNCTION PARAMETERS:

unordered_map<string, unordered_map<long long, pair<string, pair<long long, string>>>>
&directory

unordered_multimap<string, long long> &name_id

String name

BEGIN

Long long Id

C=0;

C= name_id.count (name) //count is a function which returns number of elements in
//unordered map with a specified name (string)

If (C==0)

PRINT: Person not found

Else If (C==1)

Element=name_id.find (name)

Id= element.second //Extracting Id of the person

Search_by_id (Id)

// TIME COMPLEXITY: O (1) (Constant)

For the worst case: O (n)

//Example is below

Else If (C==2) //It means that there are TWO persons

PRINT: More than 1 result, so additional information is required

Label: //go to label is used

//Menu Driven Programme 1. To show all results

```
// 2. To find by ID  
// 3. To find by mobile number  
// 4. To find by club name  
  
If (A==1)  
  
Element = name_id. Equal_range (name)  
  
For (person=element.first ; person! =element.second ; person ++)  
Id=person.second  
  
Search_by_id (Id)  
  
END For loop  
  
//Example is below
```

```
Else If (A==2)  
  
Long long b //ID  
  
//Take b as input  
  
Search_by_id (ID)  
  
//Example is below
```

```
Else If (A==3)  
  
Long long contact  
  
// Take contact as input  
  
Search_by_contact (contact)  
  
//Example is below
```

```
Else If (A==4)  
  
D=0  
  
//Taking club name as input  
  
For (element directory [club-name])  
If (club-name == element.second.first)  
  
If (D==0)  
D++
```

Id=element.first

END if

Else If (D==1)

If (id! = element.first)

D++

Break from loop

END if

END outer if

If (D==0)

PRINT: Wrong detail, enter other detail

Goto label

Else If (D==1)

Search_by_id (Id)

Else If (D==2)

PRINT: More than one person with same name, more data

1. To show all result

//ID is extracted from matched name

Search_by_id (Id)

2. To give id

// Take id as input from user

Search_by_id (Id_UserInput)

3. To give number

//Take contact as input

Search_by_contact (contact_UserInput)

END if

End // TIME COMPLEXITY: O (1) (Constant)

Student Details				
Student ID	Student Name	Contact Number	Joined Club	Position
202301210	Naitik Patel	9313400529	Sambhav	Member

5. Add your name as a member of any club: (addentry.h)

PARAMETERS: Directory

// Menu Driven Programme in which user will be able to choose the club which he/she wishes to join.

//It is followed by Questionnaire consisting of 3 Questions, based on the answers it will be decided, whether the person can be a part of the club

Add function (Parameters: Directory, String of the club's name that he is eligible to join)

unordered_map<string, unordered_map<long long, pair<string, pair<long long, string>>>> &directory

// The function asks user to give details

Directory [club][ID] = make_pair (name, make_pair (contact, position))

TIME COMPLEXITY: O (1) (Constant)

OUTPUT:

```
Enter the number of the club in which you want to get added
-----
1.Radio Club          2.Sambhav           3.Business Club        4.DCEI
5.CINS                6.Webkit Club        7.Muse Club            8.Debate Club
9.Music Club          10.Developer Student Club 11.Chess Club          12.Press Club
13.IEEE               14.Film Club          15.Research Club       16.Programming Club
18.Khelaiya Club      19.Cubing Club        20.Excursion Club     21.BIS club
17.PMMC               22.Heritage Club       23.Electronic Hobby Centre 24.Headrush-quizzing
25.DAIICT Theatre Group
Enter Choice: 1

Have you heard any news, speech from radio in the past? (YES - 1 and NO - 0): 1
Do you have interest in writing poems, giving speeches? (YES - 1 and NO - 0): 1
Do you love graphic designing? (YES - 1 and NO - 0): 1

Welcome to the Radioclub
Enter your full name: Parth Karena
Enter ID: 202301472
Enter Contact Number: 8780732900
You join in Radio club succesfully..!!
```

6.Club details (clubinfo.h)

BEGIN

//Menu driven Programme in which user will choose the club

FUNCTION NAME: void info (int r)

PARAMETERS: Integer

Switch (r)

// Will call the function of club_info()

PRINT: Club information // Few Sentences

END

TIME COMPLEXITY: O (1) (Constant)

OUTPUT:

```
DAIICIT was created as one of the most advanced institute in 2001 which believes in overall development. Along with academics the focus is also on co-curricular activities, as a part of this, DAIICIT has also made sure that all students have opportunities to enhance their skills and hobbies along with academics. The clubs at DAIICIT serve to provide platform for students to showcase their talents and skills regarding their hobbies. One of the oldest and most popular events at DAIICIT is Synapse-Synapse is a celebration, a celebration of culture, technology and life. It is about realizing the underlying interconnection of the three in an electrifying atmosphere. Similarly, through exciting workshops, impressive events, and mesmerizing pro-nights, other clubs and their events are a medium through which the youth can express their views, be it through art, culture, technological skills, knowledge or entertainment. It also promotes various cultural activities like music, drama and dance amongst the student community. LETS GET A SNEAK-PEEK OF CLUBS
--AI Club--
Started in 2020, it aims to educate others about AI.EVENT: i.Prompt, Prompt-A-Thon to create AI framework.
--Press Club--
Started in 2010, it is the main journalism cell of DAIICIT. EVENT: Comic Carnival: A Comic Making Challenge, and Entelechy-the student run magazine of DA
--Debate Club--
We are a group of people who believe in the power of words to bring change, who promote discussion.EVENT: Parliamentary Debates to enhance knowledge and dissent
--Dance Club--
Dance Club or DADC as it is known, tries to cater the dancing instincts of students. EVENT: WALTZ to electrify the atmosphere
--OCCI Club--
We are DA-IICT Centre for Entrepreneurship and Incubation. EVENT: SelOut, to show business skills
--Music Club--
Raga to Develop an interest in students towards music and create a healthy music atmosphere. EVENT: RAAGA AND RHAPSODY
--PTC Club--
DAIICIT Theatre Group is a club that conducts and administers theatrics events of DAIICIT.EVENT: Rangmarch - The Drama Night
--Research Club--
We aim to work to foster a community within the college for those interested in research.EVENT: i.Papyrus to develop liking for research
--Chess Club--
We focus on enhancing the skills of the students having interest in chess. EVENT: Rapid chess Contest
```

7.Delete your name from any club:

FUNCTION PARAMETERS: Directory

BEGIN

Label:

PRINT: Enter your id and club

If (directory [club]. find (id)! =directory [club]. End ())

Directory [club]. Erase (id)

Else

PRINT: You have entered wrong credentials

Goto Label

END

TIME COMPLEXITY: O (1) (Constant)

OUTPUT:

```
What made you to leave this club:
Personal
```

```
Please enter your id: 202301259
```

```
Please enter Your club name: Radio
```

```
You left this club successfully
```

8.To know about event/contest of any club:

The parent function is:

Event (unordered_map<string, unordered_multimap<int, Event>> data), where EVENT is a class which is defined as follows

- String name
- String date
- String time
- Int rating
- String venue
- String in1
- String in2
- String rule1
- String rule2
- String rule3

//Menu driven program for different functionalities

It //label

INPUT: Event name

A=0

For (Every club)

For (every event of club)

If (event. Second.name == Event name) //Event name by user

PRINT: All Details

A=A+1

END If

END For loop

END for loop

If (A==0)

PRINT: Wrong Event name

Goto it

TIME COMPLEXITY: O (1) (Constant)

OUTPUT:

1.Info of all events of all clubs

```

1.to get info of any particular event
2.to get info of all events of an club
3.to get info of all events in a particular month
4.to get info of all events of a club in a particular month
5.if you don't know how many events conducted by clubs of daiict You will get info of all events
Enter Choice: 5
Here is detail of all events
-----
Event Details:
-----
Club Name : AI
Name : Prompt-A-Thon
Date : 21/08/2024
Time : 19:00 to 21:00
Venue : online
Rating : 5
-----
Information : AI Club is holding an event where you will send prompts based on wildest and out of box scenarios and you may also convert it into AI framework.
Let the horse of imagination run. The most interesting prompts will be awarded.
Rules : 1. Your creativity should not intend anyone anyone's feelings or faith.
       2. Please avoid any art which contains objectionable things
       3. Please submit your work before 20/08/2024.
-----
Club Name : AI
Name : iPrompt
Date : 05/11/2024
Time : 14:00 to 16:00
Venue : CEP 110
Rating : 5
-----
Information : In this event, creativity and technology converge in an extraordinary way.
In this challenge, you will be provided with images and prompts, and with power of AI, you will transform these prompts into AI artwork and show your AI creativity.
Rules : 1. Your creativity should not intend anyone anyone's feelings or faith.
       2. Please avoid any art which contains objectionable things
       3. Please submit your work before 04/11/2024.

```

2. To get event by particular club name:

```

1.to get info of any particular event
2.to get info of all events of an club
3.to get info of all events in a particular month
4.to get info of all events of a club in a particular month
5.if you don't know how many events conducted by clubs of daiict You will get info of all events
Enter Choice: 2
Enter the name of the club: Radio
-----
Event Details:
-----
Club Name : Radio
Name : Tok Chronicles
Date : 20/1/2024
Time : 20:00 to 22:00
Venue : Online
Rating : 4
-----
Information : This contest is our exclusive event where you can pour your heart out in a letter to your favourite character.
Show your creativity and express your admiration for the characters who left an indelible mark on your mind through an open letter to them.
-----
Club Name : Radio
Name : Weekly Poetry Writing Challenge
Date : 07/04/2024
Time : 19:00 to 21:00
Venue : Radio Room(CEP)
Rating : 5
-----
Information : Every year, the world celebrates the art of poetry writing in April, since 1996 and so it is called National Poetry Writing Month.
We invite all poets to share their unique perspectives through the poetry and share poem through recording or in written form

```

There are more ways of this also.....

9. To get details of all events of a club:

It2 //label

INPUT: Club name

B=0

For (every event of club)

PRINT: All Details

A++

If (A==0)

PRINT: Wrong Club

Goto it2

TIME COMPLEXITY: O (1) (Constant)

```

1.to get info of any particular event
2.to get info of all events of an club
3.to get info of all events in a particular month
4.to get info of all events of an club in a particular month
5.if you don't know how many events conducted by clubs of daict You will get info of all events
Enter Choice: 2
Enter the name of the club: Radio

-----
Event Details:
-----
Club Name : Radio
Name : Ink Chronicles
Date : 20/1/2024
Time : 20:00 to 22:00
Venue : Online
Rating : 4

Information : This contest is our exclusive event where you can pour your heart out in a letter to your favourite character.
Show your creativity and express your admiration for the characters who left an indelible mark on your mind through an open letter to them.
-----

Club Name : Radio
Name : Weekly Poetry Writing Challenge
Date : 07/04/2024
Time : 19:00 to 21:00
Venue : Radio Room(GP)
Rating : 5

Information : Every year, the world celebrates the art of poetry writing in April, since 1996 and so it is called National Poetry Writing Month.
We invite all poets to share their unique perspectives through the poetry and share poem through recording or in written form
-----
```

10.To get data about all events in a month:

It3 //label

Input: Number Of Month //for example 2 for Feb

C=0

For (event=data [club[i]]. equal_range(number)

For (person=element.first ; person!=element.second ; person ++)

PRINT: All details

If (A==0)

Goto it3

TIME COMPLEXITY: O (1) (Constant)

OUTPUT:

```

-----  

Event Details:  

-----  

Club Name : Radio  

Name : Weekly Poetry Writing Challenge  

Date : 07/04/2024  

Time : 19:00 to 21:00  

Venue : Radio Room(CEP)  

Rating : 5  

-----  

Information : Every Year, the world celebrates the art of poetry writing in April, since 1996 and so it is called National Poetry Writing Month.  

We invite all poets to share their unique perspectives through the poetry and share poem through recording or in written form  

-----  

Club Name : Sambhav  

Name : Blood Donation Camp  

Date : 05/04/2024  

Time : 14:00 to 17:00  

Venue : Faculty Mess(Near K++)  

Rating : 4  

-----  

Information : We are pleased to announce that we are organizing a Blood Donation Camp in association with the Indian Red Cross Society.  

Even the slightest bit of help is welcome and greatly appreciated.  

-----  

Club Name : Muse  

Name : Museliversary  

Date : 04/04/2024  

Time : 17:00 to 19:00  

Venue : Cafeteria  

Rating : 5  

-----  

Information : To mark this special anniversary, we prepare an array of exciting activities every year on this day.  

We're celebrating three years of creativity, innovation, and unforgettable moments that have brought us together as a community.  

-----  

Club Name : DAIICT_Theatre  

Name : Krishna Leela Auditions  

Date : 02/04/2024  

Time : 21:00 to 22:45  

Venue : LT1  

Rating : 4

```

11.To get info of all events of a club in a particular month:

INPUT: Club name and Month number

Initialize A=0

Retrieve the events for the specified club name and month number from the data.

Temp=data [club_name]. Equal_range (month_number)

For (person=element.first ; person! =element.second ; person ++)

If (A==0)

PRINT: All details

A=A+1

If (A==0)

PRINT: No event in any club matches the input

TIME COMPLEXITY: O (log n), where n is the number of elements in the range of events for the specified club name and month.

OUPUT:

```

1.to get info of any particular event
2.to get info of all events of an club
3.to get info of all events in a particular month
4.to get info of all events of an club in a particular month
5.if you don't know how many events conducted by clubs of daict You will get info of all events
Enter Choice: 4
Enter name of the club and month: If you want to know about Developer Student Club then type Developer_Student and for Headrush, type Headrush_Quizzing
and for DIG, type DAIICIT_Theatre and enter the month number afterwards.Radio
4

-----
Event Details:
-----
Club Name : Radio
Name : Weekly Poetry Writing Challenge
Date : 07/04/2024
Time : 19:00 to 21:00
Venue : Radio Room(CEP)
Rating : 5
-----
Information : Every Year, the world celebrates the art of poetry writing in April, since 1996 and so it is called National Poetry Writing Month.
We invite all poets to share their unique perspectives through the poetry and share poem through recording or in written form
-----
```

12.Detail of all events:

Iterate every club in the data and print all the details

TIME COMPLEXITY: O (n) where n is the total clubs

OUTPUT:

```

1.to get info of any particular event
2.to get info of all events of an club
3.to get info of all events in a particular month
4.to get info of all events of an club in a particular month
5.if you don't know how many events conducted by clubs of daict You will get info of all events
Enter Choice: 5
Here is detail of all events
-----
Event Details:
-----
Club Name : AI
Name : Prompt-A-Thon
Date : 21/08/2024
Time : 19:00 to 21:00
Venue : online
Rating : 5
-----
Information : AI Club is holding an event where you will send prompts based on wildest and out of box scenarios and you may also convert it into AI framework.
Let the horse of imagination run. The most interesting prompts will be awarded.
Rules : 1. Your creativity should not intend anyone anyone's feelings or faith.
       2. Please avoid any art which contains objectionable things
       3. Please submit your work before 20/08/2024.
-----
Club Name : AI
Name : iPrompt
Date : 05/11/2024
Time : 14:00 to 16:00
Venue : CEP 110
Rating : 5
-----
Information : In this event, creativity and technology converge in an extraordinary way.
In this challenge, you will be provided with images and prompts, and with power of AI, you will transform these prompts into AI artwork and show your AI creativity.
y.
Rules : 1. Your creativity should not intend anyone anyone's feelings or faith.
       2. Please avoid any art which contains objectionable things
       3. Please submit your work before 04/11/2024.
```

13. To edit any event:

FUNCTION PARAMETERS: (unordered_map<string, unordered_multimap<int, Event>>>&data, unordered_map<string, unordered_map<long long, pair<string, pair<long long, string>>>>&directory)

INPUT: ID and the club's name whose event they want to change.

Int i

A=0

Person=directory [club[i]]

For (all clubs)

If (Person!= directory [club[i]].End ())

If (person.second.second.second == "Core" && Club[i] == club_name)

//Only core members can change the status and details of events of their respective clubs

```
A=1  
END If  
Break from loop  
END If  
END For loop  
If (A==0)  
PRINT: You are not a core member
```

Else

//Allow the person to change any details of events

TIME COMPLEXITY: O (1) (Constant)

OUPUT:

If there is a clash, then following happens,

```
Enter your id: 202201220  
Enter the name of the club name whose event you want to change: If you want to know about Developer Student Club then type Developer_Student and for Headrush, type Headrush_Qu  
zzing  
and for DTG, type DAUICT_theatre  
Radio  
  
You are a core member of Radio, so you can make changes to its events  
  
Here all events which are held by Radio  
1 : Ink Chronicles  
2 : Weekly Poetry Writing Challenge  
  
Enter the name of the event you want to edit: Ink Chronicles  
  
Enter the new details for the event Ink Chronicles  
Which type of information you want to edit:  
1.to Modify Date  
2.to Modify Time  
3.to Modify Venue  
4.to Modify date time Venue  
5.to exit  
Enter Choice: 4  
Date(dd/mm/yyyy): 07/04/2024  
Time: 19:00 to 21:00  
Venue: Radio Room(CEP)
```

For normal,

```
Another event is already scheduled at that time or date  
Do you want to retry with different details? (y/n): Y
```

```
Enter the new details for the event Ink Chronicles  
Which type of information you want to edit:  
1.to Modify Date  
2.to Modify Time  
3.to Modify Venue  
4.to Modify date time Venue  
5.to exit  
Enter Choice: 1
```

```
Date(dd/mm/yyyy): 04/06/2024  
Event Ink Chronicles has been updated
```

14.To Participate in event:

FUNCTION PARAMETERS:

unordered_map<string, unordered_map<string, Person>>

unordered_map<string, unordered_multimap<int, Event>>

String file_name

Person is a customized data type:

string name;

string email_id;

long long contact;

string password;

Initialize an empty unordered_map called detail.

Ifstream f

f.open(file_name) // Open the file specified by the file_name parameter for reading.

Iterate over each line in the file:

Read data for Person object A from the line.

Extract event, username, and password from the line.

Add A to the detail map under the event and username keys.

f.close() //Close the file.

Return type is the detailed map.

15.EV_PAR FUNCTION:

Please use the participate.txt file uploaded in the GitHub for this functionality to run and execute.

1. Prompt the user if they are registered.

If not:

a. Ask the user to register by providing their name, contact number, email id, username, and password.

b. Check if the entered username already exists, if yes, ask for a new one.

c. Verify the entered password

2. If the user is registered:

- a. Ask the user to enter their username and password.
- b. Check if the entered username and password combination exists.
- c. If not, ask the user to try again or exit.

3. If everything is right, then ask the user to select an event they want to participate in.

- b. Find event details based on the selected event name from the event data type
- c. Display event rules to the user.

4. If the user chooses to join:

- a. Write the user's details along with the selected event to the file.
- b. Update the detail map with the user's participation details.
- c. Ask the user if they want a list of participants and events they have joined.

5. If the user chooses not to join then ask the user to join event of different club or leave.

Prompt the user to either participate in another event or leave.

7. Repeat the process until the user decides to leave.

TIME COMPLEXITY: O (1) Constant

OUTPUT:

```
Have you registered yourself ?? (Enter Y/N): N
You are new candidate please register yourself
-----
Please enter your name : karena parth
Enter your contact number: 8780732900
Enter your email id: karenaparth@yahoo.com
Now create your user name: parth123
Now create password: parth@123
Please enter your password again:parth@123

You are registration completed sucessfully

Here all events names :=
-----
Weekly Poetry Writing Challenge           Ink Chronicles
iPrompt                                     Prompt-A-Thon
Chess64                                      Rapid Chess Tournament
RAAGA AND RHAPSODY                      Festive Frames Photography Contest
Rolling Shutter(Videography)               Garba Night
Sheri Garba                                Movie Screening
IPL Screening                               Comic Carnival: A Comic Making Challenge
Valentine's Poetry Contest                 i.Papyrus
SYNOQUBIX                                 Mosaic Construction: Republic Day
sellout                                    Blood Donation Camp
India Regional Bootcamp                    GoLang Session
echai                                      Shaping Tomorrow's Sustainability Standards
Online Lecture Series                     Shipwreck and Prized British Parliamentary Debate!
Holi Long Programming Contest            IPC
Face Off 4.0                                Winter Of Code
Rangoli Competition: Unleash Your Creativity!   i.Quiz

Enter the name of the event you want to participate: iPrompt
```

```
Enter the name of the event you want to participate: iPrompt
```

```
Rules for this event is as below
```

1. Your creativity should not intend anyone anyone's feelings or faith.
2. Please avoid any art which contains objectionable things
3. Please submit your work before 04/11/2024.

```
Are you still want to join this event, Please enter Y|N: Y
```

```
You registered successfully for iPrompt
```

```
Do you want list of the person who is participated in this event
```

```
Enter Y|N: Y
```

Participate Name	Participate Username
------------------	----------------------

parth123	karena parth
jatin221	Jatin Mehta
priya456	Priya Singh

```
Do you want list of the events name in which you participate
```

```
Enter Y|N : Y
```

```
You Participated in these event:-
```

1. iPrompt

13.Major Events:

FUNCTION PARAMETERS: void

Person is a customized data type:

```
string name;
```

```
string email_id;
```

```
long long contact;
```

```
string password;
```

A customized data type is used: `unordered_map<string, unordered_map<string, mj_event>>`
data

Mj_event is a structure consisting of

```
Int day
```

```
String time
```

```
String venue
```

```
String info
```

```
//All the details are loaded into the unordered map
```

OUTPUT

```

There are three major events conducted by clubs and committees
1.Synapse 2.iFest 3.Concours

-----
SYNAPSE:
-----
Synapse is DAIICT's annual college fest, unites global artists and creative minds to showcase unique collages, share creative processes, and transforms into a vibrant night of live music, DJ performances, and dance parties, fostering creative connections and celebrating artistic expression.
It is spread across 4 days, from 22 Feb to 25 Feb.

-----
IFEST:
-----
iFest is one of the most anticipated and acknowledged technical fest all over Gujarat. It is lauded for its versatile and wide ranging technical, social and non-technical events.
The event spans across 3 days from November 3 to November 5

-----
CONCOURS:
-----
Concours is the annual national sports fest. Concours facilitates a healthy competition among the students in nine different sports. The central idea of the fest is to inculcate vigour and honour in the students.
It spans across 4 days from 26 October to 29 October.

1.to Show all event
2.to Show Particular event
3.to exit
Enter choice: 1

1.to show all event of Synaps:
2.to show all event of ifest:
3.to show all event of concours:
Enter choice: 1

```

PRINTING ALL EVENTS

```

-----
Synapse all events:

Event Name : MonoActe
Day : 2
Time : 09:00 to 12:00
Venue : LT2
Information : MonoActe is a theatrical event. Witness the power of a single performer in MonoAct. A solo act that weaves compelling narrative and showcases the versatility of a lone artist.

-----
Event Name : Concert
Day : 4
Time : 20:00 to 23:00
Venue : SAC
Information : Concert by multi award winner, Amit Trivedi. Get ready to feel the beat, the rhythm, and the soul of the music.

-----
Event Name : Rampage
Day : 1
Time : 01:30 to 03:00
Venue : OAT
Information : Rampage is a fashion show. Immerse yourself in the world of style at our Fashion Expo. Explore the latest trends, designs, and glamorous runway showcases.

-----
Event Name : Stand Up
Day : 1
Time : 20:00 to 21:30
Venue : OAT
Information : Stand Up will feature two great artists: Nishant Suri and Gurleen Pannu. The performances will be a mixture of clever storytelling, witty one-liners and spontaneous interactions which will be memorable.

-----
Event Name : Naach
Day : 4
Time : 15:00 to 18:00
Venue : OAT
Information : Naach, Hold your breath as dancers showcase the richness of our pristine heritage, pay homage to time-honored traditions

```

```

-----
Event Name : Stage Play
Day : 1
Time : 22:00 to 01:00
Venue : OAT
Information : Stage Play is a part of theatrical events. Immerse yourself in the world of stage plays. A theatrical experience that brings stories to life on a captivating stage.

-----
Event Name : Code Mutants
Day : 2
Time : 10:00 to 14:00
Venue : LT2
Information : Code Mutants is a tech event to show off your programming skills, and solve as many problems as you can.

-----
Event Name : Showdown
Day : 2
Time : 09:00 to 15:00
Venue : CEP Foyer
Information : Showdown is a dance event. Get ready to groove at our Hip-Hop Jam! A celebration of urban dance culture with beats that will make you move.

-----
Event Name : Canteen
Day : 3
Time : 11:00 to 17:00
Venue : Canteen
Information : Hunger Hikes is a fun event. A treasure hunt, but full of food. Showcase your knowledge about food.

-----
Event Name : Tech Hunt
Day : 2
Time : 10:00 to 13:00
Venue : Lab
Information : Tech Hunt is a technical event. Embark on a coding adventure where solving challenges unlocks the next code quest.

-----
Event Name : Rap Battle
Day : 4
Time : 13:00 to 16:00
Venue : Canteen
Information : Rap Battle, Use your frustration, thoughts, and feelings as a weapon and lay it out through a rap battle challenge

```

```
1.to Show all event
2.to Show Particular event
3.to exit
Enter Choice: 2

1.to show particular event of Synaps:
2.to show particular event of ifest:
3.to show particular event of councers:
Enter Choice: 2

Enter Event name: CSS Battle

Event Detials:
-----
event held by: I-FEST
Event Name : CSS Battle
Day : 0
Time :
Venue :
Information :
```

In our project we included following clubs:

AI	Business
Dance	BIS
Research	Debate
Chess	Music
Cubing	Programming
Excursion	IEEE
Microsoft	Heritage
Radio	Headrush_Quizzing
DCEI	Muse
Sambhav	Press
Film	Khelaiya
WebKit	Developer_Student
PMMC	DAIICT_Theatre
CINS	EHC

And the Following Events

Weekly Poetry Writing Challenge	i.Quiz
Ink Chronicles	WALTZ

IPrompt
Prompt-A-Thon
Chess64
Rapid Chess Tournament
RAAGA AND RHAPSODY
Festive Frames Photography Contest
Rolling Shutter(Videography)
Garba Night
Sheri Garba
Movie Screening
IPL Screening
Comic Carnival: A Comic Making Challenge
Valentine's Poetry Contest
i.Papyrus
SYNOCUBIX
Mosaic Construction: Republic Day
SellOut
Blood Donation Camp
India Regional Bootcamp
GoLang Session
echai
Shaping Tomorrow's Sustainability Standards
Online Lecture Series
Shipwreck and Prized British Parliamentary Debate!
Holi Long Programming Contest
IPC
Face Off 4.0
Winter Of Code
Rangoli Competition: Unleash Your Creativity!
If code goes for an infinite loop, then you may have entered space while giving club name

