UrBook

Team Details:-

1) Nipun Mittal – NBTG14450

2) Aviral Jain – ECN14068

3) Anshika Kamboj – EMP61884

Abstract of the Project:-

A personal Diary is a record of events and feelings that a person faces, people like to keep a record of these feelings and events to have a glance at a later stage in life, people often also store contact information of friends and family, so our project, UrBook, intends to provide user a secure application to write and store personal details and records to keep safe and together. The project shall provide multiple options for different things to be recorded on daily or occasional basis. The user gets to enter personal daily diaries and read them as per convenience. User can also conveniently store details of their companions and friends just like in a slam book, like friends' name, email addresses, phone number, etc. which will be stored to look back at any time. Additionally user can also prepare to-do lists in which user can jot down important tasks to remember at a single place. The whole project for privacy is secured using username and password.

Topics of SDF-I covered in the project:-

1) Data

2) Data types

3) Variable, constants and keywords

4) Operators

5) Control statements

6) Implementation of 1D/ multiple arrays and Strings

7) Dynamic memory location for array and structures

8) Functions

9) Memory management

10) File handling

11) Pre-processors

12) Pointers

13) Error handling

14) Inclusion of a c file within one another

<u>Design of the project:-</u>

The project consists of 5 C language files, namely:

1. main_screen.c (author: Nipun Mittal NBTG14450)
2. login.c (author: Aviral Jain ECN14068)
3. journal.c (author: Anshika Kamboj EMP61884)
4. slam_home.c (author: Nipun Mittal NBTG14450)
5. todo.c (author: Aviral Jain ECN14068)
   using gcc main_screen.c will be saved as an executable file namely
   UrBook.exe
   (command to be used 'gcc –o UrBook main_screen.c' by having installed gcc
   in windows or pre-installed/installed version in linux based systems and
   using gcc in command prompt or terminal by opening them in the folder
   containing all the files)
   NOTE: all 5 files should be together in the same folder!!

Main Screen:

Here the user is first redirected to login and on successful login the user comes back to this screen where he is made available with a menu and welcome heading. The menu contains the list of features offered by the application (daily journal, slam book, to-do list) and the codes to be used to access each of the functions. The user enters the code which is stored as integer and the functions are accessed using an array of pointers to functions. Each function of the application when exited returns the control back to main screen, exiting from which stops the application with press of enter in the end if executable file is run.

Login System:

Here the user has been provided with 3 options – Registration, Login, and Updation of credentials. When the user opens the Application for the first time, he/she is supposed to register and create credentials for accessing the application. After successful registration, they enter the login area, where they can enter the credentials and start using the application. The 3rd option for updation can be used if the user want to change their username and password for security reasons.

Journal:

Daily journal and secret diary that allows user to access, edit or delete their journal entries just with a click. The user is given a choice if they want to create new journal / access previously saved journal / to delete any existing journal / exit journal tab. If entered 'n' the user chooses to write journal for a new day. A file is created and data entered by user is saved in the file .This file can further be viewed, edited or deleted accordingly. If entered 'o' the user chooses to access saved file where they are further given a choice if they want to edit file. The existing file is viewed by the user and appended data is saved to the file (if any). If entered 'd' the user chooses to delete an existing file. The file having same name as entered date is deleted but the file name is kept safe in the list of files as a backup. If entered 'c' the user chooses to exit journal and return to home tab. The user returns to HOME tab.

Slam Book:

Slam book section makes it possible for the user to keep safe the information of the people they know, may they be family or friends. On choosing the slam book section the user is presented with a menu offering to select option of either creating an entry in their slam book, view an entry, edit and entry or to exit to main screen back. If the entry is to be created the use is presented and asked to fill in the option fields of the slam book like Name, Birthdate, Phone details, emails etc. on entering these 3 binary files come into existence, one containing a structure which has stored all the details user just entered, and file to keep note of the total number of entries along with the entry no of last entry and lastly a file which can be used to quick view all the saved entries together which contains a union in a binary file. If the user chooses to view

entry, then they can either choose to directly view their last saved entry for convenience or they can choose for a specific entry by viewing the quick view list as mentioned before. Using this quick view user can now select the entry to be viewed in detail. For this entries linked between these binary files are read and displayed by seeking and reading-storing. If the user chooses to edit the entry, like viewing there is provision to instantly edit the last saved entry which might prove helpful to instantly correct any error made while creating entry. User can also choose a specific entry by referring to the quick list. For edit purposes when the details are fetched from the user, the unchanged entries are copied into another file as it is by breaking them in 3 parts unchanged entries before change and after change by position and the changed entry. Then the old file is removed and the current file is renamed to function ahead smoothly. If the user wishes to return they can return to main screen by choosing appropriate code from menu provided

Instant To-Do list:

Often when we are using an application, we tend to have the need of getting an instant to-do list to jot something down quickly, be it a task, or any small info that is to be written immediately. This to-do list server that particular purpose. User can see their current to do list, create a new task or delete a task. User is presented with option to add a task, view the tasks at hand, rule out the tasks completed by them and return to main screen.

Output Screenshots:

```
Q:\CODING\UrBook\UrBook>gcc -o UrBook main_screen.c

Q:\CODING\UrBook\UrBook>.\urbook
Please login/sign up to verify identity and access your UrBook!!
1. Register (For First Time Users Only)
2. Login
3. Update your Credentials
Enter your choice:1
Welcome to UrBook. Please choose a username and password as credentials for system login.
Ensure the username is no more than 30 characters long.
Ensure your password is at least 8 characters long and contains lowercase, uppercase, numerical and special character values.

Enter Username:
nbtg_nipun

Enter Password:
12345

Registration Successful!

Please Enter your login credentials below

Username:
nbtg_nipun

Password:
12345

Successful Login


**************************************************
          Welcome to UrBook Homepage

**************************************************
Please refer to the code and functionality table below as per convenience
Code    Functionality
1.      Access your daily journal
2.      Access your slam book
3.      Access your to-do list
4.      Exit from application

Enter the code:
```

```
**************************************************
            Welcome to UrBook Homepage

**************************************************
Please refer to the code and functionality table below as per convenience
Code     Functionality
 1.      Access your daily journal
 2.      Access your slam book
 3.      Access your to-do list
 4.      Exit from application

Enter the code: 1

 enter 'o' to access saved journal,'n' to create journal for a fresh day ,'d' to delete  any saved journal and 'c' to exit journal
n

 Enter todays date :

 date format : (for 22 march 2019 enter 22 as date ,march as month and 2019 as year:

  date  :
22
  month  :
march
  year  :
 2019

 how was  ur day:
it was a good day but we had a test

 your data has been successfully saved

 *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *
```

```
 enter 'o' to access saved journal,'n' to create journal for a fresh day ,'d' to delete  any saved journal and 'c' to exit journal
n

 Enter todays date :

 date format : (for 22 march 2019 enter 22 as date ,march as month and 2019 as year:

  date  :
22
  month  :
march
  year  :
 2020

 how was  ur day:
it was a bad day fell off the cycle

 your data has been successfully saved

 *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

 enter 'o' to access saved journal,'n' to create journal for a fresh day ,'d' to delete  any saved journal and 'c' to exit journal
o

 enter the date of the journal that is to be viewed

 date format : (for 22 march 2019 enter 22 as date ,march as month and 2019 as year:

  date  :
22
  month  :
march
  year  :
 2019


 journal data :


it was a good day but we had a test

 enter e to edit data else press enter key to close :
e
```

```
 journal data :


it was a good day but we had a test

 enter e to edit data else press enter key to close :
e

 edit here ....    ;)
i did well at the test

 edited data saved successfully :)

 *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

 enter 'o' to access saved journal,'n' to create journal for a fresh day ,'d' to delete  any saved journal and 'c' to exit journal
d

 enter the date of the file that is to be deleted

 date format : (for 22 march 2019 enter 22 as date ,march as month and 2019 as year:

  date  :
22
  month  :
march
  year  :
 2020

The file has been successfully deleted

 enter 'o' to access saved journal,'n' to create journal for a fresh day ,'d' to delete  any saved journal and 'c' to exit journal
c


xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
          Welcome to UrBook Homepage

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
Please refer to the code and functionality table below as per convenience
Code    Functionality
 1.       Access your daily journal
 2.       Access your slam book
 3.       Access your to-do list
 4.       Exit from application

Enter the code:
```

```
***This is Slam Book Section***
Please refer to the menu below to continue:
Code    Operation
 1.      Add Entry to Slam Book
 2.      View Entry in Slam Book
 3.      Edit Entry in Slam Book
 4.      Exit to Main Menu
Code: 1

***This is Slam Book Entry Page***
Please fill the details below about the person to make entries:
First Name: Nipun
Last Name: Mittal
Birthdate (DD-MM-YYY): 23-02-2003
Age: 18
Gender(M/F/O): M
Email: nbtg14450@mail.jiit.ac.in
Phone Number: 9871842988
Time been friends for: 18
Page Entry made Succesfully !


***This is Slam Book Section***
Please refer to the menu below to continue:
Code    Operation
 1.      Add Entry to Slam Book
 2.      View Entry in Slam Book
 3.      Edit Entry in Slam Book
 4.      Exit to Main Menu
Code: 1
```

```
***This is Slam Book Section***
Please refer to the menu below to continue:
Code    Operation
 1.      Add Entry to Slam Book
 2.      View Entry in Slam Book
 3.      Edit Entry in Slam Book
 4.      Exit to Main Menu
Code: 1

***This is Slam Book Entry Page***
Please fill the details below about the person to make entries:
First Name: Anshika
Last Name: Kamboj
Birthdate (DD-MM-YYY): 30-11-2002
Age: 19
Gender(M/F/O): F
Email: kambojanshika30@gmail.com
Phone Number: 8126011327
Time been friends for: 1
Page Entry made Succesfully !


***This is Slam Book Section***
Please refer to the menu below to continue:
Code    Operation
 1.      Add Entry to Slam Book
 2.      View Entry in Slam Book
 3.      Edit Entry in Slam Book
 4.      Exit to Main Menu
Code: 1

***This is Slam Book Entry Page***
Please fill the details below about the person to make entries:
First Name: Aviral Jain
Last Name:
Birthdate (DD-MM-YYY): 02-04-2003
Age: 18
Gender(M/F/O): M
Email: aviraljain0204@gmail.com
Phone Number: 1234598765
Time been friends for: 1
Page Entry made Succesfully !
```

```
***This is Slam Book Section***
Please refer to the menu below to continue:
Code    Operation
 1.      Add Entry to Slam Book
 2.      View Entry in Slam Book
 3.      Edit Entry in Slam Book
 4.      Exit to Main Menu
Code: 2

***This is Slam Book View Page***
Please select a function to execute from below:
Code    Function
 1.      View Last Saved Entry
 2.      View Entry List
 3.      Return to Slam Book Homepage
Code: 1

**Last Entry**
First Name: Aviral Jain Last Name:
Birthdate: 02-04-2003
Age: 18
Gender: M
Email: aviraljain0204@gmail.com
Phone Number: 1234598765
Time been friends for: 1


***This is Slam Book View Page***
Please select a function to execute from below:
Code    Function
 1.      View Last Saved Entry
 2.      View Entry List
 3.      Return to Slam Book Homepage
Code: 3

Now exiting from slam book view section!!
...
....


***This is Slam Book Section***
Please refer to the menu below to continue:
Code    Operation
 1.      Add Entry to Slam Book
 2.      View Entry in Slam Book
 3.      Edit Entry in Slam Book
 4.      Exit to Main Menu
Code: 3
```

```
***This is Slam Book Section***
Please refer to the menu below to continue:
Code    Operation
 1.     Add Entry to Slam Book
 2.     View Entry in Slam Book
 3.     Edit Entry in Slam Book
 4.     Exit to Main Menu
Code: 3

***This is Slam Book Edit Page***
Please select a function to execute from below:
Code    Function
 1.     Edit Last Saved Entry
 2.     Edit Entry List
 3.     Return to Slam Book Homepage
Code: 1

**Last Entry**
First Name: Aviral Jain Last Name:
Birthdate: 02-04-2003
Age: 18
Gender: M
Email: aviraljain0204@gmail.com
Phone Number: 1234598765
Time been friends for: 1


Please enter the new details of the above entry!!
First Name: Aviral
Last Name: Jain
Birthdate: 02-04-2003
Age: 18
Gender(M/F/O): M
Email: aviraljain0204@gmail.com
Phone Number: 1234598765
Time been friends for: 1

Your Last Entry has been updated!!

***This is Slam Book Edit Page***
Please select a function to execute from below:
Code    Function
 1.     Edit Last Saved Entry
 2.     Edit Entry List
 3.     Return to Slam Book Homepage
Code: 2
```

```
***You are now viewing the list of entries made so far***
Entry No        Name of Person
  1.            Nipun Mittal
  2.            Anshika Kamboj
  3.            Aviral Jain
Enter the entry no you wish to edit or enter 0 to go back: 0

***This is Slam Book Edit Page***
Please select a function to execute from below:
Code    Function
 1.     Edit Last Saved Entry
 2.     Edit Entry List
 3.     Return to Slam Book Homepage
Code: 3

Now exiting from slam book edit section!!
...
....


***This is Slam Book Section***
Please refer to the menu below to continue:
Code    Operation
 1.     Add Entry to Slam Book
 2.     View Entry in Slam Book
 3.     Edit Entry in Slam Book
 4.     Exit to Main Menu
Code: 2

***This is Slam Book View Page***
Please select a function to execute from below:
Code    Function
 1.     View Last Saved Entry
 2.     View Entry List
 3.     Return to Slam Book Homepage
Code: 2

***You are now viewing the list of entries made so far***
Entry No        Name of Person
  1.            Nipun Mittal
  2.            Anshika Kamboj
  3.            Aviral Jain
Enter the entry no if you wish to open any else enter 0 to go back: 1
```

```
***You are now viewing the list of entries made so far***
Entry No        Name of Person
  1.            Nipun Mittal
  2.            Anshika Kamboj
  3.            Aviral Jain
Enter the entry no if you wish to open any else enter 0 to go back: 1

**Chosen Entry**
Entry No: 1
First Name: Nipun        Last Name: Mittal
Birthdate: 23-02-2003
Age: 18
Gender: M
Email: nbtg14450@mail.jiit.ac.in
Phone Number: 9871842988
Time been friends for: 18


***You are now viewing the list of entries made so far***
Entry No        Name of Person
  1.            Nipun Mittal
  2.            Anshika Kamboj
  3.            Aviral Jain
Enter the entry no if you wish to open any else enter 0 to go back: 2

**Chosen Entry**
Entry No: 2
First Name: Anshika      Last Name: Kamboj
Birthdate: 30-11-2002
Age: 19
Gender: F
Email: kambojanshika30@gmail.com
Phone Number: 8126011327
Time been friends for: 1


***You are now viewing the list of entries made so far***
Entry No        Name of Person
  1.            Nipun Mittal
  2.            Anshika Kamboj
  3.            Aviral Jain
Enter the entry no if you wish to open any else enter 0 to go back: 3
```

```
***You are now viewing the list of entries made so far***
Entry No        Name of Person
  1.            Nipun Mittal
  2.            Anshika Kamboj
  3.            Aviral Jain
Enter the entry no if you wish to open any else enter 0 to go back: 3

**Chosen Entry**
Entry No: 3
First Name: Aviral       Last Name: Jain
Birthdate: 02-04-2003
Age: 18
Gender: M
Email: aviraljain0204@gmail.com
Phone Number: 1234598765
Time been friends for: 1


***You are now viewing the list of entries made so far***
Entry No        Name of Person
  1.            Nipun Mittal
  2.            Anshika Kamboj
  3.            Aviral Jain
Enter the entry no if you wish to open any else enter 0 to go back: 0

***This is Slam Book View Page***
Please select a function to execute from below:
Code    Function
1.      View Last Saved Entry
2.      View Entry List
3.      Return to Slam Book Homepage
Code: 3

Now exiting from slam book view section!!
...
....


***This is Slam Book Section***
Please refer to the menu below to continue:
Code    Operation
1.      Add Entry to Slam Book
2.      View Entry in Slam Book
3.      Edit Entry in Slam Book
4.      Exit to Main Menu
Code: 4

Now exiting from slam book section!!
```

```
***This is Slam Book Section***
Please refer to the menu below to continue:
Code    Operation
 1.      Add Entry to Slam Book
 2.      View Entry in Slam Book
 3.      Edit Entry in Slam Book
 4.      Exit to Main Menu
Code: 4

Now exiting from slam book section!!
...
....



****************************************************
          Welcome to UrBook Homepage

****************************************************
Please refer to the code and functionality table below as per convenience
Code    Functionality
 1.      Access your daily journal
 2.      Access your slam book
 3.      Access your to-do list
 4.      Exit from application

Enter the code: 3
Instant To-Do List
1. To see your ToDo list
2. To create new ToDo
3. To delete your ToDo
4. Exit
Enter your choice:      1


Empty ToDo




1. To see your ToDo list
2. To create new ToDo
3. To delete your ToDo
4. Exit
Enter your choice:      2
```

```
1. To see your ToDo list
2. To create new ToDo
3. To delete your ToDo
4. Exit
Enter your choice:      2

Want to add new ToDo ?? Press 'y' for Yes and 'n' for No  :-)
               y

Type it.....
buy eggs

Want to add new ToDo ?? Press 'y' for Yes and 'n' for No  :-)
               y

Type it.....
buy stationary

Want to add new ToDo ?? Press 'y' for Yes and 'n' for No  :-)
               y

Type it.....
complete pending work

Want to add new ToDo ?? Press 'y' for Yes and 'n' for No  :-)
               y

Type it.....
go to friend's house

Want to add new ToDo ?? Press 'y' for Yes and 'n' for No  :-)
               n
1. To see your ToDo list
2. To create new ToDo
3. To delete your ToDo
4. Exit
Enter your choice:      1
1.)buy eggs
2.)buy stationary
3.)complete pending work
4.)go to friend's house
```

```
Want to add new ToDo ?? Press 'y' for Yes and 'n' for No  :-)
             n
1. To see your ToDo list
2. To create new ToDo
3. To delete your ToDo
4. Exit
Enter your choice:      1
1.)buy eggs
2.)buy stationary
3.)complete pending work
4.)go to friend's house


1. To see your ToDo list
2. To create new ToDo
3. To delete your ToDo
4. Exit
Enter your choice:      3

Enter the ToDo's number that you want to remove.
             2
1. To see your ToDo list
2. To create new ToDo
3. To delete your ToDo
4. Exit
Enter your choice:      1
1.)buy eggs
2.)complete pending work
3.)go to friend's house
```

```
1. To see your ToDo list
2. To create new ToDo
3. To delete your ToDo
4. Exit
Enter your choice:      1
1.)buy eggs
2.)complete pending work
3.)go to friend's house


1. To see your ToDo list
2. To create new ToDo
3. To delete your ToDo
4. Exit
Enter your choice:      3

Enter the ToDo's number that you want to remove.
             3
1. To see your ToDo list
2. To create new ToDo
3. To delete your ToDo
4. Exit
Enter your choice:      4
```

```
*******************************************
        Welcome to UrBook Homepage

*******************************************
Please refer to the code and functionality table below as per convenience
Code     Functionality
 1.       Access your daily journal
 2.       Access your slam book
 3.       Access your to-do list
 4.       Exit from application

Enter the code: 4
Thank You for using UrBook!!
Your data is safely stored!!
Now exiting the application...
...
...
```

Files after execution of the code!!

22march2019	18-12-2021 10:32	Text Document	1 KB
journal.c	18-12-2021 04:21	Turbo C++	7 KB
last_saved.dat	18-12-2021 10:37	DAT File	1 KB
login.c	18-12-2021 04:46	Turbo C++	4 KB
login	18-12-2021 10:27	Text Document	1 KB
main_screen.c	18-12-2021 03:42	Turbo C++	2 KB
saved journals	18-12-2021 10:31	Text Document	1 KB
slam_home.c	18-12-2021 04:20	Turbo C++	17 KB
slam_list.dat	18-12-2021 10:38	DAT File	1 KB
slam_records.dat	18-12-2021 10:38	DAT File	4 KB
todo.c	18-12-2021 11:03	Turbo C++	4 KB
UrBook	18-12-2021 11:03	Application	403 KB

References:-

1. Geeks for Geeks - Documentation for C
2. Stack Overflow for debugging and exploring new concept utilization
3. Pointers in C by Yaswant Kanitkar
4. https://www.codingunit.com/c-tutorial-binary-file-io
5. Class Slides
6. https://www.tutorialspoint.com/cprogramming/c_preprocessors.htm
7. https://stackoverflow.com/questions/21260735/how-to-invoke-function-from-external-c-file-in-c
8. Quora for some doubts regarding possible function existing in C
9. Help and Guidance from our teacher in case of doubts leading to stagnation for 2-3 days