BCSL-021 C Language Programming Solved Assignment

Q1. Write an interactive C program which prompts the user with the following options on the opening menu:

1) General Information of the Learner Support Centre(LSC)
2) Programmes activated in the study center
3) Scheduling of theory/practical sessions for BCA-MCA programmes
4) Academic Councillor's Details
5) Schedules for Assignment submissions for various programmes
6) Quit

Enter your choice:

If an "1" is entered, prompt the user to enter the study center code and know the general details about the study like name of the learner support center(LSC), name of the regional center, name of the study center coordinator, programme in-charge details etc. If "2" is entered, it should give the details of all the programmes that are activated in the LSC. If "3" is entered, it should give the schedules for the theory and practical counseling sessions for BCA and MCA programmes for the current session. If "4" is entered it should display the details of the academic counselors' associated with respective programmes. If "5" is entered it should display the assignment submission schedules for various programmes for the current session activated in that LSC. If the user enters any letters or numbers other than the choice, redisplay the prompt. All output should go to the terminal and all input should come from the keyboard.

Solu.

For better readability refer my GitHub repository : [BCSL 021 Assignment Solution]

Instructions :

Learner Support Desk

Clone the repo using below command

```
git clone git@github.com:Sahil-4/BCSL021-assginment-solution.git
```

Run below command(s) to compile and run the program

```
gcc dataset.c utils.c main.c -o main
./main
```

or

```
 gcc dataset.c utils.c main.c -o main; ./main;
```

Note : Make sure you have gcc compiler installed in your system and you are running the command(s) in the directory where main.c dataset.c utils.h and utils.c are present
You can get all the files from my GitHub Repository.

Problem Statement :
Write an interactive C program which prompts the user with the following options on the opening menu :

1. General Information of the Learner Support Centre(LSC)
2. Programmes activated in the study center
3. Scheduling of theory/practical sessions for BCA-MCA programmes
4. Academic Councillor's Details
5. Schedules for Assignment submissions for various programmes
6. Quit

Enter your choice :

If an "1" is entered, prompt the user to enter the study center code and know the general details about the study like name of the learner support center(LSC), name of

the regional center, name of the study center coordinator, programme in-charge details etc.
If “2” is entered, it should give the details of all the programmes that are activated in the LSC.
If “3” is entered, it should give the schedules for the theory and practical counseling sessions for BCA and MCA programmes for the current session.
If “4” is entered it should display the details of the academic counselors' associated with respective programmes.
If “5” is entered it should display the assignment submission schedules for various programmes for the current session activated in that LSC.
If the user enters any letters or numbers other than the choice, redisplay the prompt.
All output should go to the terminal and all input should come from the keyboard.

Solution Logic :

I have divided the logic mainly into three segments :

1. dataset.c - Here i have added the data related to LSCs, Counseling Schedule, Course Coordinator and Assignment Submission dates

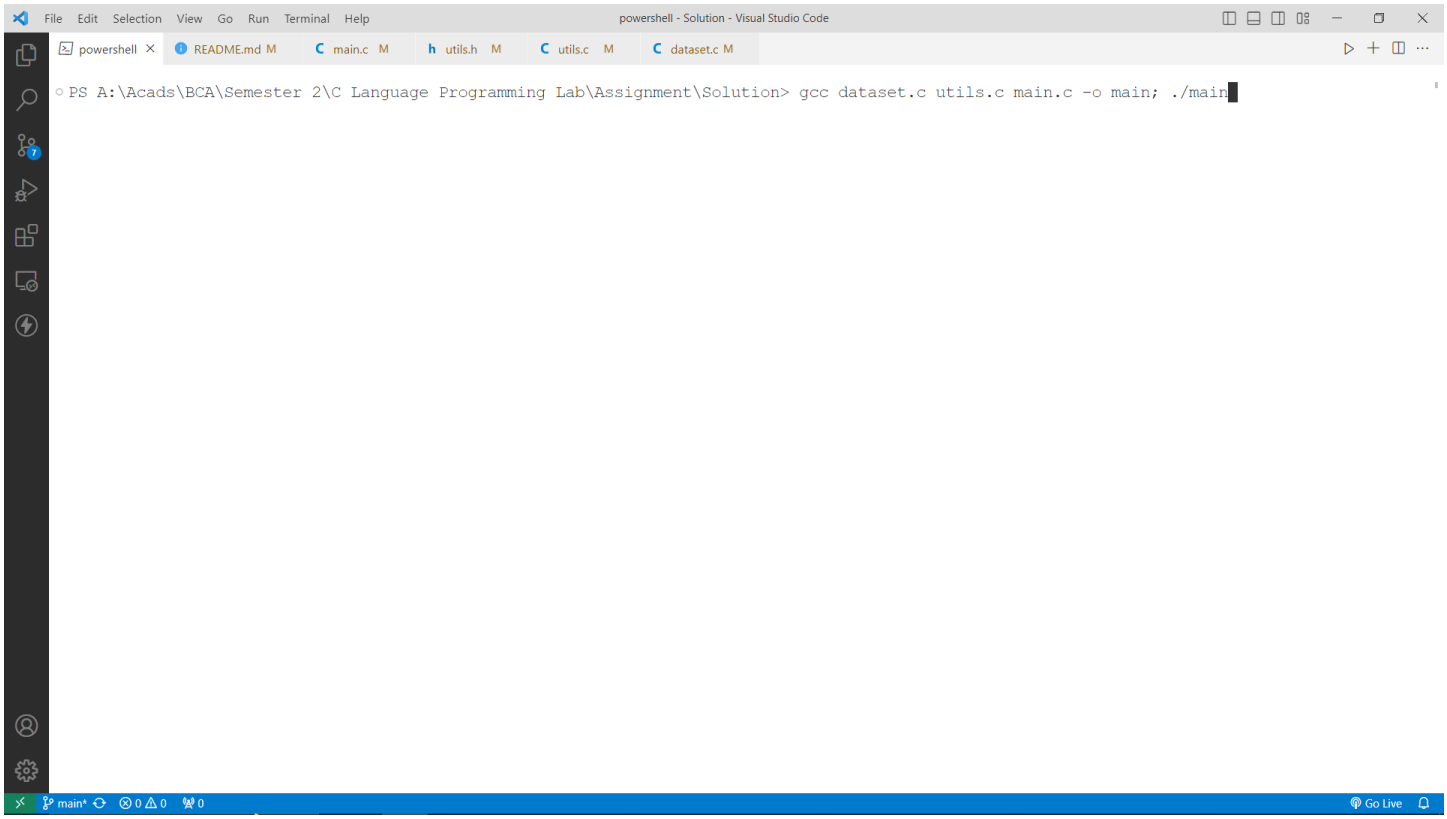
2. utils.c - Utility file is the file where I have defined the operation which I'm using in the main file like displayGeneralInfo, displayActivatedPrograms etc. For this I have also used a header file [Utility Header File](./utils.h) in same file I have define structures also for holding data (which is defined in [dataset](./dataset.c))

3. main.c - Then out main file comes this is the entry point of our program the flow of program will start from here

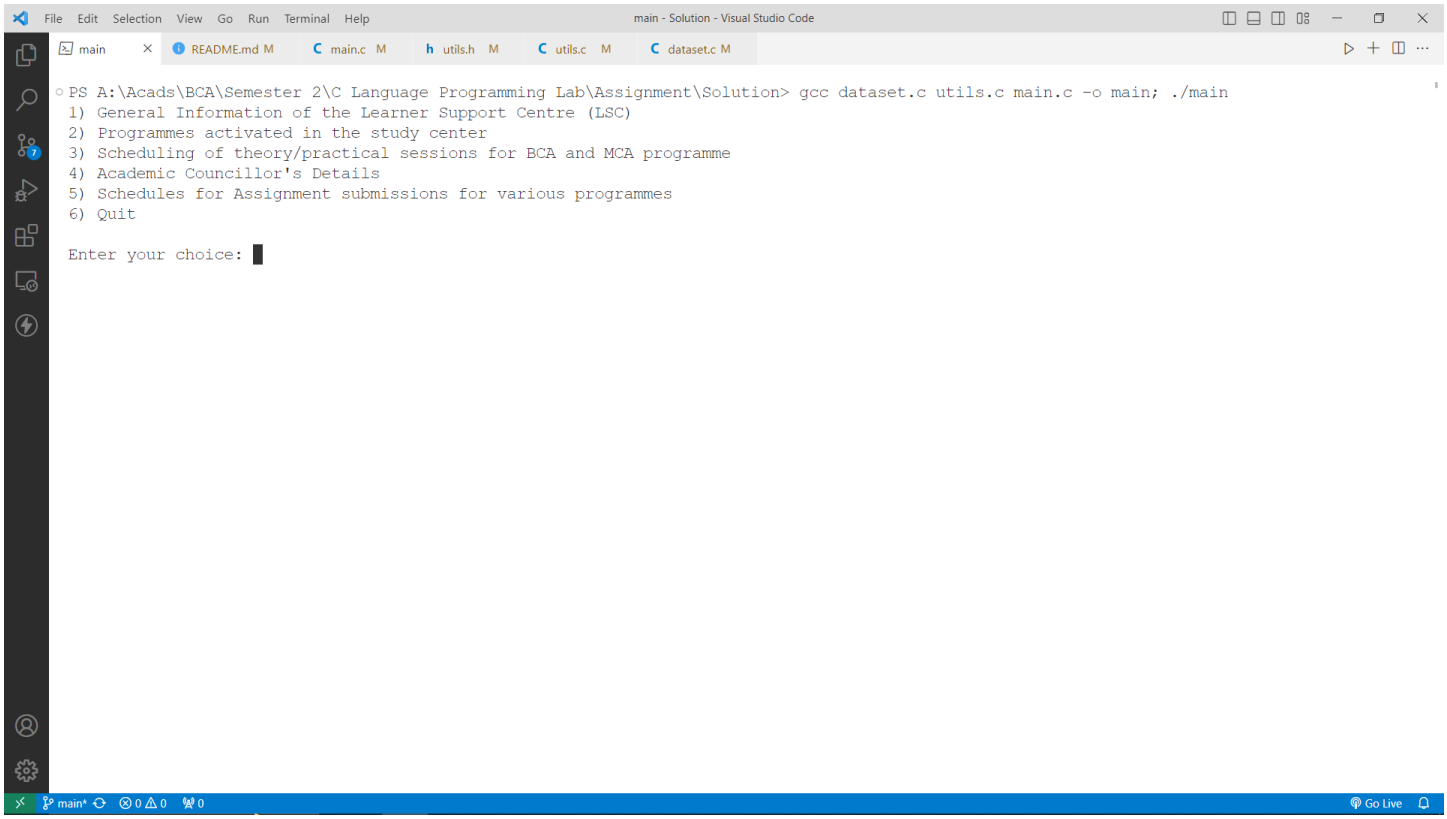
4. Through main.c I have provided the main menu and asked users to input any option. This option I'm handing using a switch case statement. If the user presses 1 Case 1 will get executed and the displayGeneralInfo() function declared in utils.h and defined in utils.c will get executed.

Screenshots of Runtime :

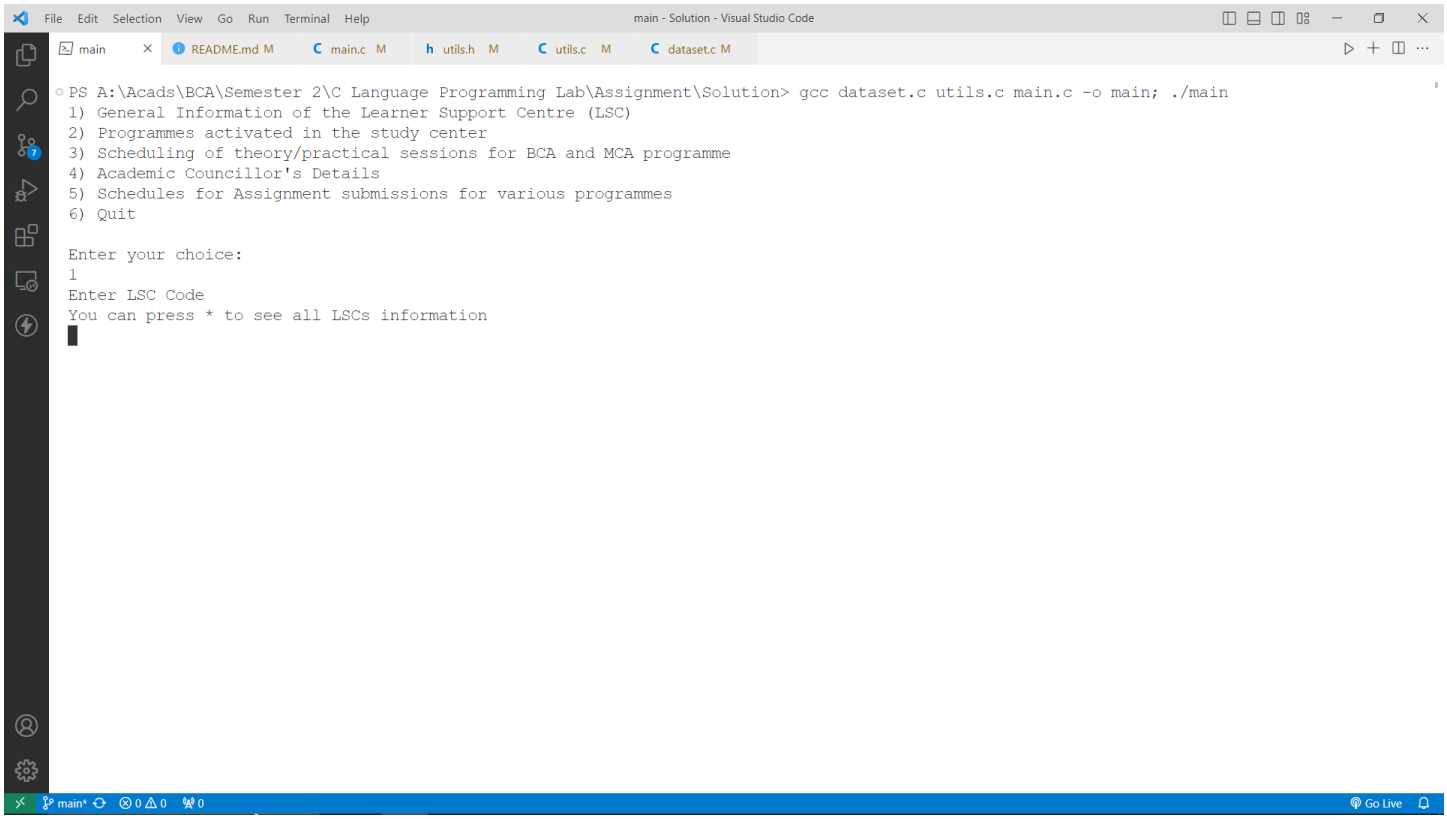
Running the start command to compile and execute program



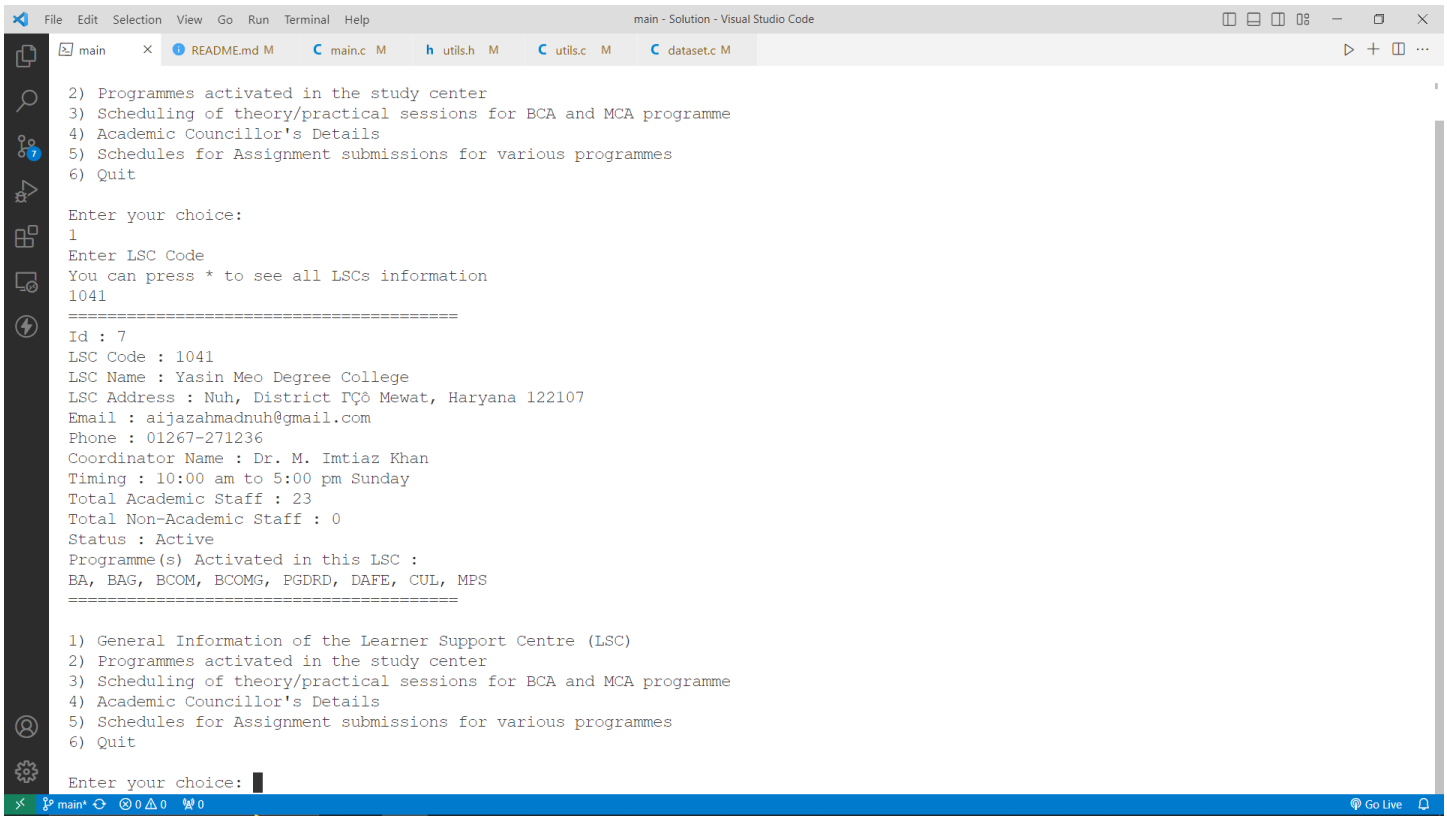
Main menu/interface of program



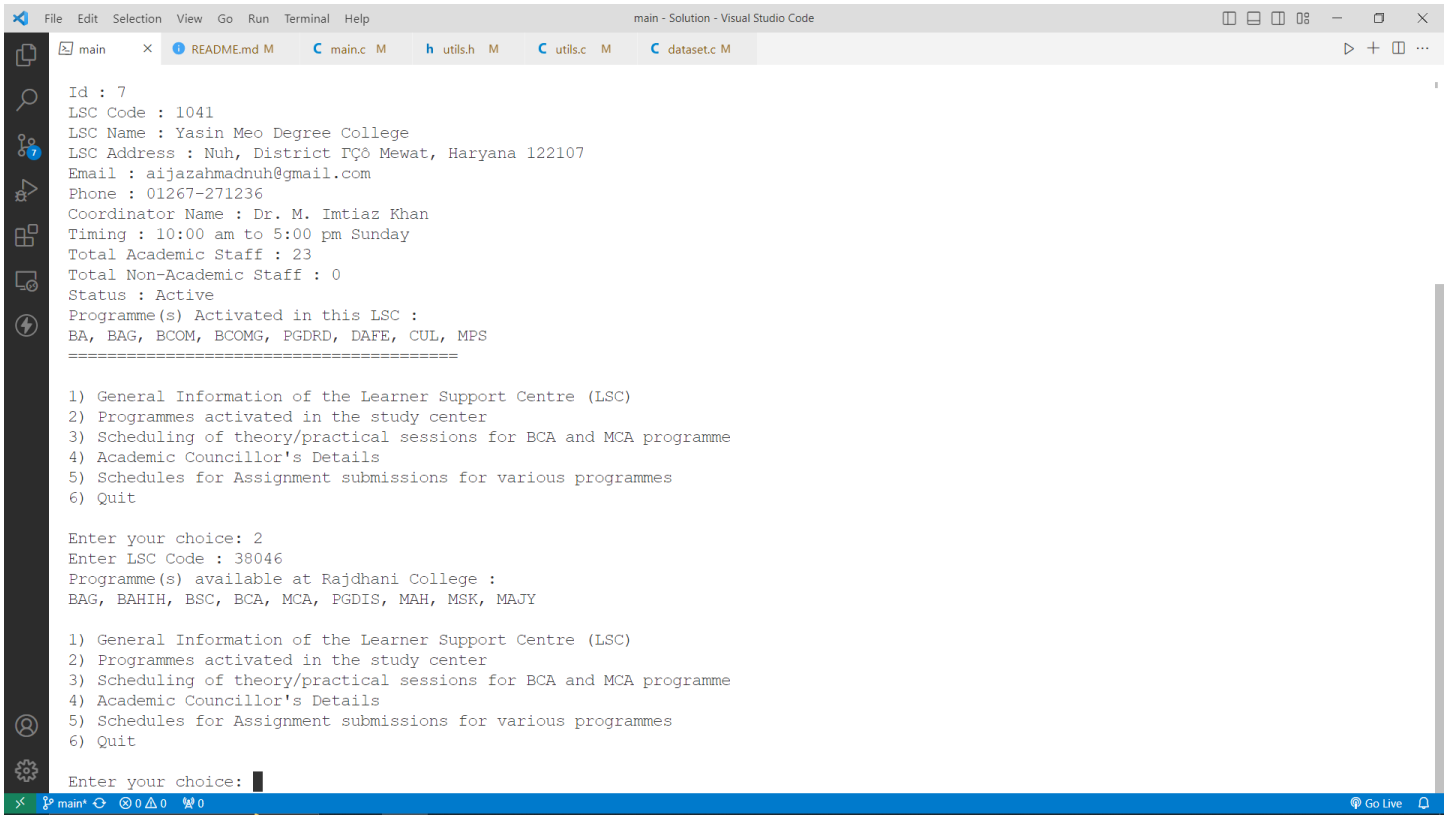
Selected 1 To get LSCs details (Then we have been asked LSC Code or press * to get details of all LSCs)



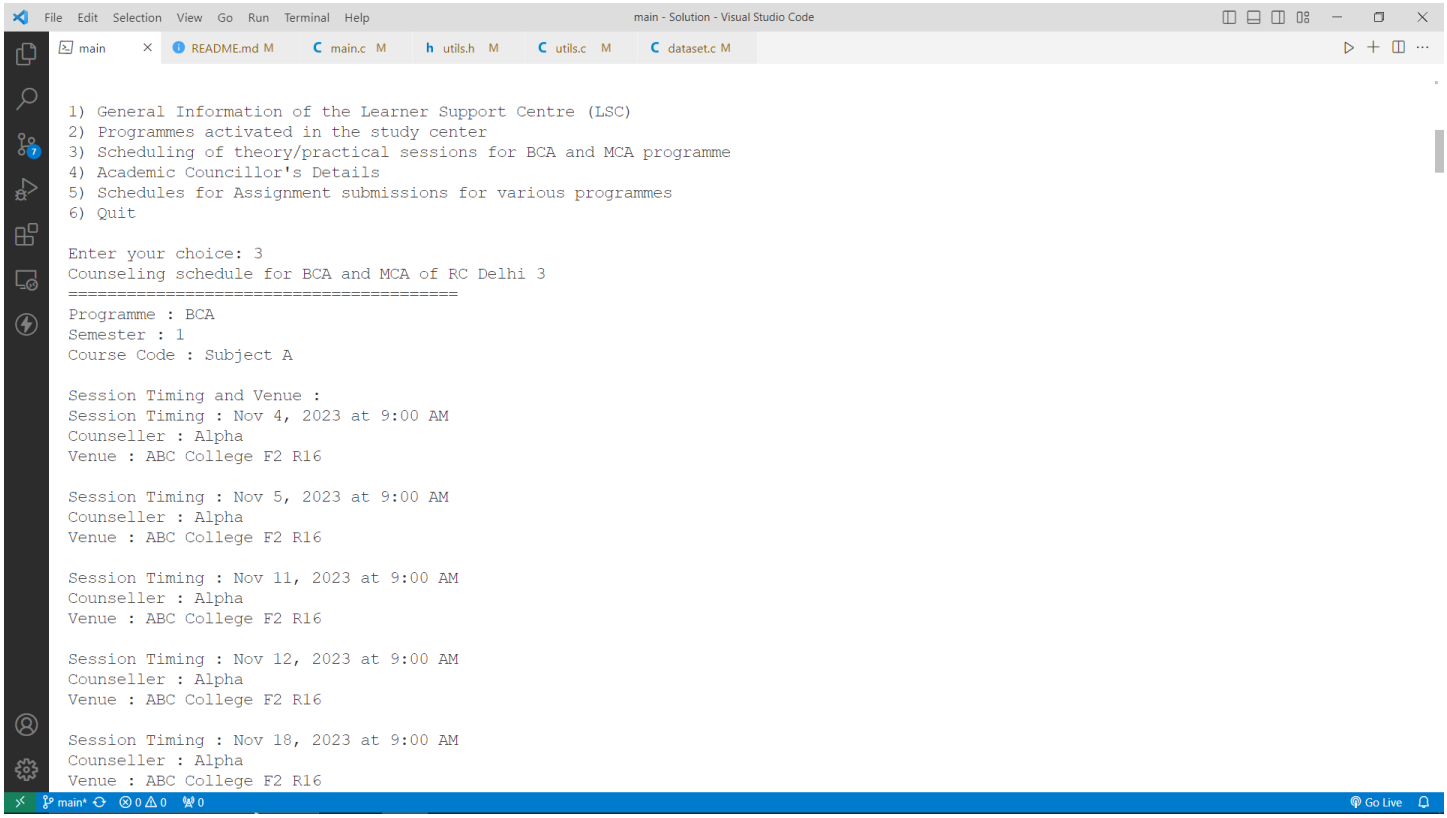
Entered LSC Code 1041 and got the details of this LSC

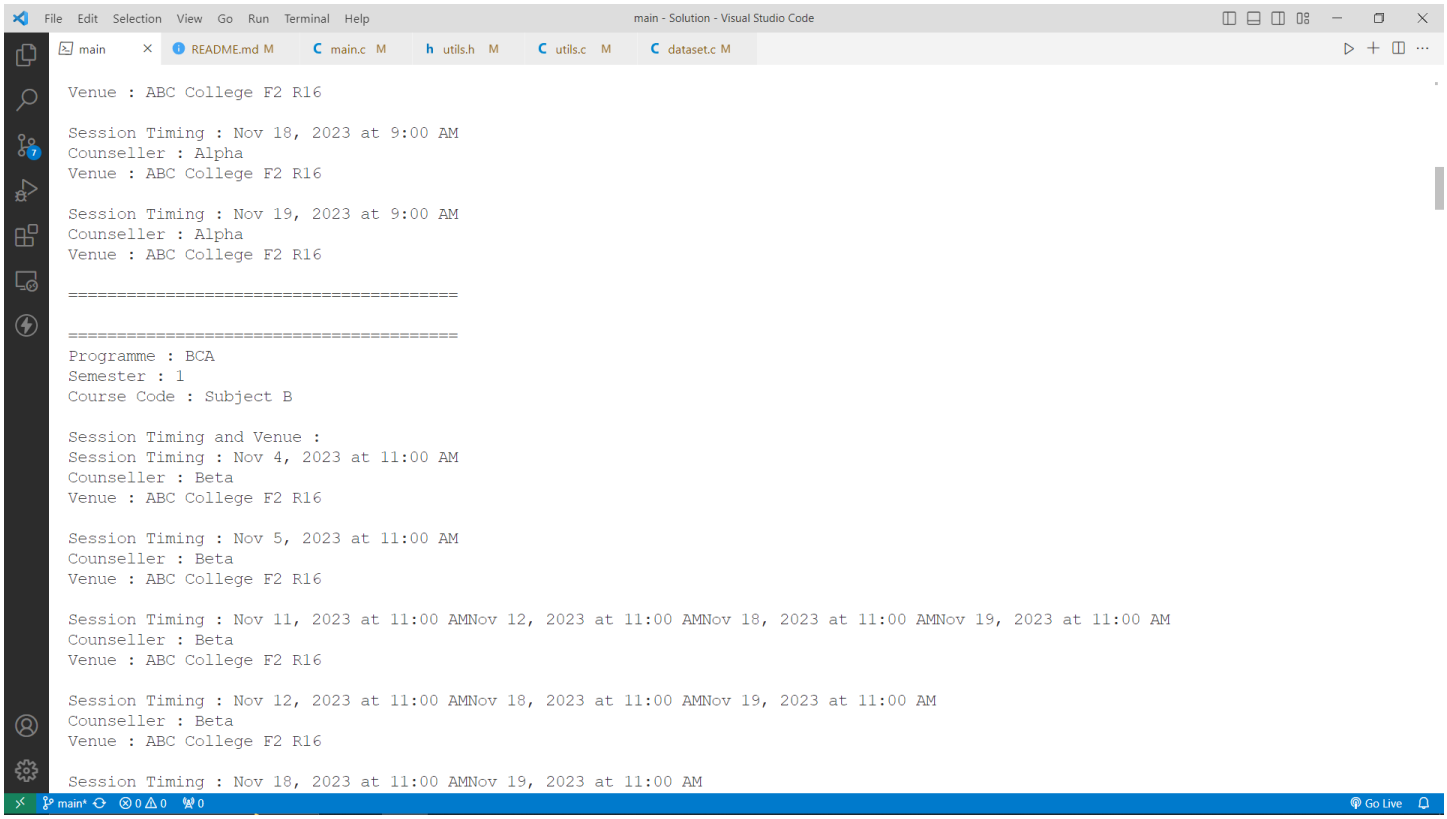


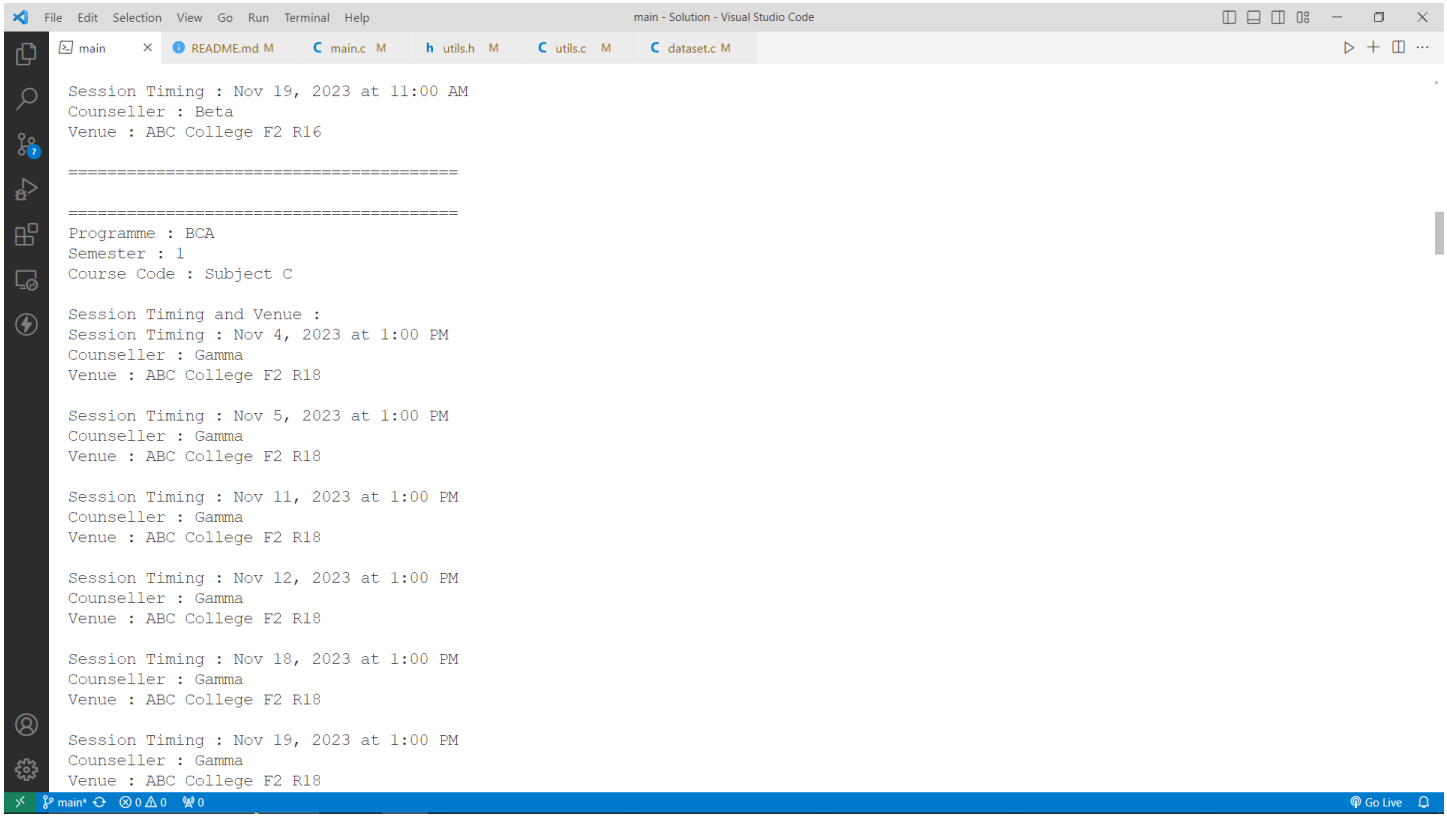
Again we have provided the main menu and being asked to choose from I selected 2 and entered LSC Code 38046 after this i got the programmes activated in this LSC

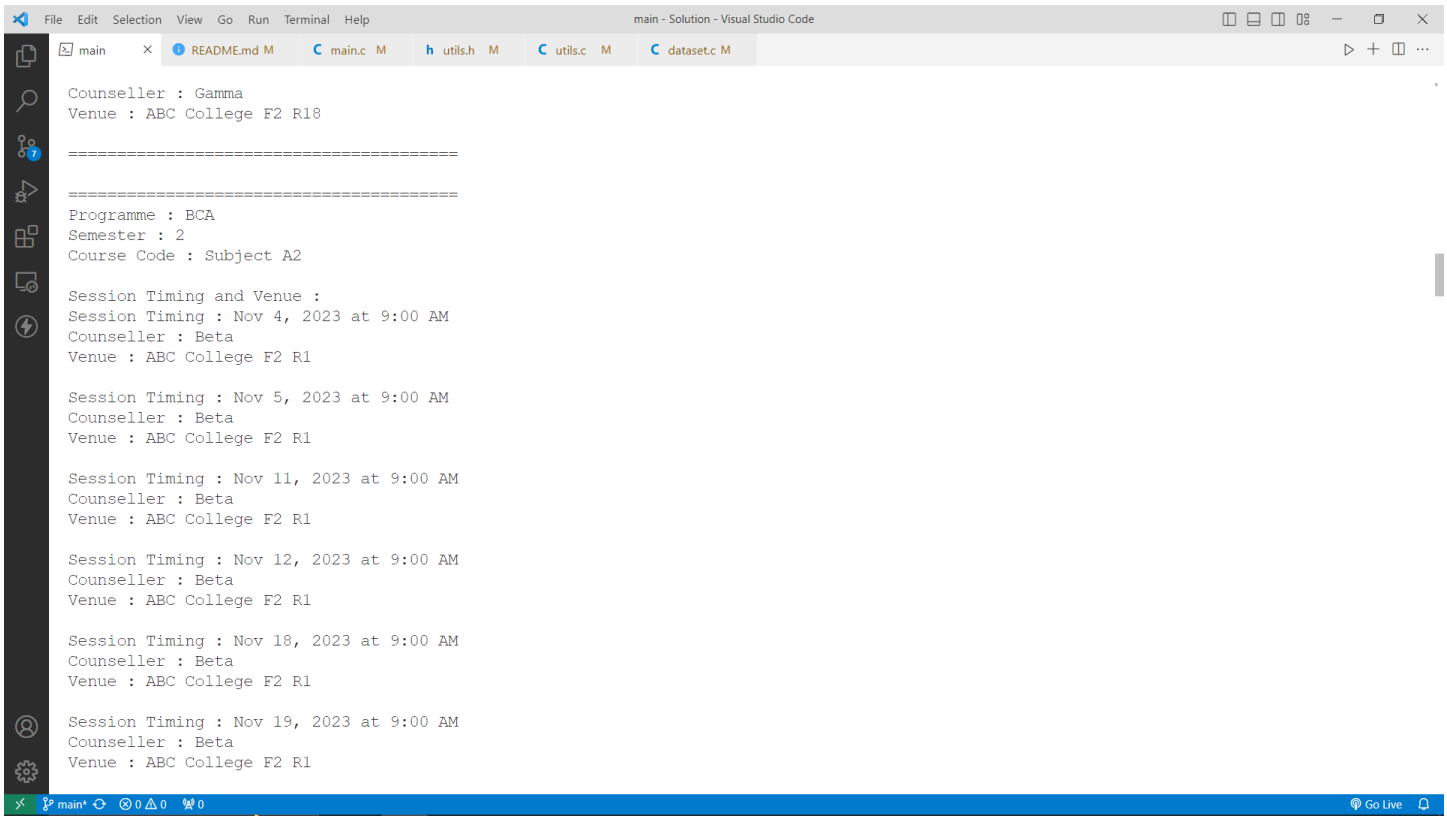


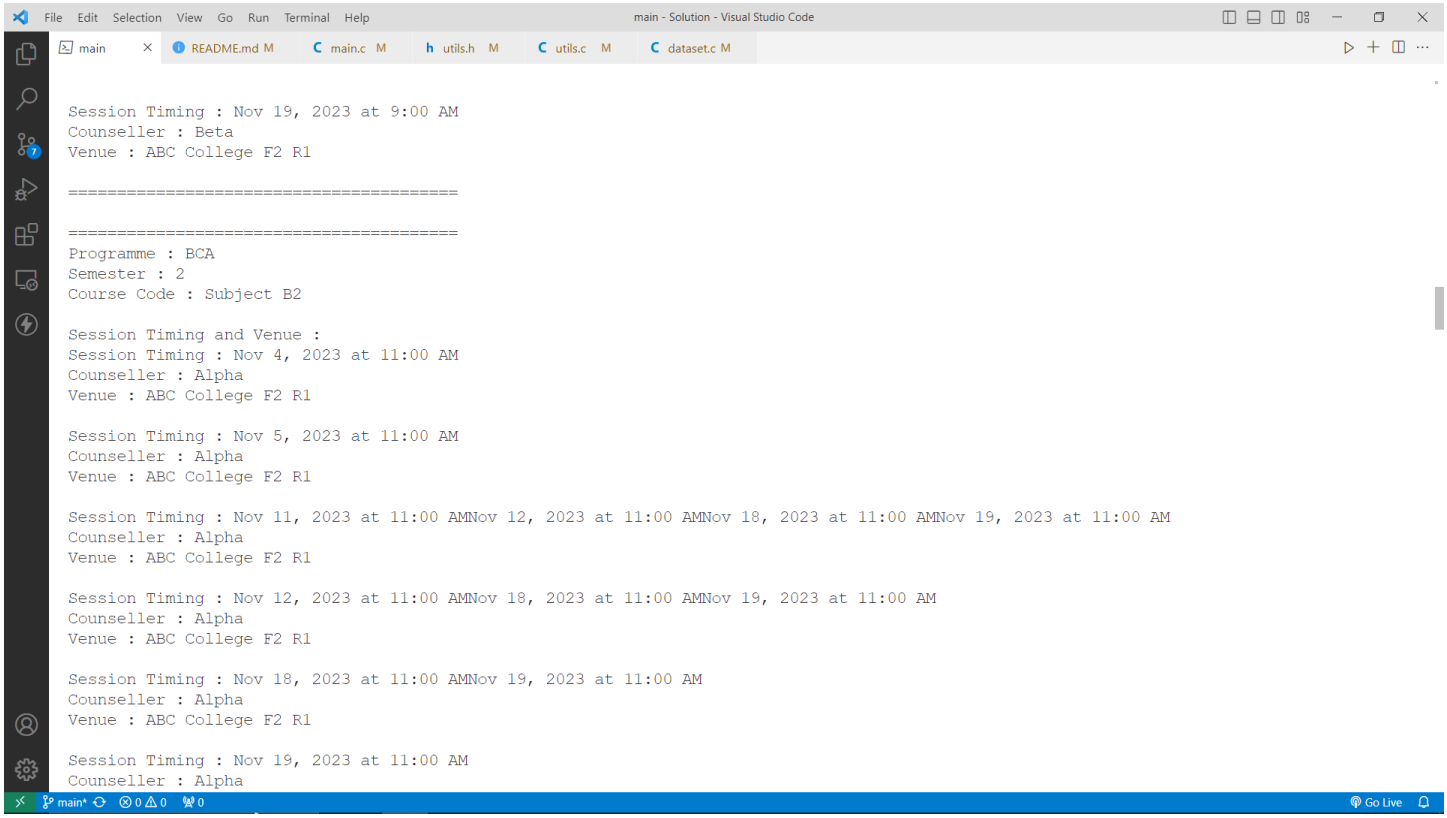
After this I choose 3 in main menu to get details of Theory/Practical Schedule

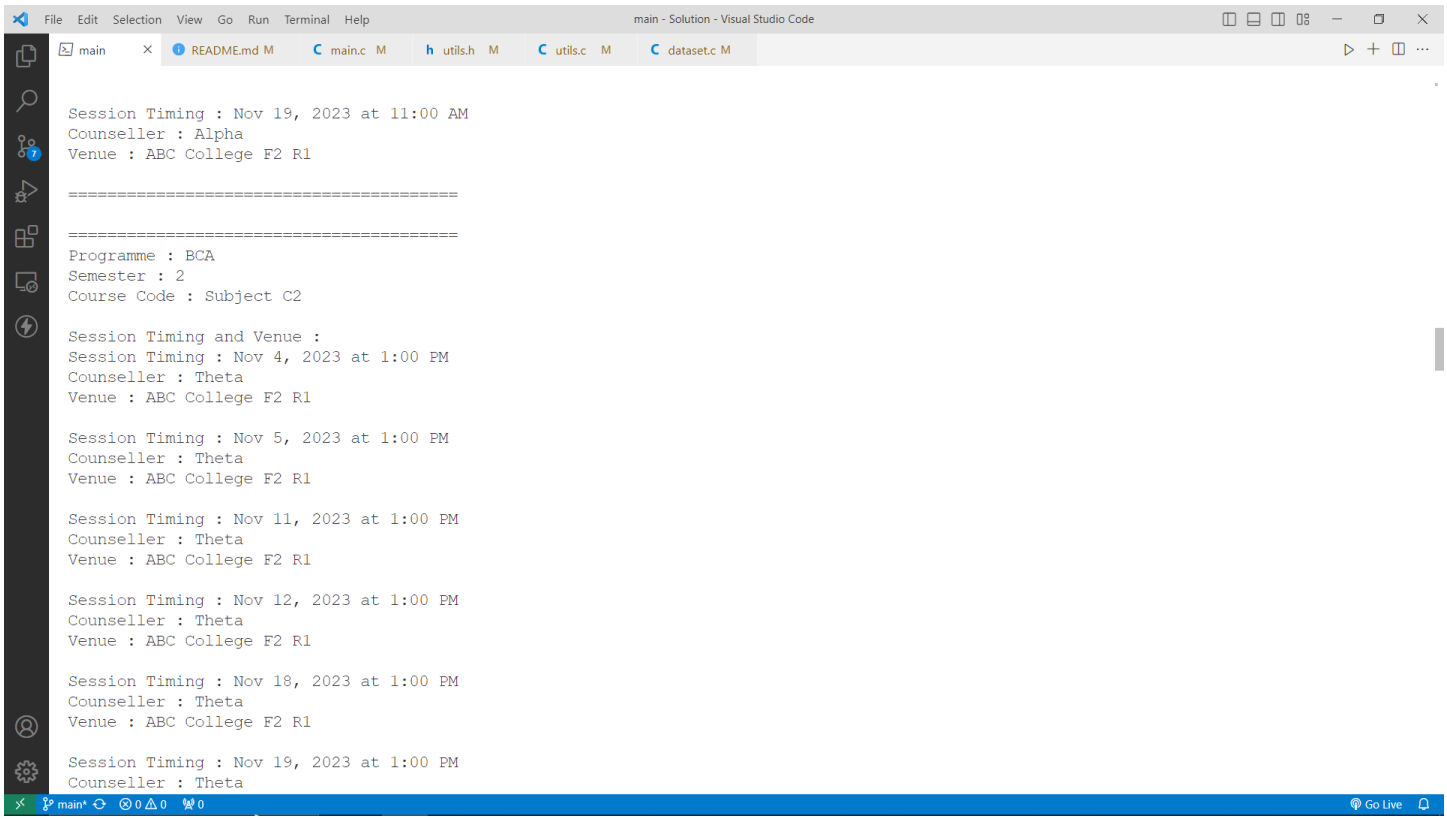


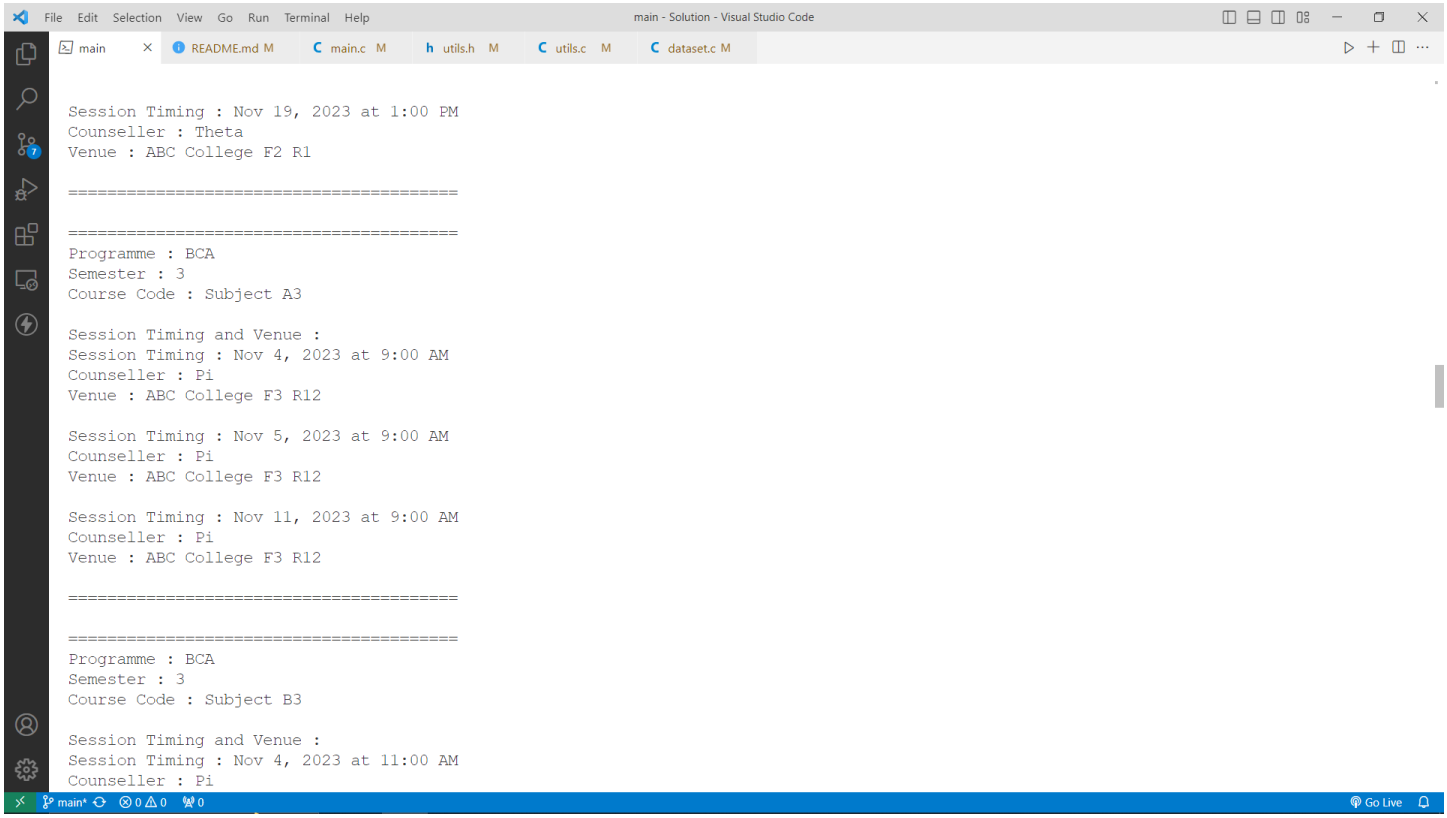


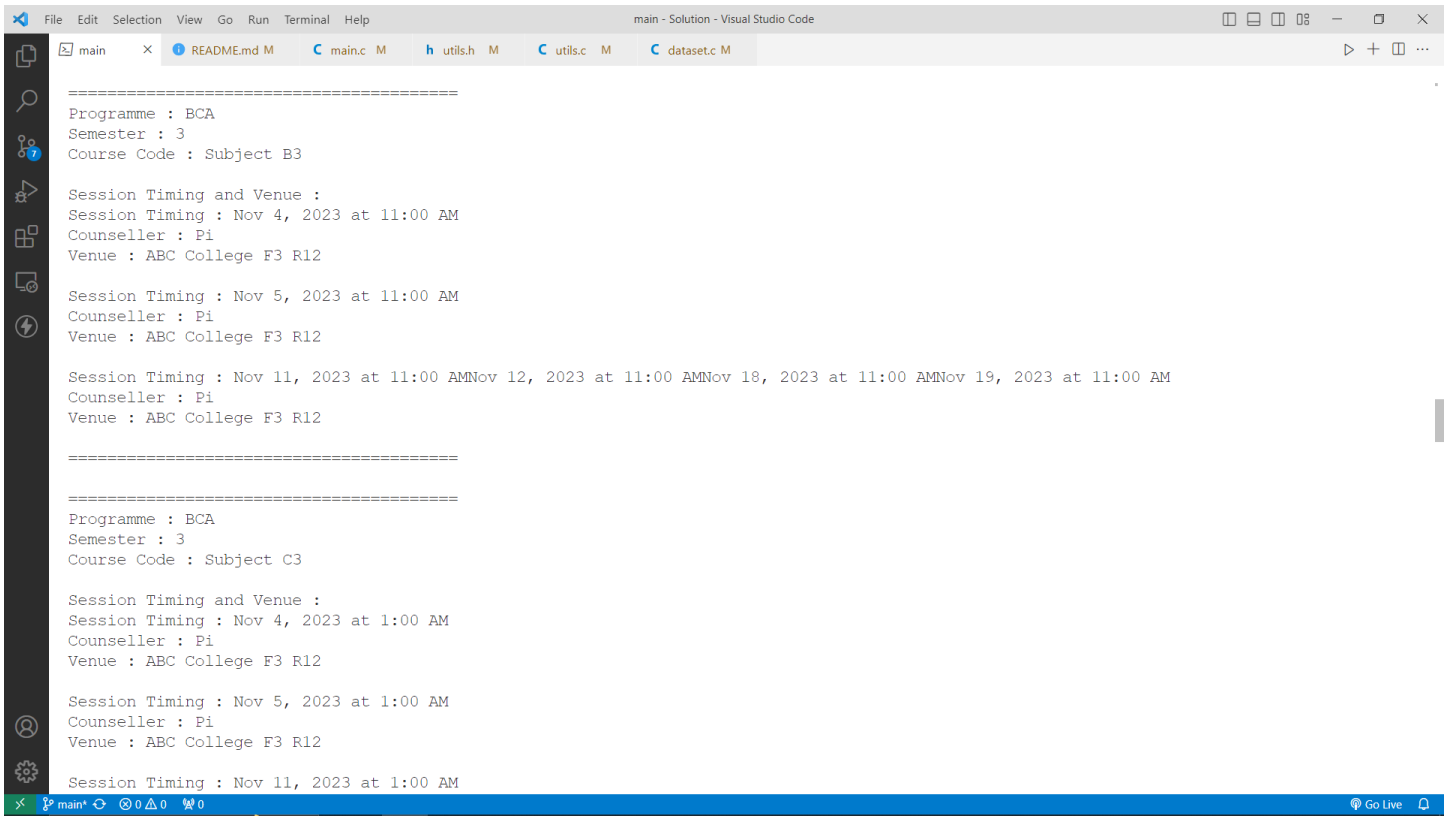

File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
Session Timing : Nov 19, 2023 at 11:00 AM
Counseller : Beta
Venue : ABC College F2 R16
==========
==========
Programme : BCA
Semester : 1
Course Code : Subject C
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
Session Timing : Nov 5, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
Session Timing : Nov 11, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
Session Timing : Nov 12, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
Session Timing : Nov 18, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
Session Timing : Nov 19, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
main*
Go Live


File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
Counseller : Gamma
Venue : ABC College F2 R18
==========
==========
Programme : BCA
Semester : 2
Course Code : Subject A2
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
Session Timing : Nov 5, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
Session Timing : Nov 11, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
Session Timing : Nov 12, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
Session Timing : Nov 18, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
Session Timing : Nov 19, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
main*
Go Live


File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
Session Timing : Nov 19, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
==========
==========
Programme : BCA
Semester : 2
Course Code : Subject B2
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
Session Timing : Nov 5, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
Session Timing : Nov 11, 2023 at 11:00 AMNov 12, 2023 at 11:00 AMNov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
Session Timing : Nov 12, 2023 at 11:00 AMNov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
Session Timing : Nov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
Session Timing : Nov 19, 2023 at 11:00 AM
Counseller : Alpha
main*
Go Live


File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
Session Timing : Nov 19, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
==========
==========
Programme : BCA
Semester : 2
Course Code : Subject C2
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
Session Timing : Nov 5, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
Session Timing : Nov 11, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
Session Timing : Nov 12, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
Session Timing : Nov 18, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
Session Timing : Nov 19, 2023 at 1:00 PM
Counseller : Theta
main*
Go Live


File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
Session Timing : Nov 19, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
==========
==========
Programme : BCA
Semester : 3
Course Code : Subject A3
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 9:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 5, 2023 at 9:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 11, 2023 at 9:00 AM
Counseller : Pi
Venue : ABC College F3 R12
==========
==========
Programme : BCA
Semester : 3
Course Code : Subject B3
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 11:00 AM
Counseller : Pi
main*
Go Live


File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
==========
Programme : BCA
Semester : 3
Course Code : Subject B3
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 11:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 5, 2023 at 11:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 11, 2023 at 11:00 AMNov 12, 2023 at 11:00 AMNov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Pi
Venue : ABC College F3 R12
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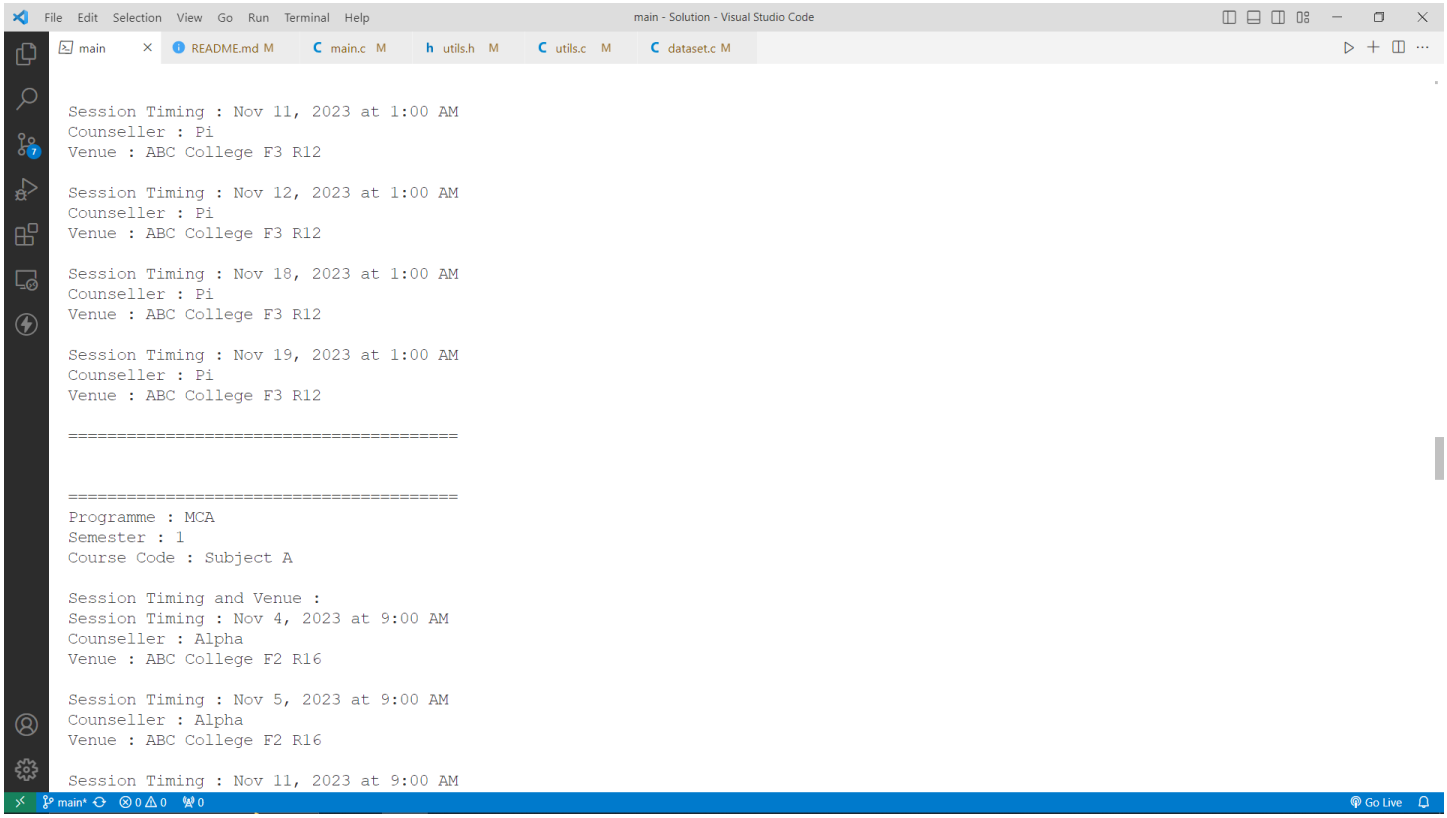
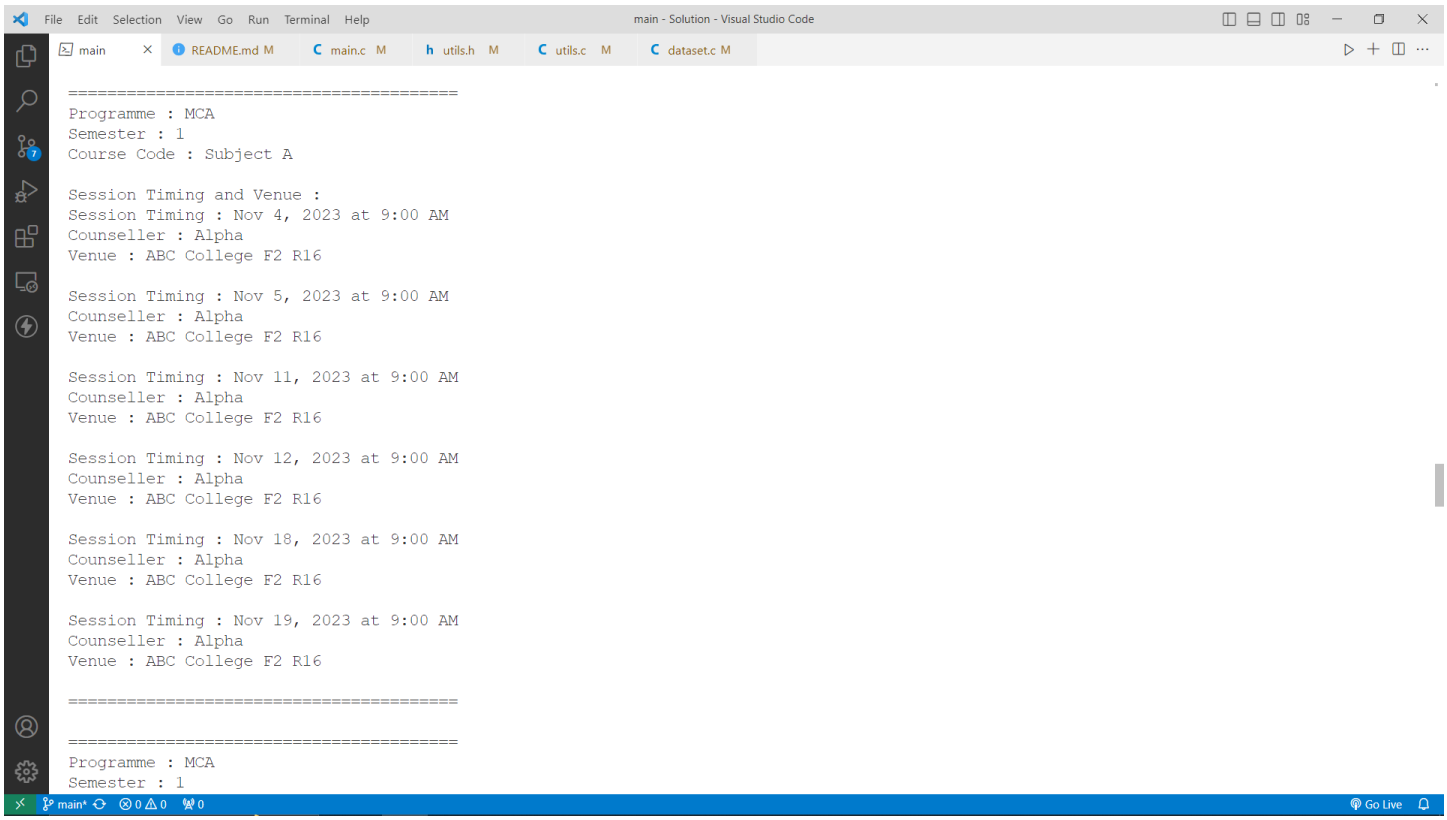
==========
Programme : BCA
Semester : 3
Course Code : Subject C3
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 5, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 11, 2023 at 1:00 AM
main*
Go Live


File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
Session Timing : Nov 11, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 12, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 18, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 19, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
==========
==========
Programme : MCA
Semester : 1
Course Code : Subject A
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 9:00 AM
Counseller : Alpha
Venue : ABC College F2 R16
Session Timing : Nov 5, 2023 at 9:00 AM
Counseller : Alpha
Venue : ABC College F2 R16
Session Timing : Nov 11, 2023 at 9:00 AM
main*
Go Live


File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
==========
Programme : MCA
Semester : 1
Course Code : Subject A
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 9:00 AM
Counseller : Alpha
Venue : ABC College F2 R16
Session Timing : Nov 5, 2023 at 9:00 AM
Counseller : Alpha
Venue : ABC College F2 R16
Session Timing : Nov 11, 2023 at 9:00 AM
Counseller : Alpha
Venue : ABC College F2 R16
Session Timing : Nov 12, 2023 at 9:00 AM
Counseller : Alpha
Venue : ABC College F2 R16
Session Timing : Nov 18, 2023 at 9:00 AM
Counseller : Alpha
Venue : ABC College F2 R16
Session Timing : Nov 19, 2023 at 9:00 AM
Counseller : Alpha
Venue : ABC College F2 R16
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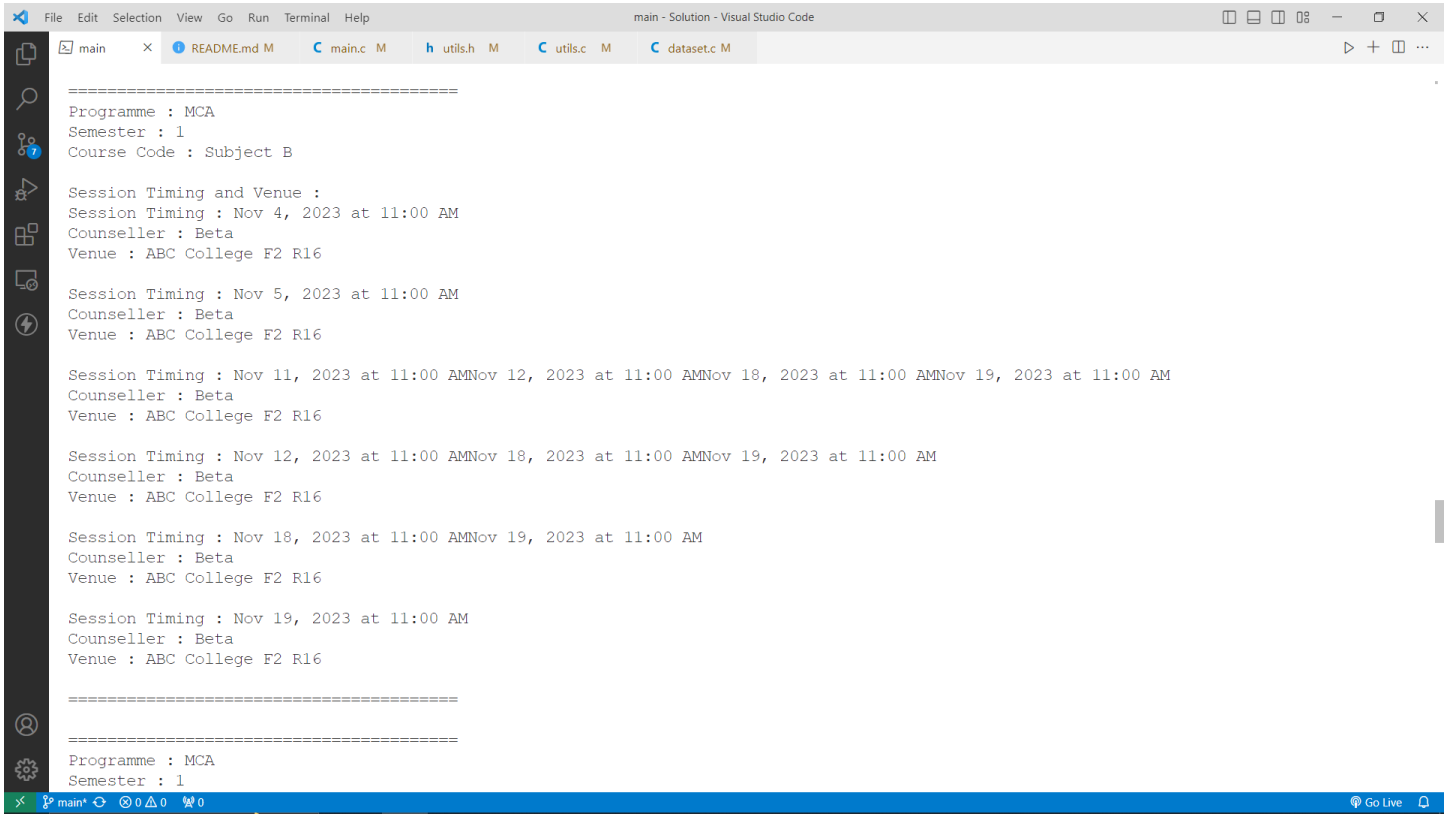
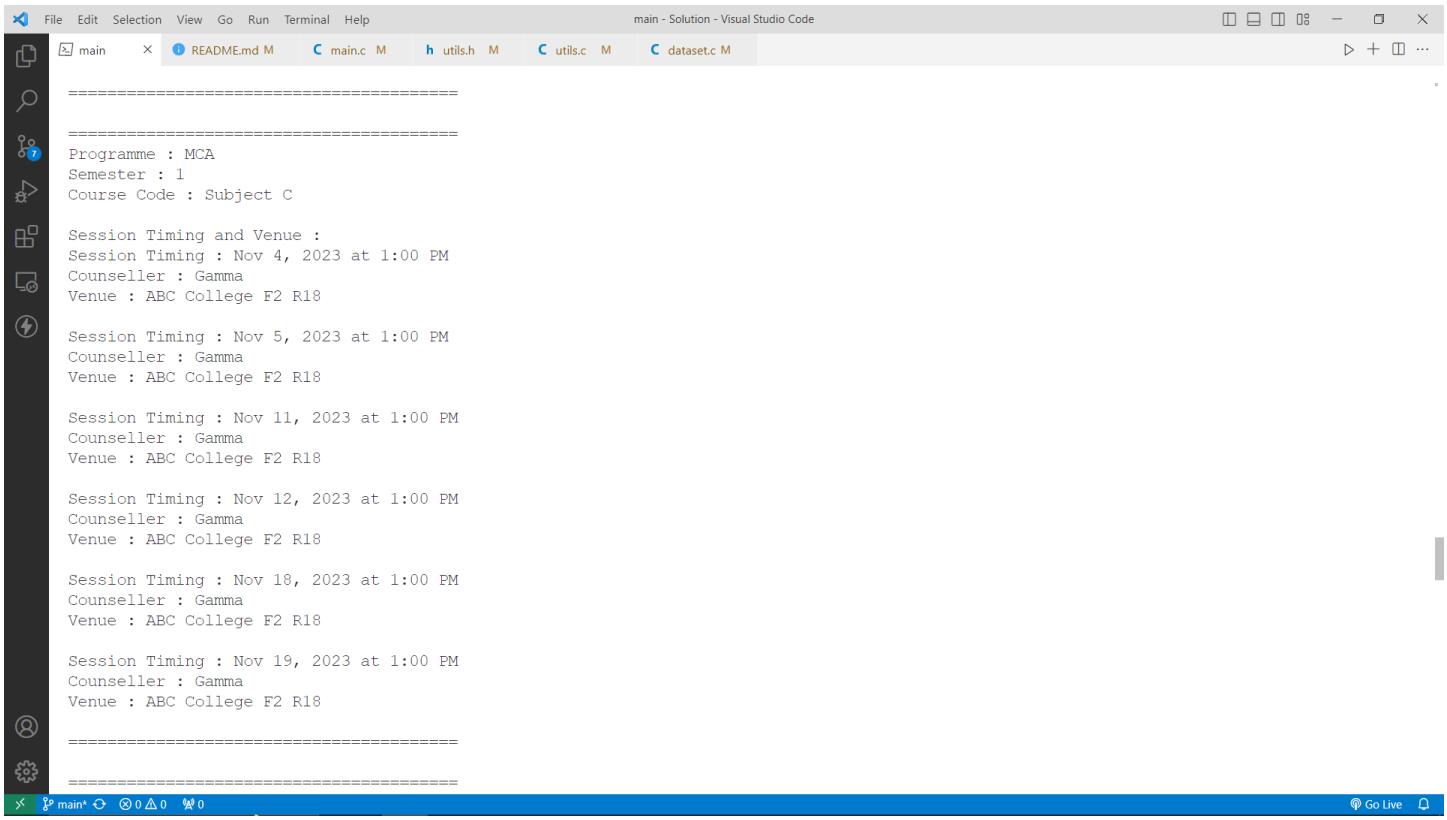
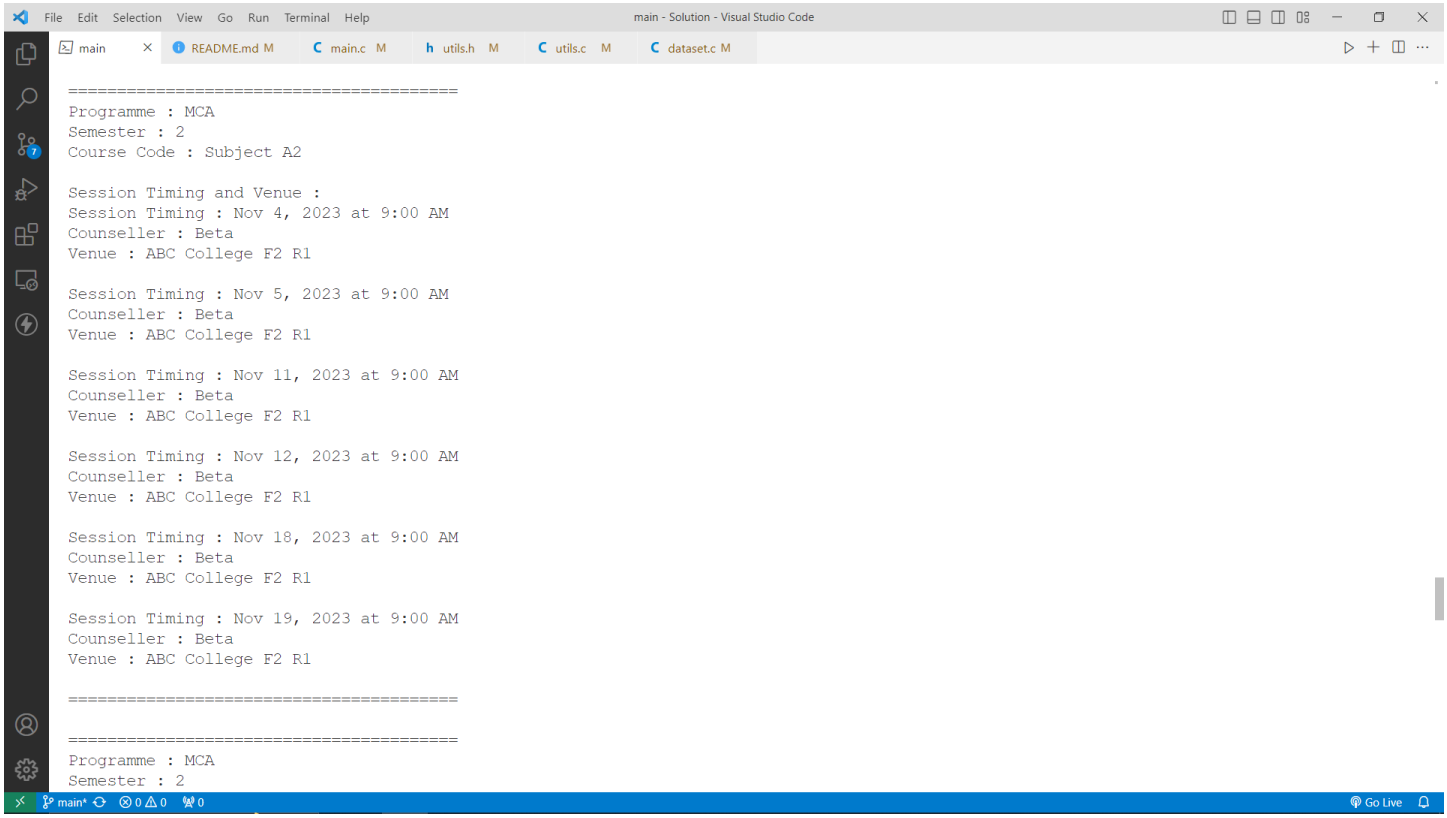
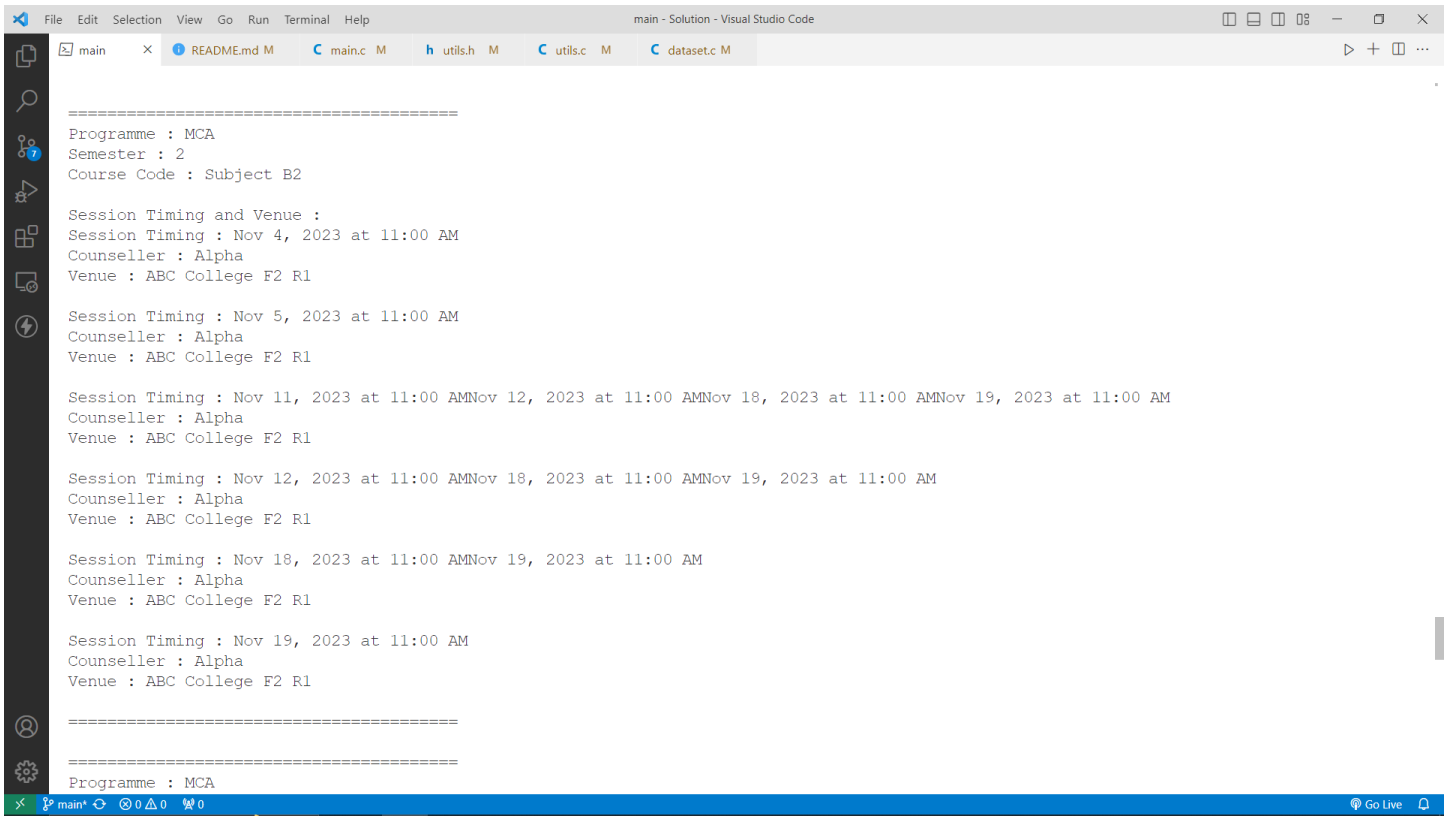
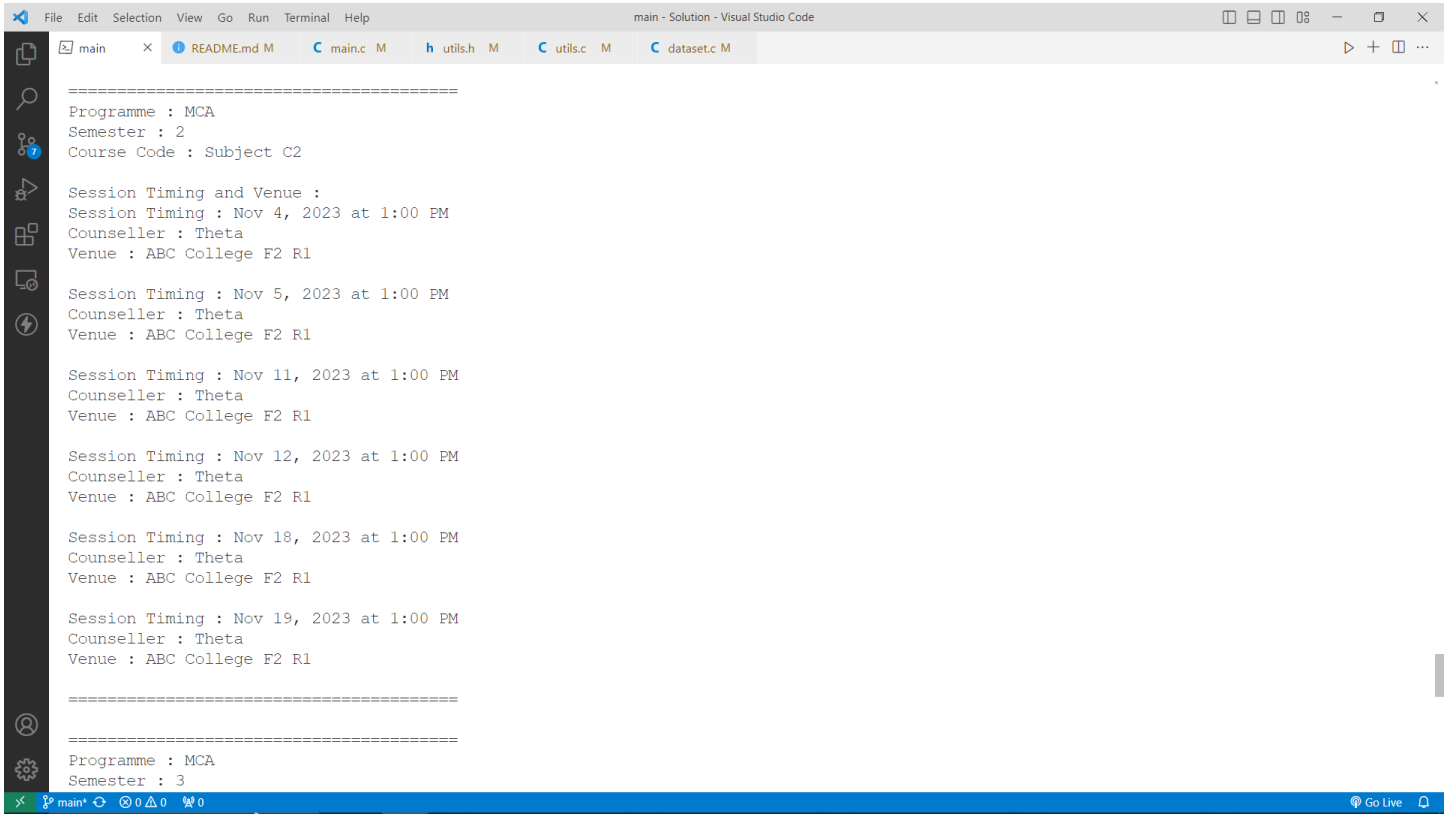
==========
Programme : MCA
Semester : 1
main*
Go Live

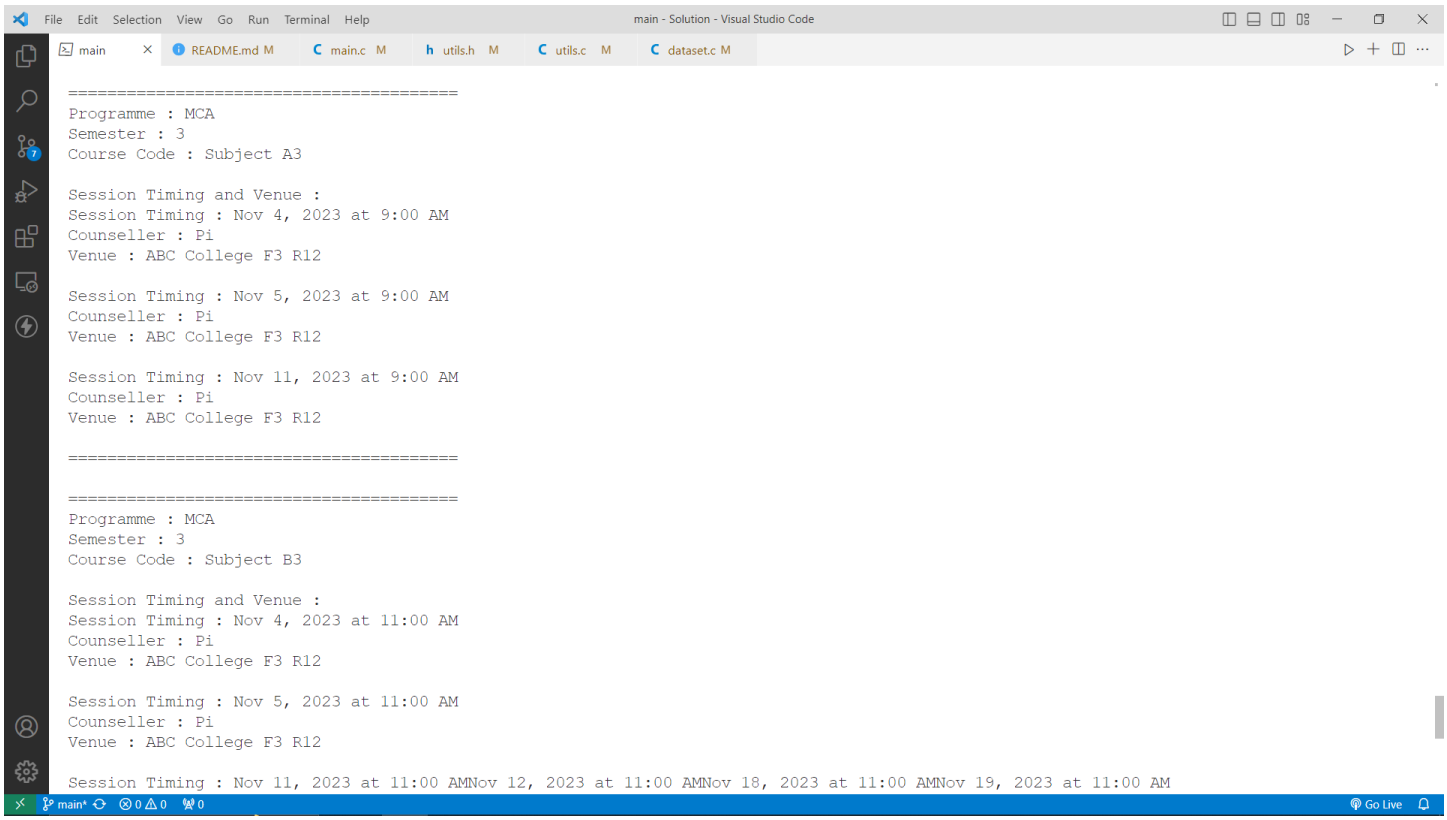

File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
==========
Programme : MCA
Semester : 1
Course Code : Subject B
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 11:00 AM
Counseller : Beta
Venue : ABC College F2 R16
Session Timing : Nov 5, 2023 at 11:00 AM
Counseller : Beta
Venue : ABC College F2 R16
Session Timing : Nov 11, 2023 at 11:00 AMNov 12, 2023 at 11:00 AMNov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Beta
Venue : ABC College F2 R16
Session Timing : Nov 12, 2023 at 11:00 AMNov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Beta
Venue : ABC College F2 R16
Session Timing : Nov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Beta
Venue : ABC College F2 R16
Session Timing : Nov 19, 2023 at 11:00 AM
Counseller : Beta
Venue : ABC College F2 R16
==========
==========
Programme : MCA
Semester : 1
main*
Go Live

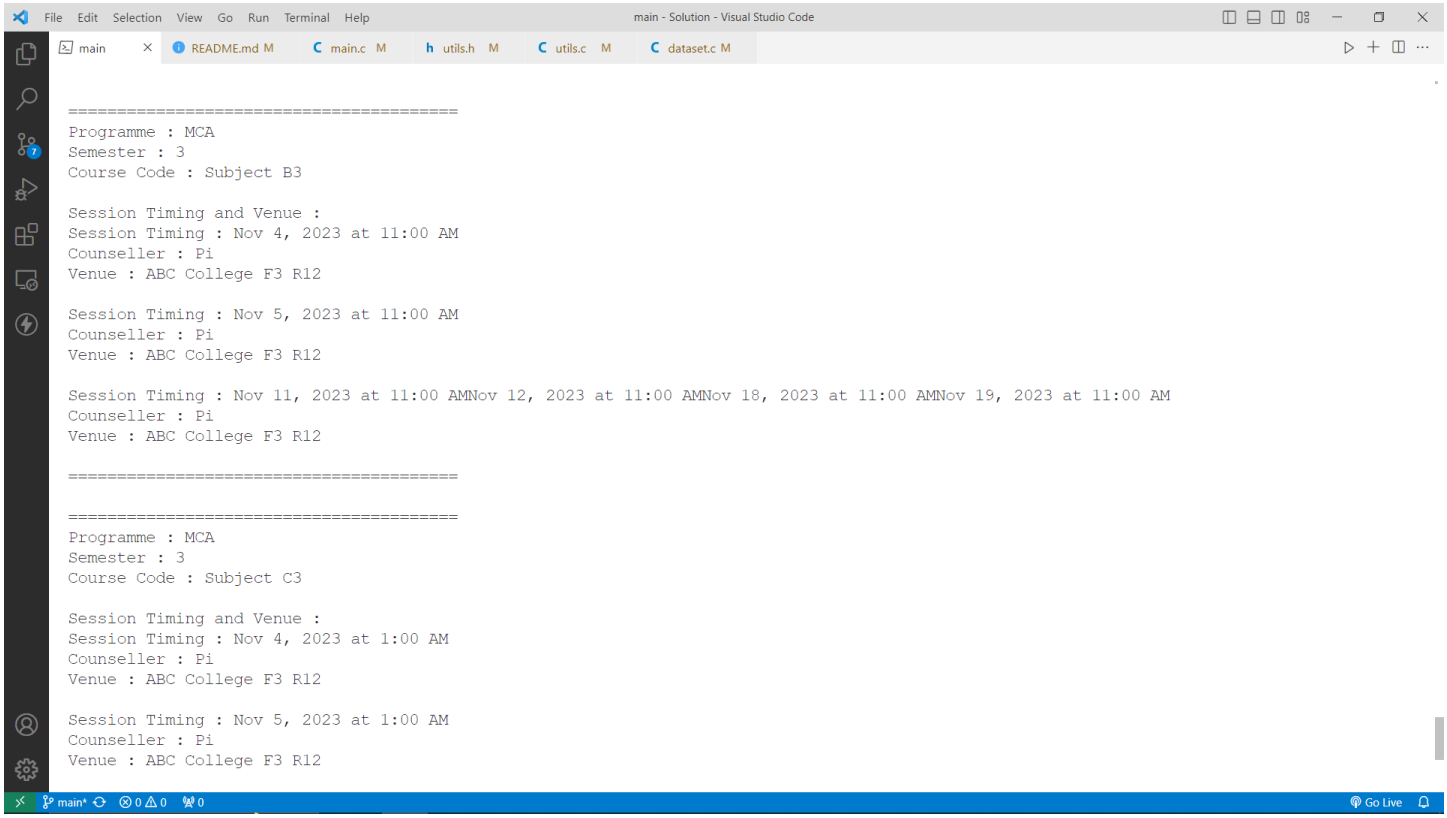

File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
==========
==========
Programme : MCA
Semester : 1
Course Code : Subject C
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
Session Timing : Nov 5, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
Session Timing : Nov 11, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
Session Timing : Nov 12, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
Session Timing : Nov 18, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
Session Timing : Nov 19, 2023 at 1:00 PM
Counseller : Gamma
Venue : ABC College F2 R18
==========
==========
main*
Go Live

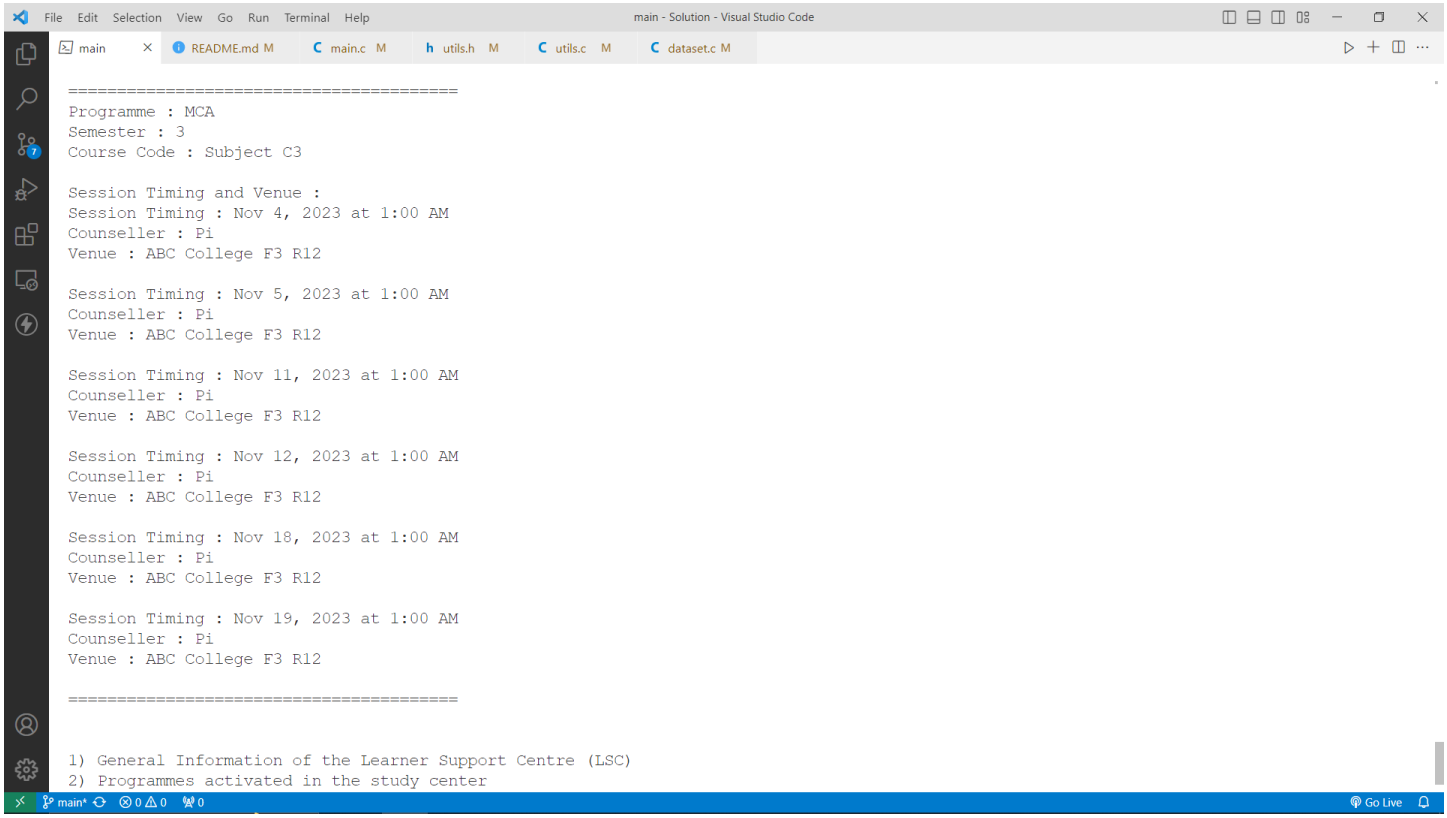

File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
==========
Programme : MCA
Semester : 2
Course Code : Subject A2
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
Session Timing : Nov 5, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
Session Timing : Nov 11, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
Session Timing : Nov 12, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
Session Timing : Nov 18, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
Session Timing : Nov 19, 2023 at 9:00 AM
Counseller : Beta
Venue : ABC College F2 R1
==========
==========
Programme : MCA
Semester : 2
main*
Go Live

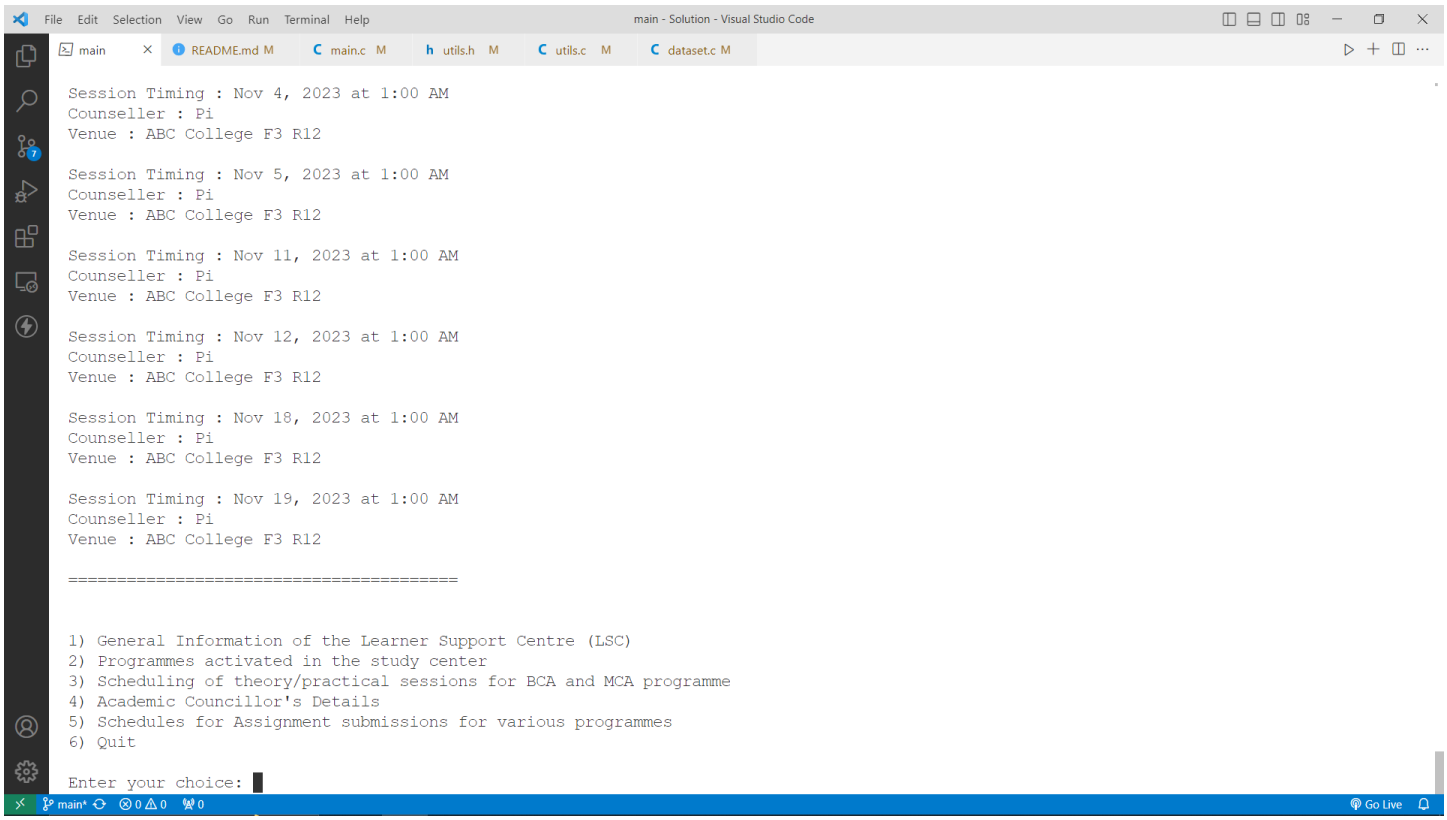

File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
==========
Programme : MCA
Semester : 2
Course Code : Subject B2
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
Session Timing : Nov 5, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
Session Timing : Nov 11, 2023 at 11:00 AMNov 12, 2023 at 11:00 AMNov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
Session Timing : Nov 12, 2023 at 11:00 AMNov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
Session Timing : Nov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
Session Timing : Nov 19, 2023 at 11:00 AM
Counseller : Alpha
Venue : ABC College F2 R1
==========
==========
Programme : MCA
main*
Go Live


File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
==========
Programme : MCA
Semester : 2
Course Code : Subject C2
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
Session Timing : Nov 5, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
Session Timing : Nov 11, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
Session Timing : Nov 12, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
Session Timing : Nov 18, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
Session Timing : Nov 19, 2023 at 1:00 PM
Counseller : Theta
Venue : ABC College F2 R1
==========
==========
Programme : MCA
Semester : 3
main*
Go Live

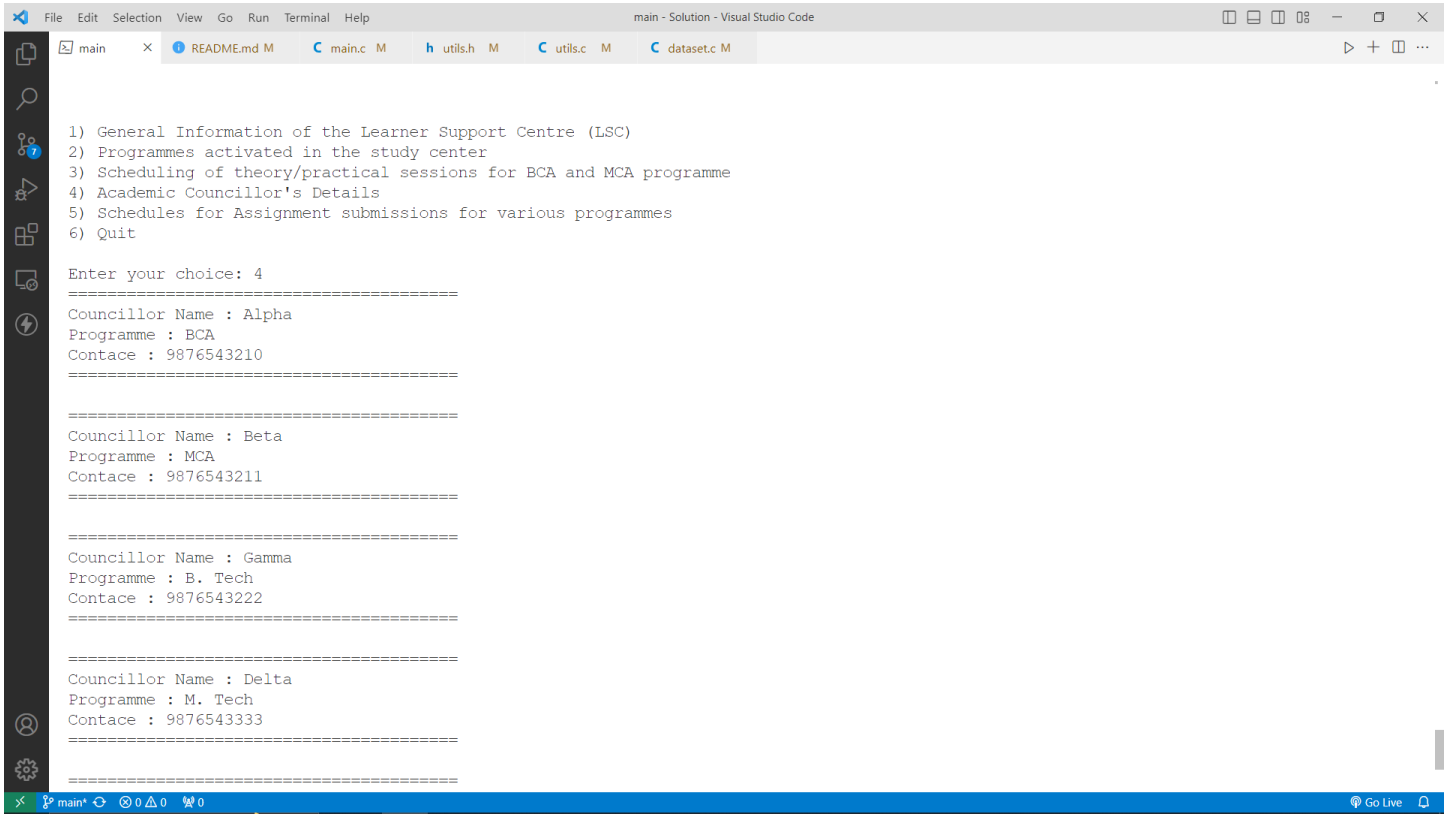

File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
==========
Programme : MCA
Semester : 3
Course Code : Subject A3
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 9:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 5, 2023 at 9:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 11, 2023 at 9:00 AM
Counseller : Pi
Venue : ABC College F3 R12
==========
==========
Programme : MCA
Semester : 3
Course Code : Subject B3
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 11:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 5, 2023 at 11:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 11, 2023 at 11:00 AMNov 12, 2023 at 11:00 AMNov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
main*
Go Live

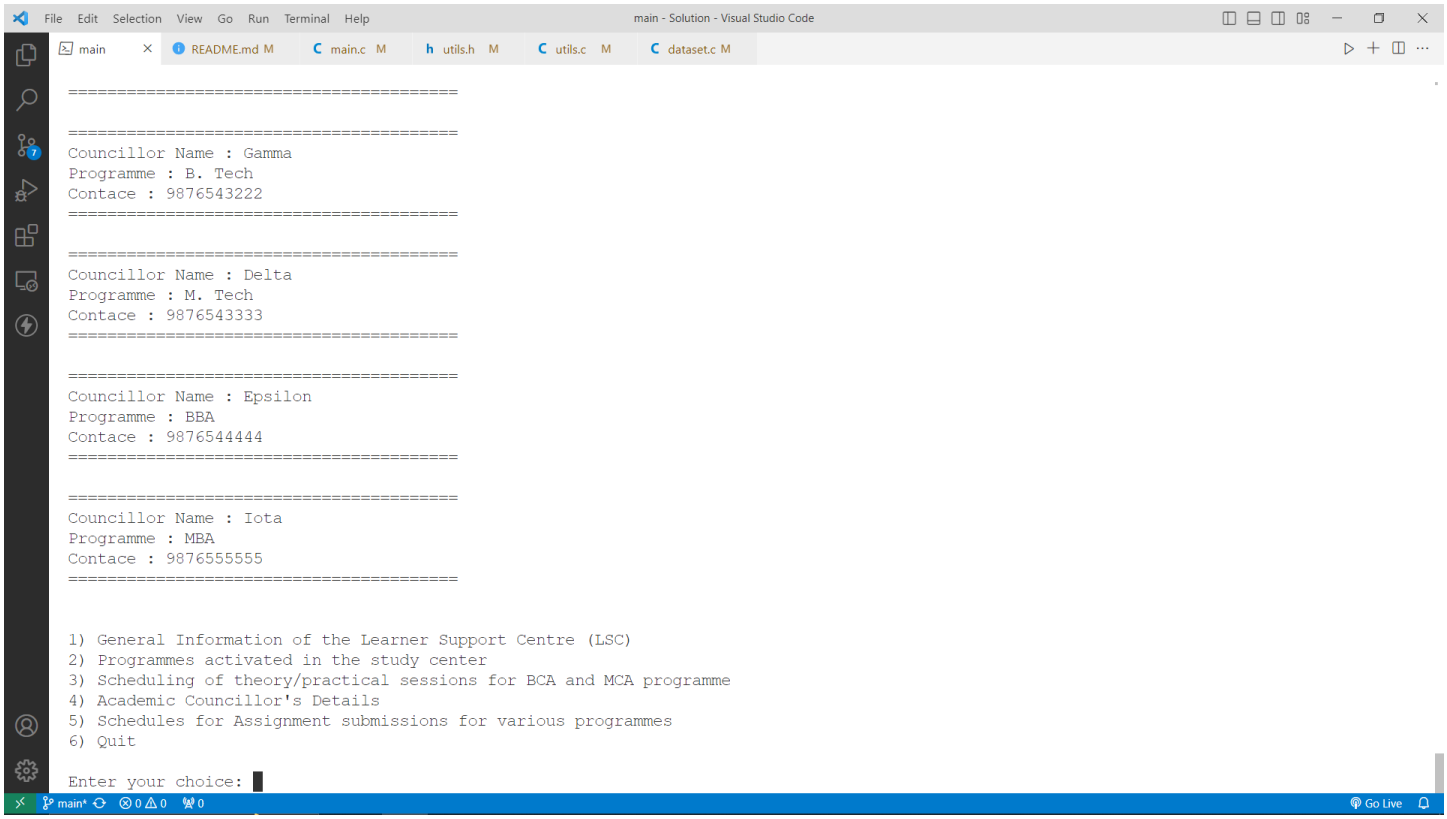

File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
==========
Programme : MCA
Semester : 3
Course Code : Subject B3
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 11:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 5, 2023 at 11:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 11, 2023 at 11:00 AMNov 12, 2023 at 11:00 AMNov 18, 2023 at 11:00 AMNov 19, 2023 at 11:00 AM
Counseller : Pi
Venue : ABC College F3 R12
==========
==========
Programme : MCA
Semester : 3
Course Code : Subject C3
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 5, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
main*
Go Live


File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
==========
Programme : MCA
Semester : 3
Course Code : Subject C3
Session Timing and Venue :
Session Timing : Nov 4, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 5, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 11, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 12, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 18, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 19, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
==========
1) General Information of the Learner Support Centre (LSC)
2) Programmes activated in the study center
main*
Go Live

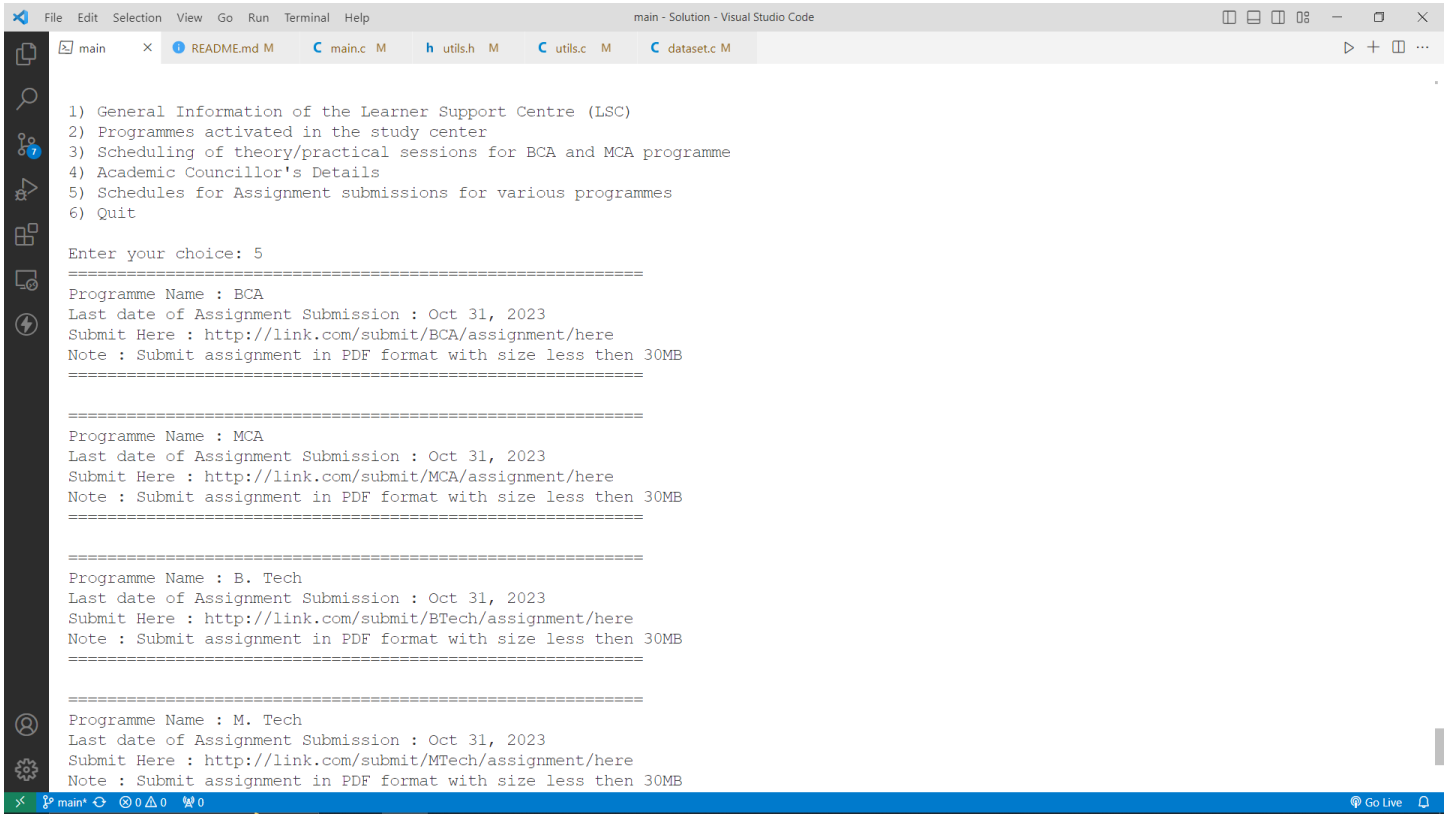

File Edit Selection View Go Run Terminal Help
main - Solution - Visual Studio Code
main
README.md M
main.c M
utils.h M
utils.c M
dataset.c M
Session Timing : Nov 4, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 5, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 11, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 12, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 18, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
Session Timing : Nov 19, 2023 at 1:00 AM
Counseller : Pi
Venue : ABC College F3 R12
==========
1) General Information of the Learner Support Centre (LSC)
2) Programmes activated in the study center
3) Scheduling of theory/practical sessions for BCA and MCA programme
4) Academic Councillor's Details
5) Schedules for Assignment submissions for various programmes
6) Quit
Enter your choice:
main*
Go Live

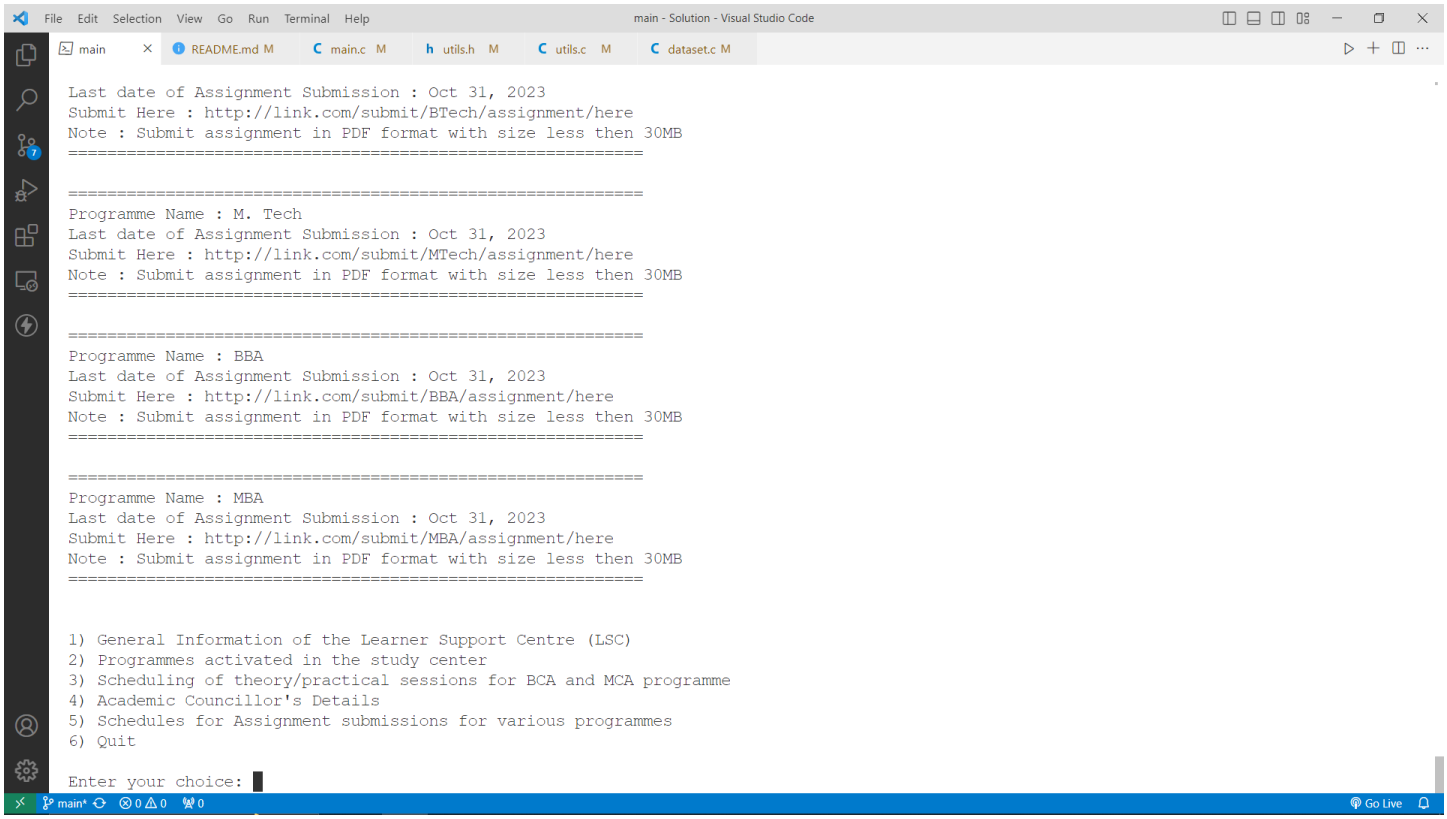
Then I returned to the main menu and choose 4 for getting details of councilors



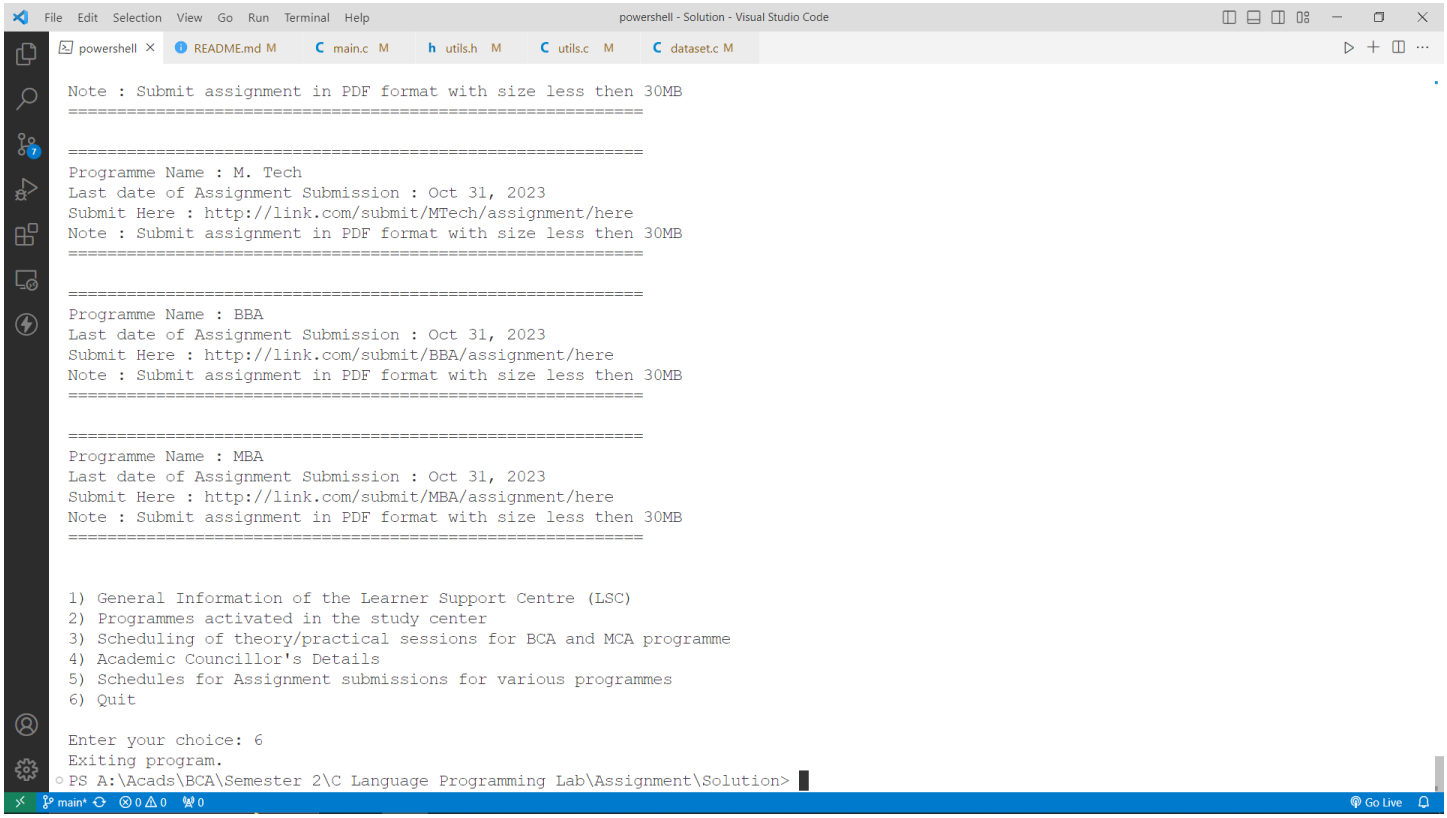


Next from main menu I choose 5 to get details of assignment submission schedule

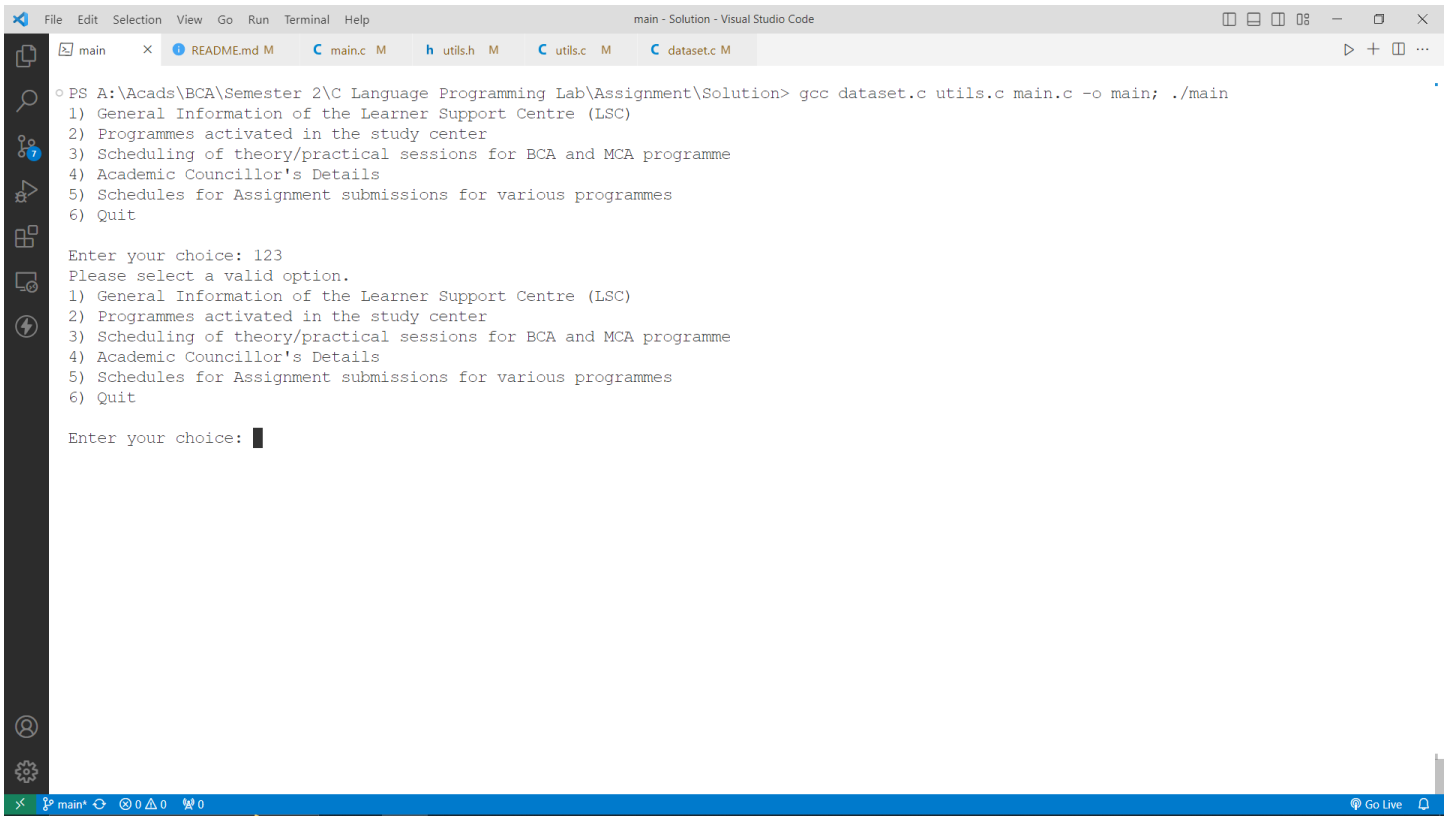




Here I'm pressing 6 to exit from the program



This is when I gave wrong input



Code :

`main.c`

```c
#include <stdio.h>
#include "utils.h"

// To compile and run : gcc dataset.c utils.c main.c -o main; ./main;

/* Print the main menu */
void print_menu() {
   printf("1) General Information of the Learner Support Centre (LSC)\n2) Programmes activated in the study center\n3) Scheduling of theory/practical sessions for BCA and MCA programme\n4) Academic Councillor's Details\n5) Schedules for Assignment submissions for various programmes\n6) Quit\n\nEnter your choice: ");
}

// entry point
int main() {
   int choice;

   do {
      print_menu();
      scanf("%d", &choice);

      switch (choice) {
      case 1:
         displayGeneralInfo();
         break;
```

```
        case 2:
            displayActivatedPrograms();
            break;
        case 3:
            displaySchedulingInfo();
            break;
        case 4:
            displayAcademicCouncillors();
            break;
        case 5:
            displayAssignmentSchedules();
            break;
        case 6:
            printf("Exiting program.\n");
            break;
        default:
            printf("Please select a valid option.\n");
        }
    } while (choice != 6);

    return 0;
}
```

`utils.h`

```
#ifndef UTILS_H
#define UTILS_H

// Structure to hold information about a learner support center
struct LearnerSupportCentre {
    int _id;
    char code[10];
    char name[100];
    char address[200];
    char coordinator[100];
    char phone[20];
    char email[100];
    char timing[30];
    char programmes[40][40];
    int programmes_total;
    int staff_academic;
    int staff_non_academic;
    char status[20];
};

// Structure to hold information about a counseling schedule
struct CounsellingSchedule {
    char programme[4];
    int semester;
    char course_code[15];
    char councilor[26];
    char session_timing[10][24];
```

```
    int total_sessions;
    int session_duration;
    char venue[48];
};

// Structure to hold information about a counselor
struct Councillor {
    char programme[8];
    char name[26];
    char phone[12];
};

// Structure to hold information about a counselor
struct AssignmentSubmissionSchedule {
    char programme[12];
    char submission_date[15];
    char link[50];
    char note[100];
};


// Function to display general information
void displayGeneralInfo();

// Function to display activated programs
void displayActivatedPrograms();
```

```
// Function to display scheduling information
void displaySchedulingInfo();

// Function to display academic counselor details
void displayAcademicCouncillors();

// Function to display assignment submission schedules
void displayAssignmentSchedules();

#endif
```

`utils.c`

```c
#include <stdio.h>
#include <conio.h>
#include <string.h>
#include "utils.h"


// dataset
extern struct LearnerSupportCentre lsc_dataset[];
extern struct CounsellingSchedule councelling_schedule_BCA_dataset[];
extern struct CounsellingSchedule councelling_schedule_MCA_dataset[];
extern struct Councillor councillors_dataset[];
extern struct AssignmentSubmissionSchedule assignment_submission_schedule[];

// constants
extern int SIZE_OF_LSC_DATASET;
extern int SIZE_OF_COUNSELLING_SCHEDULE_BCA_DATASET;
extern int SIZE_OF_COUNSELLING_SCHEDULE_MCA_DATASET;
extern int SIZE_OF_COUNSELLORS_DATASET;
extern int SIZE_OF_ASSIGNMENT_SUBMISSION_SCHEDULE_DATASET;


// functions

/* Show details of selected LSC */
void printLSCDetails(struct LearnerSupportCentre lsc) {
    printf("========================================\n");
```

```
    printf("Id : %d\nLSC Code : %s\nLSC Name : %s\nLSC Address : %s\nEmail :
%s\nPhone : %s\nCoordinator Name : %s\nTiming : %s\nTotal Academic Staff :
%d\nTotal Non-Academic Staff : %d\nStatus : %s\n", lsc._id, lsc.code, lsc.name,
lsc.address, lsc.email, lsc.phone, lsc.coordinator, lsc.timing, lsc.staff_academic,
lsc.staff_non_academic, lsc.status);
    printf("Programme(s) Activated in this LSC : \n");
    for (int i = 0; i < lsc.programmes_total; i++) {
        printf("%s", lsc.programmes[i]);
        if (i != lsc.programmes_total - 1) {
            printf(", ");
        }
    }
    printf("\n");
    printf("==========================================\n\n");
}

/* Function to display general information */
void displayGeneralInfo() {
    char scCode[10] = "\0";
    printf("Enter LSC Code\n");
    printf("You can press * to see all LSCs information\n");
    scanf("%s", scCode);

    if (!strcmp(scCode, "*")) {
        for (int i = 0; i < SIZE_OF_LSC_DATASET; i++) {
            printLSCDetails(lsc_dataset[i]);
        }
```

```
    } else {
        for (int i = 0; i < SIZE_OF_LSC_DATASET; i++) {
            if (!strcmp(lsc_dataset[i].code, scCode)) {
                printLSCDetails(lsc_dataset[i]);
                return;
            }
        }
        printf("No LSC found by this code.\n\n");
    }
}

/* Function to display activated programs */
void displayActivatedPrograms() {
    char scCode[10] = "\0";
    printf("Enter LSC Code : ");
    scanf("%s", scCode);

    for (int i = 0; i < SIZE_OF_LSC_DATASET; i++) {
        if (!strcmp(lsc_dataset[i].code, scCode)) {
            printf("Programme(s) available at %s : \n", lsc_dataset[i].name);
            for (int j = 0; j < lsc_dataset[i].programmes_total; j++) {
                printf("%s", lsc_dataset[i].programmes[j]);
                if (j != lsc_dataset[i].programmes_total - 1) {
                    printf(", ");
                }
            }
            printf("\n\n");
```

```
            return;
        }
    }
    printf("No LSC found by this code.\n\n");
}

/* Show details of Counseling Schedule */
void printCounselingSchedule(struct CounsellingSchedule schedule) {
    printf("=========================================\n");
    printf("Programme : %s\nSemester : %d\nCourse Code : %s\n\n",
schedule.programme, schedule.semester, schedule.course_code);
    printf("Session Timing and Venue : \n");
    for (int i = 0; i < schedule.total_sessions; i++) {
        printf("Session Timing : %s\nCounseller : %s\nVenue : %s\n\n",
schedule.session_timing[i], schedule.councilor, schedule.venue);
    }
    printf("=========================================\n\n");
}

/* Function to display scheduling information */
void displaySchedulingInfo() {
    printf("Counseling schedule for BCA and MCA of RC Delhi 3\n");
    for (int i = 0; i < SIZE_OF_COUNSELLING_SCHEDULE_BCA_DATASET; i++) {
        printCounselingSchedule(councelling_schedule_BCA_dataset[i]);
    }
    printf("\n");
    for (int i = 0; i < SIZE_OF_COUNSELLING_SCHEDULE_MCA_DATASET; i++) {
```

```
        printCounselingSchedule(councelling_schedule_MCA_dataset[i]);
    }
    printf("\n");
}

/* print details of councilor */
void printCounselors(struct Councillor councilor) {
    printf("=========================================\n");
    printf("Councillor Name : %s\nProgramme : %s\nContace : %s\n", councilor.name,
councilor.programme, councilor.phone);
    printf("=========================================\n\n");
}

/* Function to display academic counselor details */
void displayAcademicCouncillors() {
    for (int i = 0; i < SIZE_OF_COUNSELLORS_DATASET; i++) {
        printCounselors(councillors_dataset[i]);
    }
    printf("\n");
}

void printAssignmentSubmissionInfo(struct AssignmentSubmissionSchedule
schedule) {

printf("=================================================================
=====\n");
```

```
    printf("Programme Name : %s\nLast date of Assignment Submission : %s\nSubmit Here : %s\nNote : %s\n", schedule.programme, schedule.submission_date, schedule.link, schedule.note);

printf("==========\n\n");
}

/* Function to display assignment submission schedules */
void displayAssignmentSchedules() {
    for (int i = 0; i < SIZE_OF_ASSIGNMENT_SUBMISSION_SCHEDULE_DATASET; i++) {
        printAssignmentSubmissionInfo(assignment_submission_schedule[i]);
    }
    printf("\n");
}
```

`dataset,c`
Please refer https://github.com/Sahil-4/BCSL021-assginment-solution