PROJECT NAME

MOVIES IN CITY

TICKET

2179264

PROJECT NUMBER

S NO.	NAME	BRANCH	ROLL NO.
1.	AKASH REDDY K	CSE A	23P81A0531
2.	KRUSHITH N	CSE A	23P81A0544
3.	PARTHIV KUMAR K	CSE A	23P81A0530
4.	SANTHI SRI P	CSE B	23P81A05C0
5.	SNEHITH M	CSE B	23P81A05B3
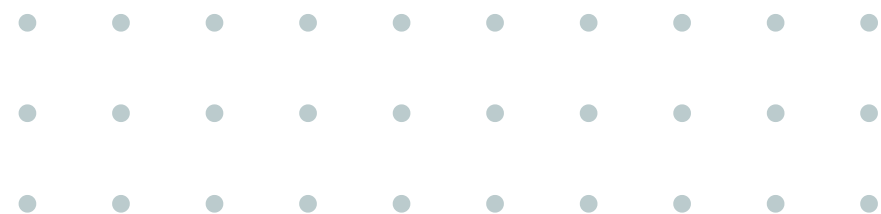
SOFTWARE USED
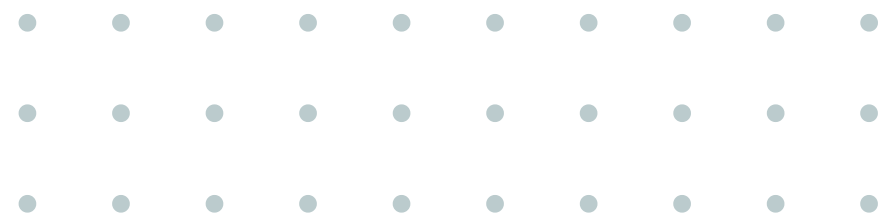
DEV C++

OPERATING SYSTEM

DOCUMENTATION

Save details of atleast 5 theatres in a city in a binary file

REQUIREMENTS

1. **Search movies between From to To Date and show all movies, all shows & in all theatres.**

2. **Search Movie for particular date**

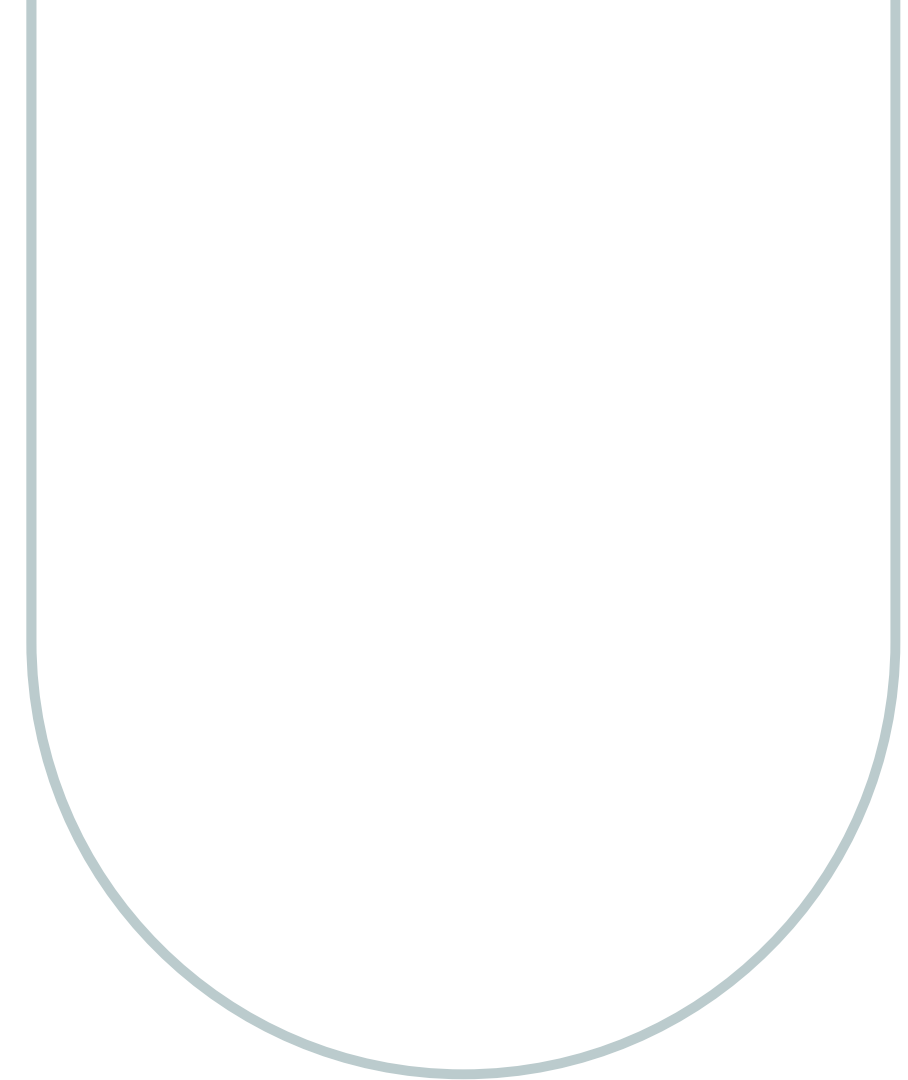3. **List of all theatres**

TOPICS COVERED

ARRAYS

POINTERS

STRUCTURES

LOOPS

BINARY FILES

MENU DRIVE

USER DEFINED HEADER FILES

DYNAMIC MEMORY ALLOCATION

PROCEDURAL PROGRAMMING

- **void add_theatres_data()**
- **void list_of_theatres()**
- **void movie_available()**
- **void range_of_dates()**
- **int main()**

ALGORITHM

STEP 1:Start

STEP 2:Define a structure named "Movie"

Members of the strucure:-

theatrename   -String used to store Theatre name

moviename1   -String used to store movie name.

*showtime1   -Pointers to characters storing showtime1

*showtime2   -Pointers to characters storing showtime2

*showtime3   -Pointers to characters storing showtime3

start_date   -Variable used to store start date

start_month   -Variable used to store start month

start_year   -Variable used to store start year

end_date   -Variable used to store end date

end_month   -Variable used to store end month

end_year   -Variable used to store end year.

ALGORITHM

STEP 3:add_theatres_data()- User-Defined function is used to add theatre information and movies.

STEP 4:list_of_theatres()- User-Defined function to display a list of all theatres.

STEP 5:movie_available()- User-Defined function to find movies available on a particular date.

STEP 6:range_of_dates()- User-Defined function to find movies available in a date range.

STEP 7:In the main function ,display then menu

STEP 8:Enter the choice

STEP 9: IF(choice==1) , goto 15,else10

STEP 10:IF(choice==2) , goto 20,else11

STEP 11:IF(choice==3) , goto 23 ,else12

STEP 12:IF(choice==4) , goto 27,else13

STEP 13:IF(choice==5) , Free all the showtime values & goto31

STEP 14:IF(default) , print "Your choice doesn't match." ,goto 8.

STEP 15:In the add_theatres_data() function:

   Open a binary file in append mode ("ab+") to store theatre's information.

ALGORITHM

STEP 16:If(NULL) ,print"Error in opening file" ,goto 8 ,else 17

STEP 17:Enter number of theaher you want to add.

STEP 18:Dynamically allocate memory for showtime strings.

STEP 19:Take input for theatre details from the user and write to the file.

STEP 20: Close the file ,goto 8.

STEP 21:In the list_of_theatres() function:

    Open the binary file in read mode ("rb+").

STEP 22:If(NULL) ,print"Error in opening file" ,goto 8 ,else 23

STEP 23:Read and print details of each theatre from the file.

STEP 24:Close the file , goto 8.

STEP 25:In the movie_available() function:

    Open the binary file in read and write mode ("rb+").

STEP 26:If(NULL) ,print"Error in opening file" ,goto 8 ,else 27

STEP 27:Take input for a particular search date from the user(in DD MM YYYY).

ALGORITHM

STEP 28:Search for movies available on the specified date and print details.

STEP 29:Close file , goto 8.

STEP 30:In the range_of_dates() function:

Open the binary file in read and write mode ("rb+").

STEP 31:If(NULL) ,print"Error in opening file" ,goto 8 ,else 32.

STEP 32:Take input for start and stop range of dates from the user.

STEP 33:Search for movies available in the specified date range and print details.
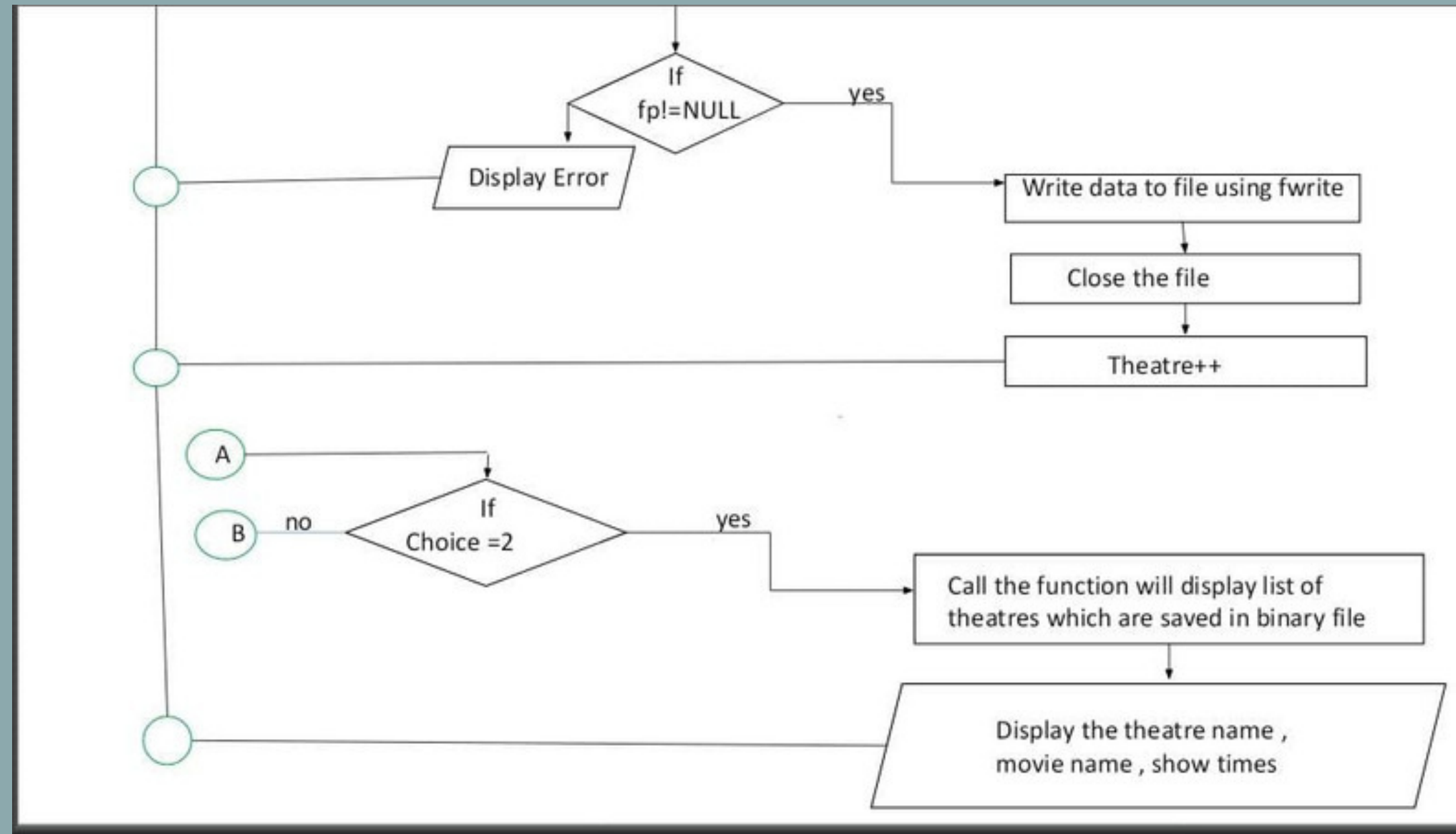
STEP 34:Close the file ,goto 8.
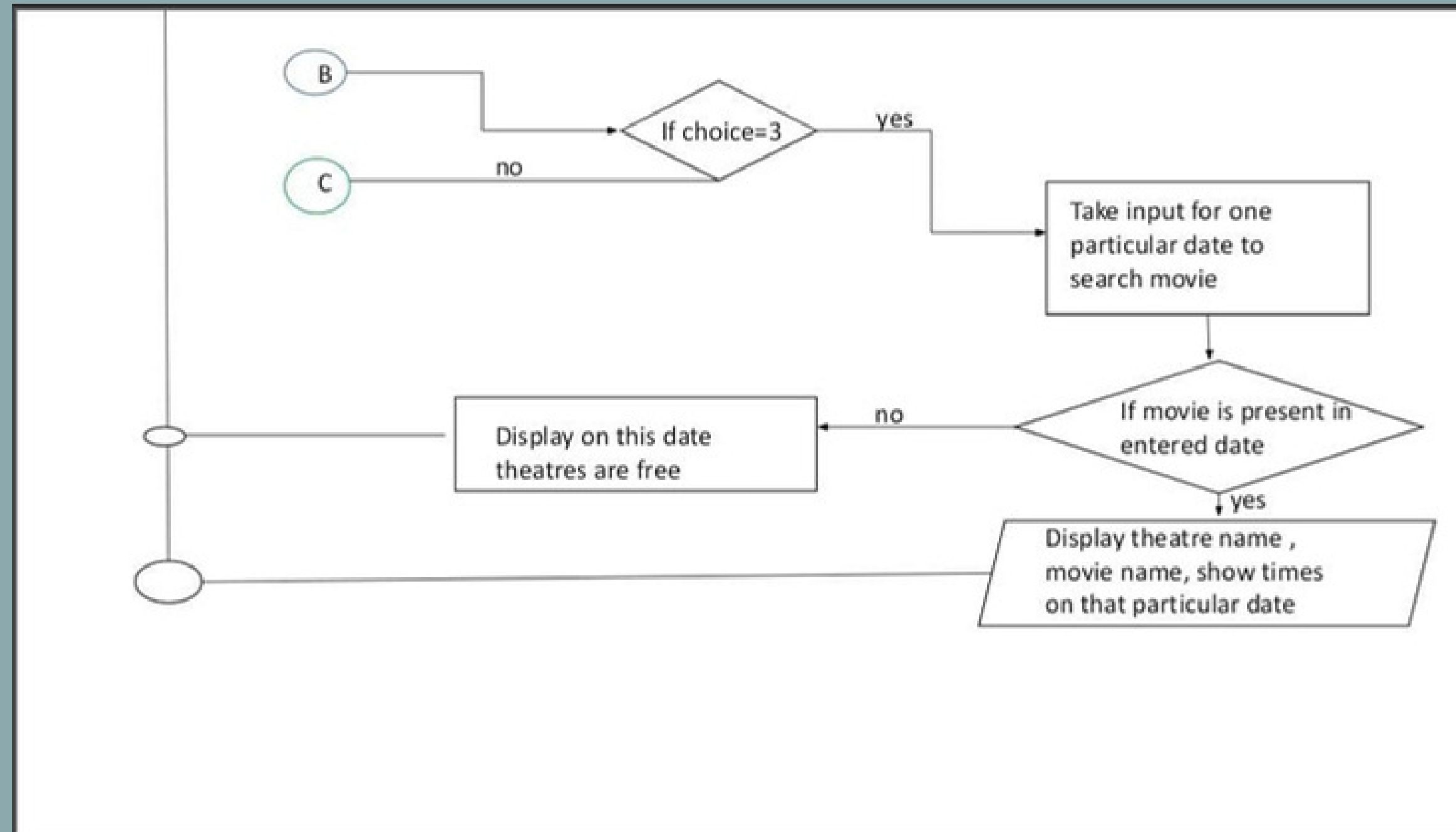
STEP 35:STOP

FLOWCHART
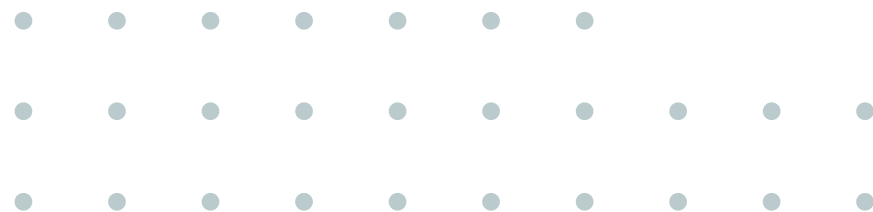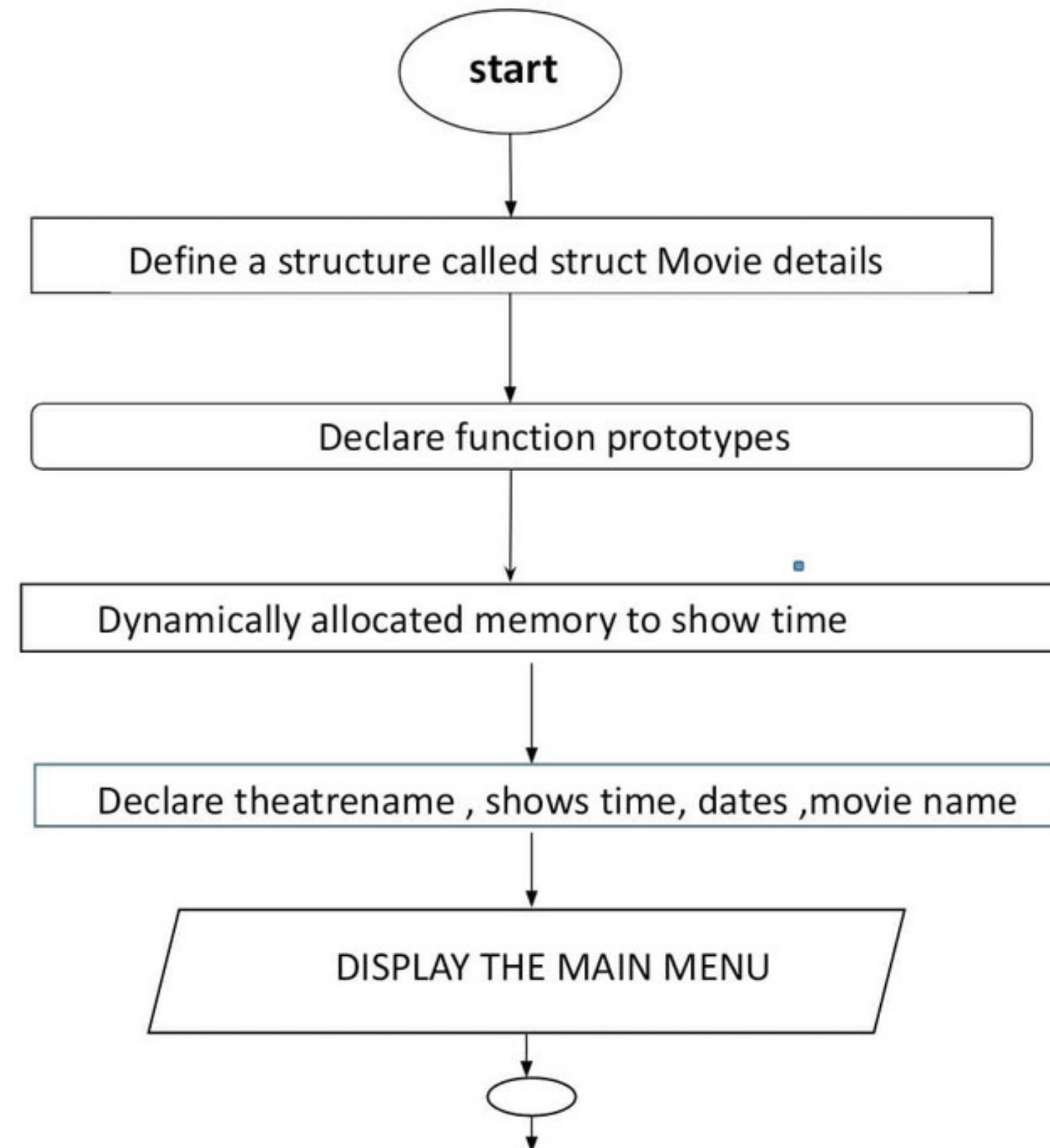
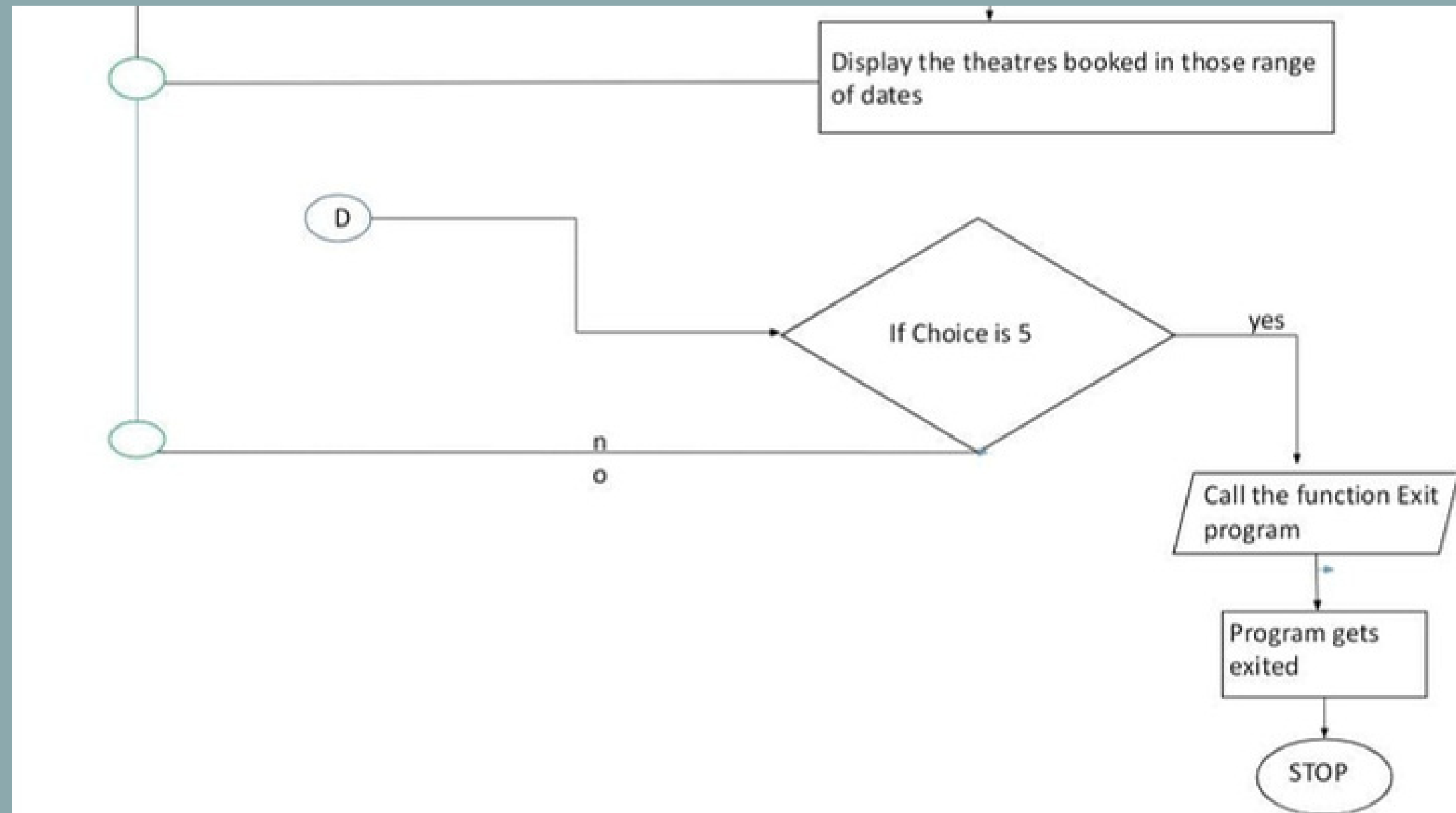# FLOWCHART
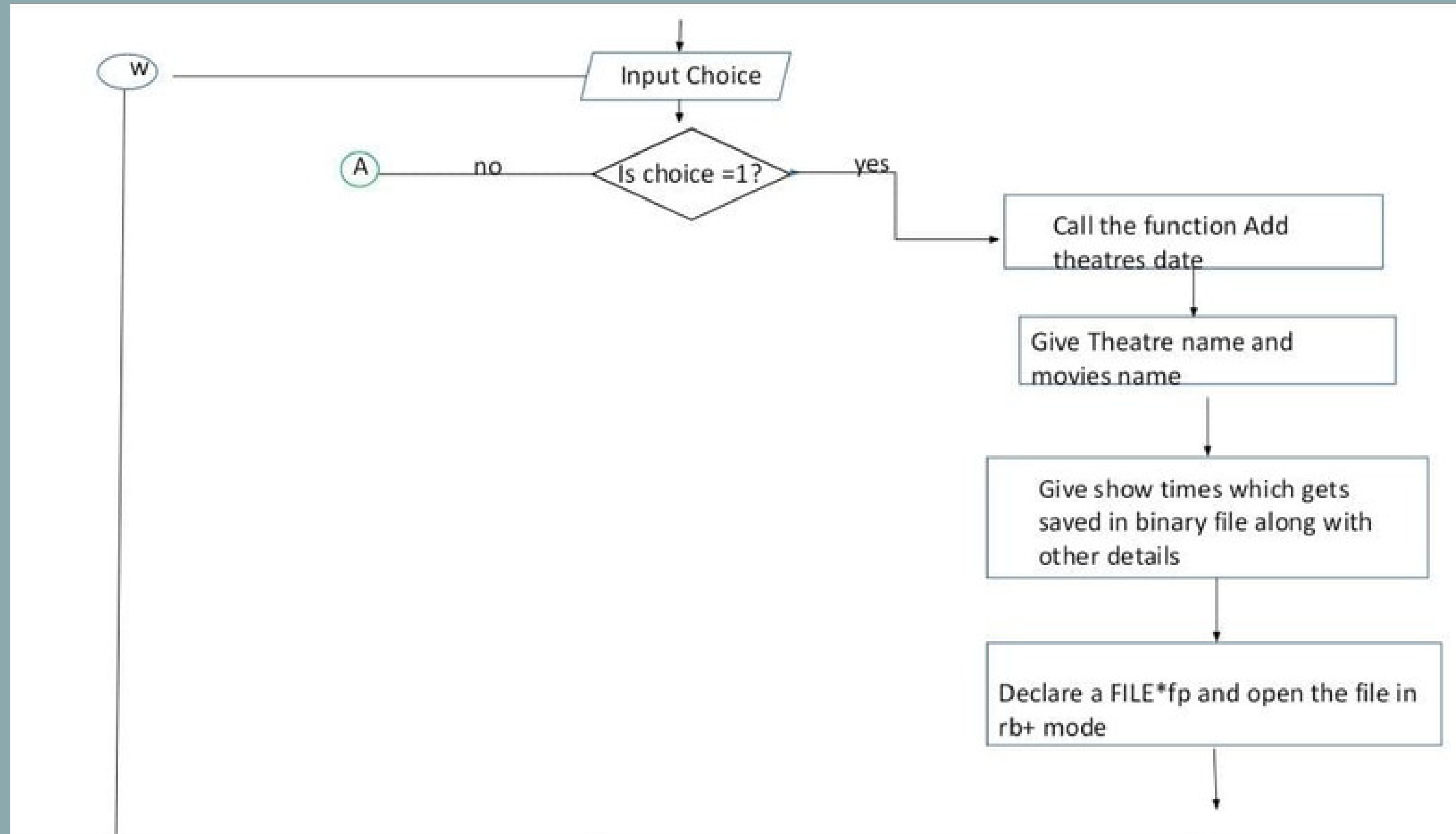
FLOWCHART

FLOWCHART
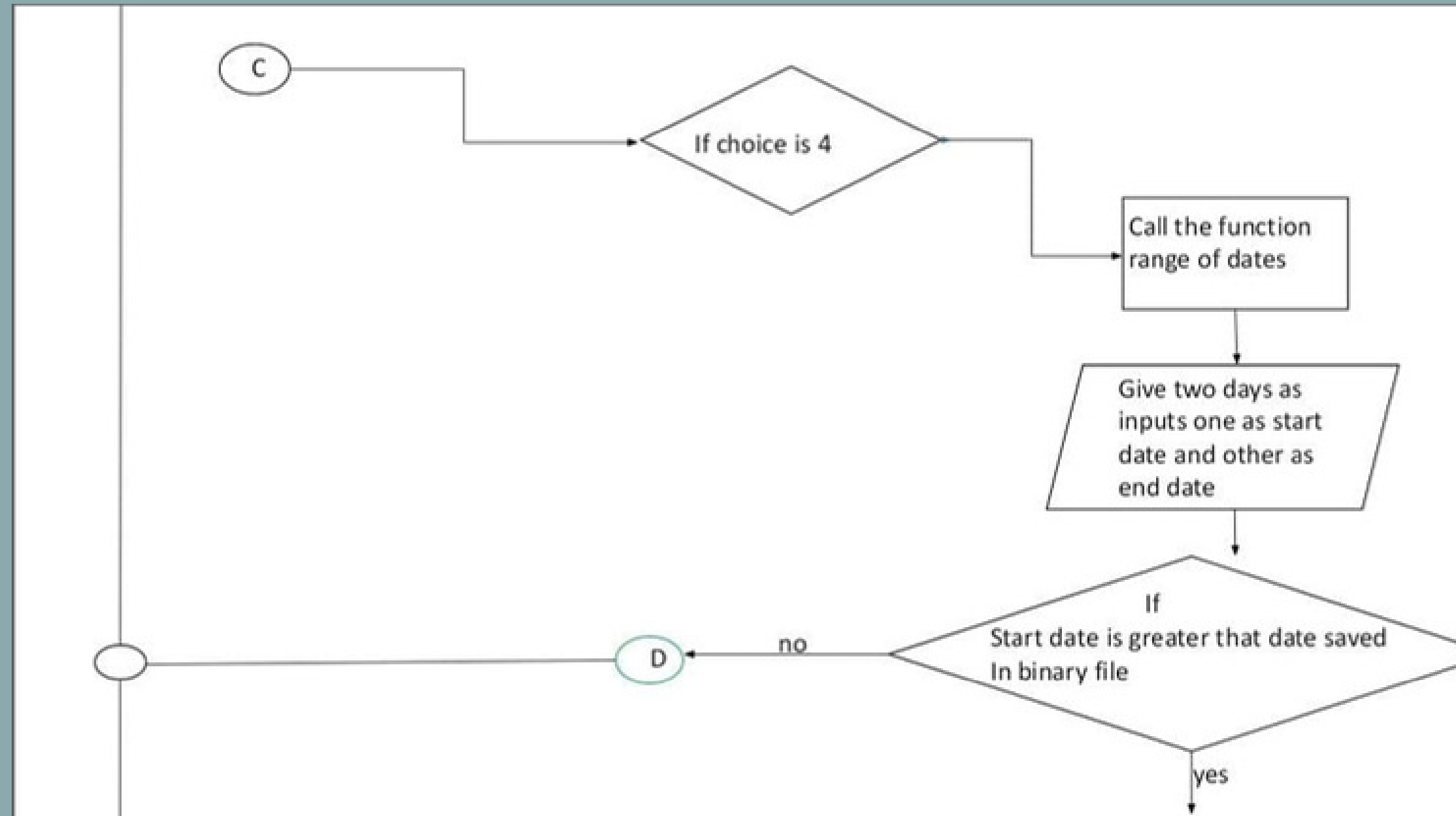
FLOWCHART

FLOWCHART

MAIN MENU

```
*****************************
***** Movies in a city*****
1. Add theatres list
2. List of all theatres
3. Movies available on a particular date
4. Movies available in a date range
5. Exit the program
Enter your choice: _
```
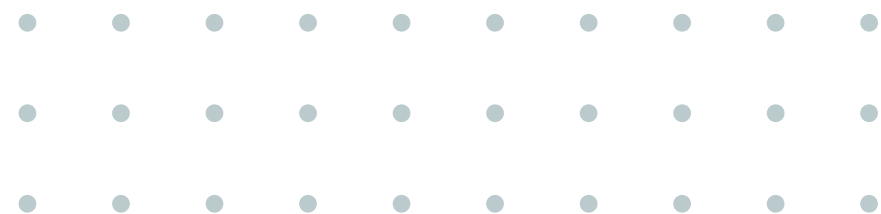
CODE

```c
#include <stdio.h>
#include <string.h>
#include <stdlib.h>

struct Movie {
    char theatrename[100];
    char moviename1[100];
    char *showtime1; // HH:MM
    char *showtime2;
    char *showtime3;
    int start_date;
    int start_month;
    int start_year; // DD-MM-YYYY
    int end_date;
    int end_month;
    int end_year;
} details;

void add_theatres_data();
void list_of_theatres();
void movie_available();
void range_of_dates();

int main() {
    int choice;

    do {
        printf("\t\t\t\t\t****************************\n");
        printf("\t\t\t\t\t***** Movies in a city*****\n");
        printf("\t\t\t\t\t1. Add theatres list\n");
        printf("\t\t\t\t\t2. List of all theatres\n");
        printf("\t\t\t\t\t3. Movies available on a particular date\n");
        printf("\t\t\t\t\t4. Movies available in a date range\n");
        printf("\t\t\t\t\t5. Exit the program\n");
        printf("\t\t\t\t\tEnter your choice: ");
        scanf("\t\t\t\t\t%d", &choice);
```

CODE

```c
switch (choice) {
    case 1:
        add_theatres_data();
        break;
    case 2:
        list_of_theatres();
        break;
    case 3:
        movie_available();
        break;
    case 4:
        range_of_dates();
        break;
    case 5:
        printf("Exit the program.\n");
        break;
    default:
        printf("Your choice doesn't match.\n");
        break;
}

} while (choice != 5);

// Don't forget to free allocated memory
free(details.showtime1);
free(details.showtime2);
free(details.showtime3);

return 0;
}
```

CODE

```c
void add_theatres_data() {
    int i, num;
    FILE *fp;

    fp = fopen("ww.bin", "ab+");
    if (fp == NULL) {
        printf("ERROR..! File cannot be opened.\n");
        return;
    }

    printf("Enter the number of theatres: ");
    scanf("%d", &num);
```

```c
    for (i = 0; i < num; i++) {
        struct Movie details;

        details.showtime1 = (char *)malloc(6 * sizeof(char));
        details.showtime2 = (char *)malloc(6 * sizeof(char));
        details.showtime3 = (char *)malloc(6 * sizeof(char));

        printf("\nEnter theatre name: ");
        fflush(stdin); // Clear input buffer
        gets(details.theatrename);

        printf("Enter the date of movie coming into theatre (DD MM YYYY): ");
        scanf("%d %d %d", &details.start_date, &details.start_month, &details.start_year);

        printf("Enter the date of movie going out from theatre (DD MM YYYY): ");
        scanf("%d %d %d", &details.end_date, &details.end_month, &details.end_year);

        printf("Enter movie name 1: ");
        fflush(stdin); // Clear input buffer
        gets(details.moviename1);
```

CODE

```c
    printf("\nShow 1 is at: ");
    fflush(stdin); // Clear input buffer
    gets(details.showtime1);

    printf("Show 2 is at: ");
    fflush(stdin); // Clear input buffer
    gets(details.showtime2);

    printf("Show 3 is at: ");
    fflush(stdin); // Clear input buffer
    gets(details.showtime3);

    fwrite(&details, sizeof(struct Movie), 1, fp);

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

fclose(fp);
printf("\nYou entered data is stored successfully.\n");
}
```

```c
void list_of_theatres() {
    FILE *fp;

    fp = fopen("ww.bin", "ab+");
    if (fp == NULL) {
        printf("ERROR..! File cannot be opened.\n");
        return;
    }

    while (fread(&details, sizeof(struct Movie), 1, fp) == 1) {
        printf("\n");
        printf("Theatre name: %s\n", details.theatrename);
        printf("RUNNING DAYs    %d-%d-%d TO %d-%d-%d\n", details.start_date, details.start_month, details.start_year, details.end_date, details.end_month, details.end_year);
        printf("Movie name is:%s\n", details.moviename1);
        printf("Show 1 is at %s\t", details.showtime1);
        printf("Show 2 is at %s\t", details.showtime2);
        printf("Show 3 is at %s\t", details.showtime3);
        printf("\n \n");
        printf("--------------------------------------------------------\n");
    }

    fclose(fp);
    }
```

CODE

```c
void movie_available() {
    FILE *fp;
    struct Movie id;
    int searchdate, searchmonth, searchyear;

    printf("Enter the particular date to find the movie (DD MM YYYY): ");
    scanf("%d %d %d", &searchdate, &searchmonth, &searchyear);

    fp = fopen("ww.bin", "rb+");

    if (fp == NULL) {
        printf("ERROR..! File cannot be opened.\n");
        return;
    }

    while (fread(&id, sizeof(struct Movie), 1, fp) == 1) {
        if (id.start_date <= searchdate && searchdate <= id.end_date && id.start_month <= searchmonth && searchmonth <= id.end_month && id.start_year <= searchyear && searchyear <= id.start_year) {
            printf("\nTheatre name: %s", id.theatrename);
            printf("\nMovie name: %s", id.moviename1);
            printf("RUNNING DAYS   %d-%d-%d TO %d-%d-%d\n", details.start_date, details.start_month, details.start_year, details.end_date, details.end_month, details.end_year);
            printf("\nShow 1 is at %s\t", id.showtime1);
            printf("\nShow 2 is at %s\t", id.showtime2);
            printf("\nShow 3 is at %s\t\n", id.showtime3);
            puts("............................................................");
        }
    }

    fclose(fp);
}
```

CODE

```c
void range_of_dates() {
    FILE *fp;
    int startdt, stopdt, startmon, startyr, stopmon, stopyr;
    struct Movie id;

    printf("Enter the start range (DD MM YYYY): ");
    scanf("%d %d %d", &startdt, &startmon, &startyr);
    printf("Enter the stop range (DD MM YYYY): ");
    scanf("%d %d %d", &stopdt, &stopmon, &stopyr);

    fp = fopen("ww.bin", "rb+");

    if (fp == NULL) {
        printf("ERROR..! File cannot be opened.\n");
        return;
    }

    while (fread(&id, sizeof(struct Movie), 1, fp) == 1) {
        if ((startdt >= id.start_date) ){
            printf("\nTheatre name: %s\n", id.theatrename);
            printf("\nMovie name: %s\n", id.moviename1);
            printf("RUNNING DAYs     %d-%d-%d TO %d-%d-%d\n", details.start_date, details.start_month, details.start_year, details.end_date, details.end_month, details.end_year);
            printf("\nShow 1 is at %s\t", id.showtime1);
            printf("\nShow 2 is at %s\t", id.showtime2);
            printf("\nShow 3 is at %s\t", id.showtime3);

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

    fclose(fp);
}
```

INPUT & OUTPUT for
CHOICE 1

```
Enter your choice: 1
Enter the number of theatres: 3

Enter theatre name: IMAX
Enter the date of movie coming into theatre (DD MM YYYY): 22 12 2023
Enter the date of movie going out from theatre (DD MM YYYY): 30 12 2023
Enter movie name 1: SALAAR-THE CEASEFIRE PART-1

Show 1 is at: 2:00PM
Show 2 is at: 6:00PM
Show 3 is at: 10:00PM

------------------------------------------------------------

Enter theatre name: AMB
Enter the date of movie coming into theatre (DD MM YYYY): 22 12 2023
Enter the date of movie going out from theatre (DD MM YYYY): 30 12 2023
Enter movie name 1: DUNKI

Show 1 is at: 10:00AM
Show 2 is at: 2:00PM
Show 3 is at: 10:00PM

------------------------------------------------------------

Enter theatre name: SANDHYA 70MM
Enter the date of movie coming into theatre (DD MM YYYY): 23 12 2023
Enter the date of movie going out from theatre (DD MM YYYY): 30 12 2023
*** Movie tickets booking***
```

INPUT & OUTPUT for
CHOICE 2

```
Enter your choice: 2

Theatre name: IMAX
RUNNING DAYs    22-12-2023 TO 30-12-2023
Movie name is:SALAAR-THE CEASEFIRE PART-1
Show 1 is at 2:00PM    Show 2 is at 6:00PM    Show 3 is at 10:00PM

-----------------------------------------------------------------


Theatre name: AMB
RUNNING DAYs    22-12-2023 TO 30-12-2023
Movie name is:DUNKI
Show 1 is at 10:00AM    Show 2 is at 2:00PM    Show 3 is at 10:00PM

-----------------------------------------------------------------


Theatre name: SANDHYA 70MM
RUNNING DAYs    23-12-2023 TO 30-12-2023
Movie name is:SALAAR THE CEASEFIRE PART-1
Show 1 is at 10:00AM    Show 2 is at 2:00PM    Show 3 is at 6:00PM
```

INPUT & OUTPUT for
CHOICE 3


```
C:\Users\USER\OneDrive\Desktop\folders of project\PROJECT 5.0.exe
Enter the particular date to find the movie (DD MM YYYY): 25 12 2023

Theatre name: IMAX
Movie name: SALAAR-THE CEASEFIRE PART-1
Show 1 is at 2:00PM
Show 2 is at 6:00PM
Show 3 is at 10:00PM
.................................................................

Theatre name: AMB
Movie name: DUNKI
Show 1 is at 10:00AM
Show 2 is at 2:00PM
Show 3 is at 10:00PM
.................................................................

Theatre name: SANDHYA 70MM
Movie name: SALAAR THE CEASEFIRE PART-1
Show 1 is at 10:00AM
Show 2 is at 2:00PM
Show 3 is at 6:00PM
.................................................................
```

INPUT & OUTPUT for
CHOICE 4

```
                         Enter your choice: 4
Enter the start range (DD MM YYYY): 22 12 2023
Enter the stop range (DD MM YYYY): 30 12 2023

Theatre name: IMAX

Movie name: SALAAE-THE CEASE FIRE

Show 1 is at 2:00PM
Show 2 is at 6:00PM
Show 3 is at 10:00PM
------------------------------------------------------------


Theatre name: AMB

Movie name: DUNKI

Show 1 is at 10:00AM
Show 2 is at 2:00PM
Show 3 is at 6:00PM
------------------------------------------------------------
```

DEMONSTRATION

int main()   -   Akash
void add_theatres_data   -   Santhi
void list_of_theatres()   -   Parthiv
void movie_available()   -   Snehith
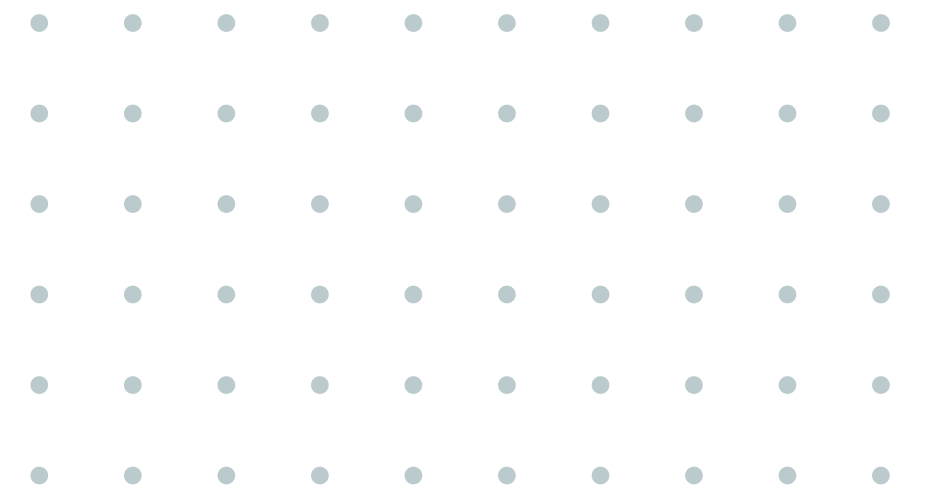void range_of_dates()   -   Krushith

IMPROVEMENTS &CONCLUSION

In addition, we can add the details of selecting:
- Payment methods(Offline or Online)
- Seat numbers

ANY QUESTIONS ?

THANK YOU !