



National university of science and technology(NUST)

Fundamental of programming

Project:

Ticketing management in C language

Name	Reg. No	Viva / Quiz / Lab Performance	Analysis of data in Lab Report
		7 Marks	8 Marks
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Purpose:

Ticketing Incident Management may be defined as a process for logging, recording, and resolving incidents. The main aim of Ticketing Incident Management is to restore the services to the customers with a temporary fix as soon as possible until a permanent solution is provided. The motive of Ticketing Incident Management is to restore normal service performance as soon as possible and to minimize the adverse effects on business operations, ensuring the quality and availability of the service.

By this project of ticketing mechanics we can sell the tickets without mixing the seats of theater and cinema. when can do this work without confines

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Code:

```
#include<string.h>
#include <stdio.h>
#include <time.h>
#include<Windows.h>
#include<stdlib.h>
#define _CRT_SECURE_NO_WARNINGS
#pragma warning (disable : 4101)
# define _CRTIMP declspec(dllimport) void
greeting(void);
```




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```
Sleep(1000);
scanf("%d", &choice);
//choice variable will selection from menu switch
(choice)
{
    //switch to make decision
    case 1:system("cls");
    line_anim(38);
    printf("\n\t*****\n");Sleep(1000);
    printf("\t| Creator Account As: \t\t|\n\t| 1. Admin\t\t\t|\n\t| 2. User \t\t\t|\n\t| 3. Go-to
Main Menu\t\t|\n\t| 3. Exit\t\t\t|");
    Sleep(1000); printf("\n\t***** \n\tEnter your choioce : ");
    Sleep(1000); scanf("%d", &choice);
    //now choice variable will selection either user or admin
    if (choice == 4) close();
    else if (choice == 3)
    {
        system("cls"); main();
    }
    else Create_account(choice);
    break; case 2:system("cls");
```

[illegible]



```

else
Sleep(1000);
}line_anim(38);
printf("\t _____ \n");
Sleep(1200); printf("\t / _ ( ( \\\ ( _ ( \\\ ) /\ ( ( / _ ) / ( _ ) / _ ( \\\ / _ ( ( _ ( \\\ )\n");
Sleep(1200); printf("\t ( _ _ ) ( ) _ ) ( / () \\\ ) ( _ ) ( ( _ ) ( ) _ ) ( \\\ \\\ \\\ /\ _ \\\ ) ( ) _ ) ( \n");
Sleep(1200); printf("\t \\\ _ ( _ ) \\\ ( /\ \\\ \\\ _ ( ) ( ) \\\ _ ( _ ) \\\ ( _ ) ( _ / () ( _ ( /\ \\\ )\n");
Sleep(1200); char subtitle[] = " (: CINEMA TICKET SYSTEM M Huzaifa and Ammar :).....\n ";
printf("\n \t\t\t\t");
txt_anim(subtitle, sizeof(subtitle));
//This prints the title and subtitle
}
//end of greeting function
//this function is used for allocating seats and deallocating seats for customers
int seatno(int mov_no, int select)
{
int i = 0, j = 0;
FILE* ptr; int
seat_no = 0; char
file_nm[10];
sprintf(file_nm, "%d", mov_no);
strcat(file_nm, ".txt");
ptr = fopen(file_nm, "r");
int array[10][10];
if (ptr == NULL)
{
for (i = 0; i < 10; i++)
for (j = 0; j < 10; j++)
{
if (i == 0)array[i][j] = j + 1;
else array[i][j] = (10 * i) + (j
+ 1);
}
}
else
{
for (i = 0; i < 10; i++)
{
for (j = 0; j < 10; j++)
fscanf(ptr, "%7d", &array[i][j]);
fscanf(ptr, "\n"); }fclose(ptr);
}if (select == 0)
{ printf("\n\t\t\t\t S C R E E N");
Sleep(100); printf("\n\t\t\t\t |
| | | |\n"); Sleep(100);
for (i = 0; i < 10; i++)
{
for (j = 0; j < 10; j++)

```



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```
{ if (array[i][j] == 0)
printf(" **");
else printf(" %7d", array[i][j]);
}
printf("\n\n");
Sleep(50);
}char head[] = "\n\tPositions shown with ** are already reserved.\n\tSelect Seat.NO from
non-reserved seats: "; txt_anim(head, sizeof(head)); Again: scanf("%d", &seat_no); i = (seat_no
/ 10); j = (seat_no % 10) - 1; if (array[i][j] == 0)
{
printf("\t!! Seat no : %d is alread reserved.\n\tPlease select again : ", seat_no);
goto Again;
}
array[i][j] = 0;
}
else {
i = (select / 10); j = (select % 10) - 1; array[i][j] = select;
}
ptr = fopen(file_nm, "w");
for (i = 0; i < 10; i++) { for (j =
0; j < 10; j++) fprintf(ptr, "
%7d ", array[i][j]); fprintf(ptr,
"\n");
}fclose(ptr); return seat_no; }
//but_ticket function can be called directly from main meny or after login as user.
void buy_ticket(int select)
{
system("cls");
FILE* ptr; char
c;
int num = 0, sno, seat;
char ch; float price = 0.0; char head1[] = "\n\n\tChoose From
Above Movie S.Numbers : ";
ptr = fopen("Movies.txt", "a+"); char head[] = "\nS.No TYPE OF MOVIE NAME OF MOVIE
DATE TIME PRICE(IN RUPESS).\n"; txt_anim(head, sizeof(head)); line_anim(30);
while ((ch = fgetc(ptr)) != EOF)
{ printf("%c", ch);
if (ch == '\n')
Sleep(100);
}
line_anim(30);
if (select == 1)
{ system("PAUSE"); admin_menu();
} fclose(ptr); ptr =
fopen("Movies.txt", "r");
fseek(ptr, 0, SEEK_END);
if (ftell(ptr) == 0)
{
```



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```
printf("\n\tTheir is no movie in cinema right-now\n\tPlease ask Admin to ADD
Movies.##\n");
system("PAUSE");
system("cls");
int main();
}
else
{
    rewind(ptr);
    txt_anim(head1, sizeof(head1));
    scanf("%d", &sno);
    for (c = getc(ptr);
    c != EOF;
    c = getc(ptr))
    {
        if (c == '\n')
            // Increment count if this character is
            num = num + 1;
        if (num == sno - 1)
            break;
    }
    if (select == 0)
    {
        //if function is called directly to buy ticket from main menu
        printf("\tENTER YOUR NAME : "); getc(stdin); fgets(name1,
        20, stdin);
    }
    seat = seatno(sno, 0);
    system("PAUSE");
    struct book ;
    fscanf(ptr, "%*5d. %15s %20s ", &mtype, &mname);
    fscanf(ptr, "%10s %13s %14d \n", &mday,& mtime,
    &fee); price = (float)fee; if (select == 2)
        //discount if called from user
        price = 0.7 * price;
    system("cls"); printf("\n\n"); time_t t; time(&t); printf("\t-----
-----TICKET BOOKING RECEIPT-----\n"); line_anim(24);
    printf("\n\tTICKET BOOKING DETAILS : %s \n", ctime(&t));
    Sleep(200);
    printf("\t Movie Name : %20s Movie No : %d \n",mname, sno);
    Sleep(200); printf("\t Movie Type : %20s Customer Name : %s\n",
    mtype, name1); Sleep(200);
    printf("\t Movie Time : %20s Seat Number : %d\n", mtime, seat);
    Sleep(200);
    printf("\t Movie Date : %20s \n\n", mday);
    Sleep(200);
    if (select == 0)
    {
```



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```
printf("\t\t\t\t price : %.2f", price);
Sleep(200);
line_anim(24);
system("PAUSE");
system("cls");
int main(); }
if (select == 2)
{
    printf("\t %s You are logged-in \t \tPrice 30%% OFF : %.2f",name1,
    price); Sleep(200); line_anim(24); system("PAUSE"); system("cls");
    user_menu();
}
}
}

void addMov() { int num = 1; char c; struct book; char op;
FILE* fp; char title[] = "\t!! NOTE fill all fields without
space.\n";
    txt_anim(title, sizeof(title));
    printf("\n Enter Name of Movie : ");
    scanf("%s", &mname);
    printf(" Enter type Movie :
");
    scanf("%s", &mtype);
    printf("Enter Movie Schedule (DD:MM:YYYY) : ");
    c = getc(stdin); scanf("%s", &mday);
    printf(" Enter Time (eg hh:mm AM ) : ");
    scanf("%s", &mtime); printf("
Enter Ticket Prize : ");
    scanf("%d", &fee);
    fp = fopen("Movies.txt", "a+");
    //above lines just input the required ditails for movie
rewind(fp); for (c = getc(fp); c != EOF; c = getc(fp))
    if (c == '\n')
        // Increment count if this character is newline
        num = num + 1;
    //num+1 is the 1 more than the total no of movies already present in data fprintf(fp, "%5d.
%15s %20s ", num,mtype, mname); fprintf(fp, "%10s %13s %14d \n", mday, mtime, fee);
    //now inpute fiels are entered in the fil
    printf("\n\tRecord insert sucessful!");
    line_anim(38);
    fclose(fp); do { printf("\n\tAdd another record
(y/n)? : ");
    c = getc(stdin);
    scanf("%c", &op);
    switch (op)
    {
        case 'y':printf("\n");
        addMov(); case 'n':printf("\n"); admin_menu();
```




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```
default:printf("Please select (y) or (n)! \n");
}
}
while (op != 'n');
admin_menu();
}
int authentication(int select)
{ char password[20], tempname[30], check_pass[20]; unsigned
int length;
printf("\tENTER YOUR NAME : "); getc(stdin);
fgets(name1, sizeof(name1), stdin);
strcpy(tempname, name1); length =
strlen(tempname); if (select == 1)
strcat(tempname, " admin");
strcat(tempname, ".txt");
FILE* ptr;
if ((ptr = fopen(tempname, "r")) == NULL)
{
    //to check if the account exist printf("\t!!This user/admin account does Not
    exist.\n Press any key to continue");
    getchar();
    return 0;
}
else
{
    //if files exist than it inputs the
    password fclose(ptr); printf("\tEnter
    Password : "); Again:
    scanf("%s", password); ptr =
    fopen(tempname, "a+");
    fseek(ptr, -20, SEEK_END);
    fscanf(ptr, "%s", check_pass);
    if (strcmp(password, check_pass) != 0)
    {
        printf("\t!!Password does not matche.\n \tENTER AGAIN:\t");
        goto Again;
    }
}
rewind(ptr);
//this function brings the curser in the file to the start of file
fclose(ptr);
return 0;
}
void Create_account(int select)
{ char name[20], password[20], choose, tempname[30];
char admin_pass[20] = "Welcome";
printf("\tENTER YOUR NAME: ");
getc(stdin); fgets(name,
sizeof(name), stdin);
```



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```
//this line input name
strcpy(tempname, name);
if (select == 1)
{
    //if account is created for admin
    strcat(tempname, " admin");
    //then admin is also concatenated with the name
    pass:
//as admin has to be given more authorities
printf("\tEnter Admin authentication password: ");
scanf("%s", password);
if ((strcmp(password, admin_pass)) != 0)
{
    printf("\t!!Admin password not matched.!!\n\tWant to re- enter password (y/n): ");
    getc(stdin); scanf("%c", &choose);
    if (choose == 'y') goto pass; return;
}
}
printf("\tENTER your password: ");
scanf("%s", password);
strcat(tempname, ".txt");
FILE* ptr; strcat(name, " "); ptr
= fopen(tempname, "a+");
//now txt file is created either for admin or user
fputs(name, ptr);
//in these lines names and password are saved to file
fprintf(ptr, " %20s", password);
fclose(ptr);
char title[] = "Your Account has been created";
txt_anim(title, sizeof(title));
line_anim(38);
system("cls");
return;
}
//the logic used is that new password is just written at the last 20 spaces of each respective
account file
//and authentication picks the last 20 space of account file as a password.
void change_pass(int select)
{
    line_anim(38);
    char file_name[30], new_pass[35];
    strcpy(file_name, name1);
    if (select == 1)
        strcat(file_name, " admin");
    strcat(file_name, ".txt"); printf("\n\t%s, enter
new password :: ", name1); scanf("%s",
new_pass);
    printf("\n\tPassword changed successfully\n");
```



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```
system("PAUSE");
FILE* ptr = fopen(file_name, "a+");
fprintf(ptr, " %20s", new_pass);
fclose(ptr);
if (select == 1)
    admin_menu();
else if (select == 2) user_menu();
}
//this menu just decide and direct the control to other functions accordingly
void admin_menu()
{
    system("cls");
    int choice = 0;
    char c;
    char title[25];
    printf("\n\n\t*****\n");
    Sleep(500);
    printf("\t|You are Login-in as admin: \t|\n\t| 1. Add Movies\t\t\t|\n\t| 2. Show all Movies\n\t\t\t|\n\t| 3. Delete Movies \t\t\t|\n\t| 4. Log-out \t\t\t|\n\t| 5. Change password\t\t\t|\n\t| 6.\n\t\t\t|");
    Exit\t\t\t|");
    Sleep(500); printf("\n\t***** \n\tEnter your
    choioce : ");
    Sleep(500); scanf("%d", &choice);
    switch (choice) {case 1:addMov();
    break;
    case 2:buy_ticket(1);
    //this function only shows administrator movie
    break; case 3:system("cls");
    char itl[] = "Note :: !!ALL THE MOVIES WILL BE DELETED\n\t Do you stil want to delete (y/n):
    "; txt_anim(itl, sizeof(itl)); do {
        getc(stdin); scanf("%c",
        &c);
    switch (c)
    { case 'y':remove("Movies.txt");
    printf("\tDeleted Movies Successfully : \n");
    break; case 'n':break; default:
    printf("Please select (y) or (n)! ");
    }
    }
    while (c != 'n' && c != 'y'); system("PAUSE");
    admin_menu();
    case 4:system("cls");
    char title[] = "YOU ARE LOGGED-OUT SUCCESFULLY";
    txt_anim(title, sizeof(title)); int main();
    case 5:change_pass(1); break; case
    6:close(); default:printf("\t!!Selection
    out of list.");
```



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```
Sleep(1500);
break;
}
return;
}
//this menu just decide and direct the control to other functions accordingly void
user_menu()
{
    system("cls");
    line_anim(38);
    int choice = 0, seat = 0;
    printf("\n\n\t*****\n");
    Sleep(500); printf("\t| You are Login-in as User: \t|\n\t| 1. Buy Movie ticket\t\t|\n\t| 2.
    Return Movie
    ticket \t|\n\t| 3. Change password \t\t|\n\t| 4. Log-out\t\t\t|\n\t| 5. Exit\t\t\t|");
    Sleep(500); printf("\n\t***** \n\tEnter your
    choioce : ");
    Sleep(500); scanf("%d", &choice);
    switch (choice)
    {
        case 1:buy_ticket(2); case 2:printf("\t%s Please Enter movie
        number : ", name1); scanf("%d", &choice); printf("\t%s
        Please Enter Seat number : ", name1, seat);
        scanf("%d", &seat); seatno(choice, seat);
        printf("\t%s, your Seat No %d for Movie No: %d has been cancelled. \n", name1,seat,
        choice); system("PAUSE");
        system("cls");
        user_menu(); case
        3:change_pass(2);
        //the control is again directed to the user menu after changing
        passowrd case 4:system("cls"); main();
        case 5:close();
        default:break;
    }
}

void line_anim(int num)
{ printf("\n");
  for (int i = 0; i < num; i++)
  { printf("+-");
    Sleep(80);
  }printf("\n");
}void txt_anim(char* ptr, int size)
{
for (int i = 0; i < size; i++)
{
    printf("%c", ptr[i]); Sleep(60);
}
}
return 0;
```



```
}
void close(void) {
    printf("\t!!Existing program\n");
    system("PAUSE");
    exit(0);
}
//The End:
```

Results:

Create Account:

[illegible]

As Admin:



```
*****
| Creator Account As:      |
| 1. Admin                 |
| 2. User                  |
| 3. Go-to Main Menu      |
| 3. Exit                  |
*****
Enter your choioce : 1
ENTER YOUR NAME: M Huzaiifa
Enter Admin authentication password: Welcome
ENTER your password: WELCOME
Your Account has been created
+-----+

```

Login Account:

```
+-----+
|-----|
| MAIN MENU ##            |
| 1. Create Account       |
| 2. Log-in               |
| 3. Buy Ticket Without-login |
| 4. Exit                 |
|-----|
|-----|
Enter YOUR CHOICE :: 2_

```

Enter the Username:





```
*****
|You are Login-in as admin: |
| 1. Add Movies             |
| 2. Show all Movies        |
| 3. Delete Movies          |
| 4. Log-out                |
| 5. Change password        |
| 6. Exit                   |
|*****|
Enter your choioce : 1
!! NOTE fill all fields without space.

Enter Name of Movie : 3idiots
Enter type Movie : Eductional
Enter Movie Schedule (DD:MM:YYYY) : 19:10:2022
Enter Time (eg hh:mm AM ) : 09:00
Enter Ticket Prize : 250

Record insert sucessful!
+-----+
Add another record (y/n)? : 2
Please select (y) or (n)!

Add another record (y/n)? : 3
Please select (y) or (n)!

Add another record (y/n)? : y
!! NOTE fill all fields without space.

Enter Name of Movie : kingsman
Enter type Movie : English
Enter Movie Schedule (DD:MM:YYYY) : 20:10-2022
Enter Time (eg hh:mm AM ) : 10:00
Enter Ticket Prize : 250

Record insert sucessful!
+-----+
Add another record (y/n)? : n
```



Exit:

```
*****
|You are Login-in as admin: |
| 1. Add Movies             |
| 2. Show all Movies        |
| 3. Delete Movies          |
| 4. Log-out                |
| 5. Change password        |
| 6. Exit                   |
|*****|
Enter your choioce : 6
!!Existing program
Press any key to continue . . .

-----
Process exited after 324.8 seconds with return value 0
Press any key to continue . . .
```

Buying Ticket:

[illegible]

Movie seats:

```

S.No TYPE OF MOVIE NAME OF MOVIE DATE TIME PRICE(IN RUPESS).
-----
1.      Educational      3idiots 19:10:2022      09:00      250
2.      English      kingsman 20:10-2022      10:00      250
-----

Choose From Above Movie S.Numbers : 1

          S C R E E N
          | | | | |
1         2         3         4         5         6         7         8         9        10
11        12        13        14        15        16        17        18        19        20
21        22        23        24        25        26        27        28        29        30
31        32        33        34        35        36        37        38        39        40
41        42        43        44        45        46        47        48        49        50
51        52        53        54        55        56        57        58        59        60
61        62        63        64        65        66        67        68        69        70
71        72        73        74        75        76        77        78        79        80
81        82        83        84        85        86        87        88        89        90
91        92        93        94        95        96        97        98        99        100

Positions shown with ** are already reserved.
Select Seat.NO from non-reserved seats: 2
Press any key to continue . . .

```

Ticket with Discount:



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```
-----TICKET BOOKING RECEIPT-----
+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+
TICKET BOOKING DETAILS : Mon Dec 19 08:43:38 2022

Movie Name :          3idiots Movie No : 1
Movie Type :          Eductional Customer Name : m huzaifa

Movie Time :          09:00 Seat Number : 2
Movie Date :          19:10:2022

m huzaifa
You are logged-in          Price 30% OFF : 175.00
+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+
Press any key to continue . . . █
```

Cancelled the Seat:

```
+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+
*****
|You are Login-in as User:      |
| 1. Buy Movie ticket           |
| 2. Return Movie ticket        |
| 3. Change password            |
| 4. Log-out                    |
| 5. Exit                       |
*****
Enter your choioce : 2
m huzaifa
Please Enter movie number : 1
m huzaifa
Please Enter Seat number : 2
m huzaifa
your Seat No 2 for Movie No: 1 has been cancelled.
Press any key to continue . . . █
```

Logout Account:



```
+-----+
*****
|You are Login-in as User: |
| 1. Buy Movie ticket     |
| 2. Return Movie ticket  |
| 3. Change password      |
| 4. Log-out              |
| 5. Exit                 |
|                         |
*****
Enter your choioce : 4
```

By Ticket as Guest:

```
LOG-IN, And GET 30% DISSCOUNT
+-----+
-----
|      MAIN MENU ##      |
| 1. Create Account      |
| 2. Log-in              |
| 3. Buy Ticket Without-login |
| 4. Exit                |
|                        |
-----
Enter YOUR CHOICE :: 3_
```

Book the Seat:



Ticket of movie as guest:

[illegible]



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Conclusion:

Ticketing Management System assists you to find issues and analyze them more, identifying the root causes of problems that may affect your business productivity. The system enables to capture and management requests in a consistent manner so that the authorities can pay more attention to solving issues. An **incident management system** enables effective handoff of issues among the teams and its effective scaling. The data and metrics generated by the ticketing management system are essential for management in decision making about efficiency, process improvements, and managing the operational costs.

Best of luck.....