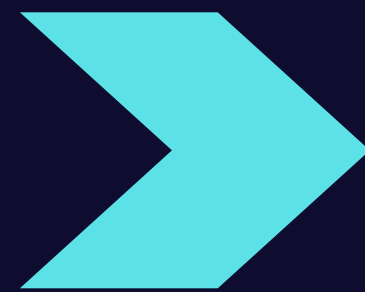


CTP MINI PROJECT



Bus ticket booking system

**Team
members :**

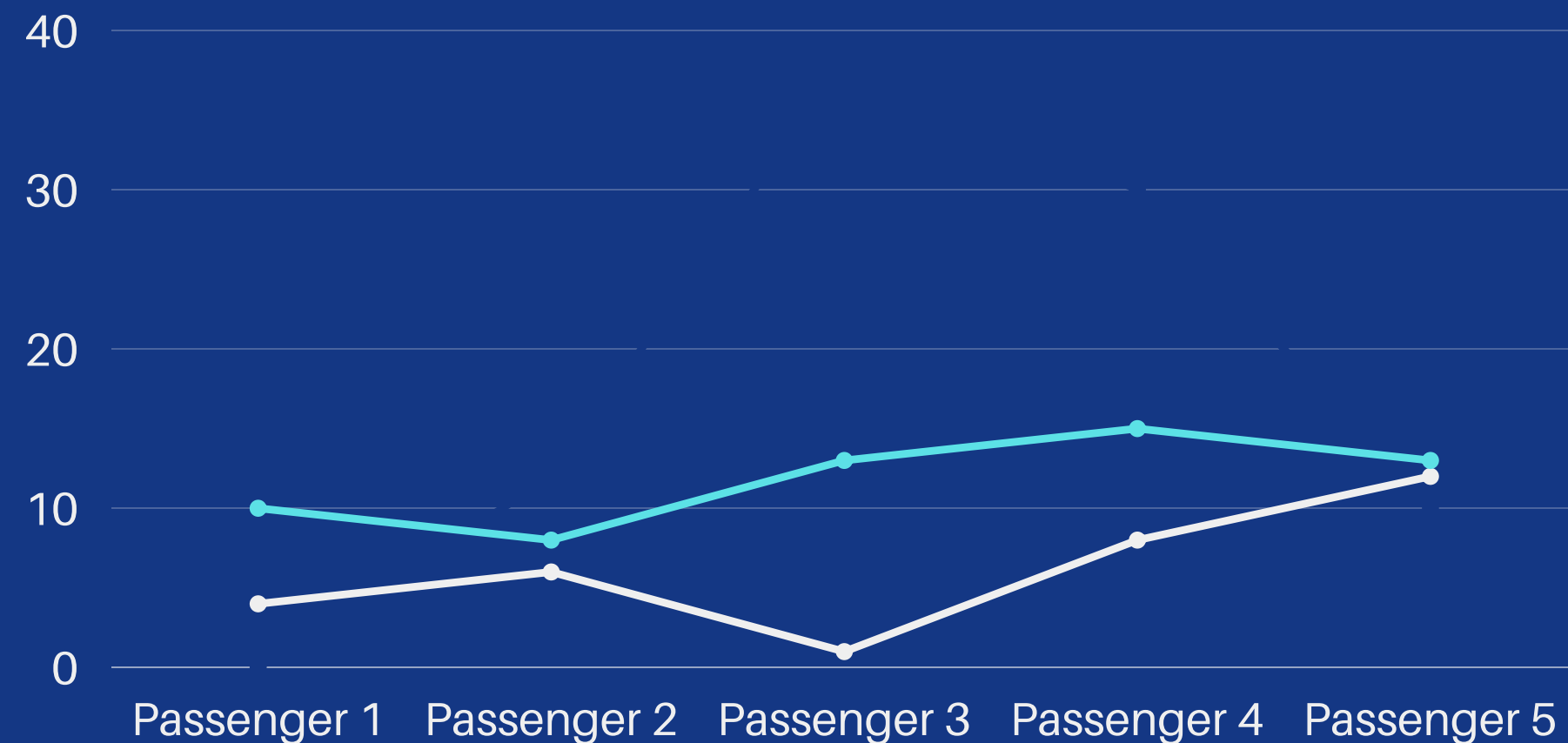
KIRANMAYE-LCS2021022

SREEHAS-LCS2021040



Programming a bus ticket booking machine code

Problem statement



Bus moves from stop 1 to stop 15 and let with the capacity of 10 passengers i.e atmost bus contains 10 passengers between any 2 destinations and passengers can travel between any 2 stops.the machine will checks whether there is capcity for that passnger for their stops and also it will calculate the cost of whole journey travelled by each passenger

**Motivation is to make
comfortable for
passengers to book
tickets**



Tentative solution



Authorisation

User have to enter password to login using if else statement for checking entered password is correct

Destination

taking input of start and destination and checking if they are valid

Passenger limit

Checking if passenger limit is exceeded by taking a variable for passenger count and comparing it with passenger limit

Price

After taking input from passenger calculating the price of ticket and change to be given



Code:

```
1  #include<stdio.h>
2  #include<math.h>
3  int main(){
4      printf("Enter the password:");
5      int password;//password=4022
6      scanf("%d",&password);
7      if(password==4022){
8          int t=60,n;
9          //n=no of passengers that board on bus
10         printf("\n");
11         while (t--)
12             printf("*");
13         printf("BUS TICKET booking MACHINE");
14         t=60;
15         while(t--)
16             printf("*");
17         printf("\nThe destination of bus should be between 1 to 15\n\n");
18         //let bus capacity be 10.
```



```
18 //let bus capacity be 10.
19 int bc=10;
20 printf("\nEnter the price of ticket between two stops:");
21 float cost;
22 scanf("%f",&cost);
23 printf("\nEnter the total passengers that board on bus :");
24 scanf("%d",&n);
25 int arr[16]={0};
26 //arr is for no of passengers at that time.
27 for(int i=0;i<n;i++){
28     int x,y;
29     int limitexceed=0;
30     printf("Enter the stop where %d st/nd/rd/th passenger starts and leaves :",i+1);
31     scanf("%d %d",&x,&y);
32     if(x>0 && y<=15 ){
33         for(int j=x;j<=y;j++){
34             if(arr[j]>=bc){
35                 printf("passenger limit exceeded :(\n\n");
```

```
32     if(x>0 && y<=15 ){
33         for(int j=x;j<=y;j++){
34             if(arr[j]>=bc){
35                 printf("passenger limit exceeded :(\n\n");
36                 limitexceed=1;
37                 break;
38             }
39         }
40         if(limitexceed==1) {continue;}
41         for(int j=x;j<=y;j++){
42             arr[j]++;
43         }
44
45         float price=cost*(y-x);
46         printf("The cost of whole journey by passenger is:%f\n",price);
47         printf("Enter the amount given by passenger:");
48         float pamount;
49         scanf("%f",&pamount);
```

```
48     float pamount;
49     scanf("%f",&pamount);
50     if(pamount<price)
51         printf("Money given by passenger is insufficient and he has to pay %f more\n\n",
52             else
53             printf("The remaining amount to be given to passenger :%f\n\n",pamount-price);
54     }
55     else{
56         printf("Sorry :( but there were only 15 stops\n\n");
57     }
58 }
59 }
60 else
61     printf("Your password is incorrect");
62 }
```

Output 1:

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

 Code     

Windows PowerShell

Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! <https://aka.ms/PSWindows>

```
PS C:\Users\lenovo\Desktop\c c++> cd "c:\Users\lenovo\Desktop\c c++\" ; if ($?) { gcc miniproject2.c -o miniproject2 } ; if ($?) { .\miniproject2 }
```

Enter the password:1234

Your password is incorrect

```
PS C:\Users\lenovo\Desktop\c c++> █
```

Output 2:

```
PS C:\Users\lenovo\Desktop\c c++> cd "c:\Users\lenovo\Desktop\c c++\" ; if ($?) { gcc miniproject2.c -o miniproject2 } ; if ($?) { .\miniproject2 }  
Enter the password:4022
```

```
*****BUS TICKET booking MACHINE*****
```

```
The destination of bus should be between 1 to 15
```

```
Enter the price of ticket between two stops:20
```

```
enter the total passengers that board on bus :5
```

```
Enter the stop where 1 st/nd/rd/th passenger starts and leaves :1 8
```

```
The cost of whole journey by passenger is:140.000000
```

```
Enter the amount given by passenger:790
```

```
The remaining amount to be given to passenger :650.000000
```

```
Enter the stop where 2 st/nd/rd/th passenger starts and leaves :4 6
```

```
The cost of whole journey by passenger is:40.000000
```

```
Enter the amount given by passenger:50
```

```
The remaining amount to be given to passenger :10.000000
```

```
Enter the stop where 3 st/nd/rd/th passenger starts and leaves :2 8
```

```
The cost of whole journey by passenger is:120.000000
```

```
Enter the amount given by passenger:100
```

```
Money given by passenger is insufficient and he has to pay 20.000000 more
```

```
Enter the stop where 4 st/nd/rd/th passenger starts and leaves :3 15
```

```
The cost of whole journey by passenger is:240.000000
```

```
Enter the amount given by passenger:250
```

```
The remaining amount to be given to passenger :10.000000
```

```
Enter the stop where 5 st/nd/rd/th passenger starts and leaves :4 6
```

```
passenger limit exceeded :(
```

```
PS C:\Users\lenovo\Desktop\c c++> █
```

Conclusion

Simple Bus Reservation System is based on the concept of reserving bus seats for passengers. This mini project contains limited features, but the essential one. 😊

Thank you!