CP Assignment 01

Name:	Syed Muhammad Raza Ali
Enrolment:	02-134231-028
Course:	CP
Faculty:	Miss Azeema

Assignment N0. 01

Submission Due Date: 26-March-2023

Marks 05

Instructions (Any): Submit soft copy on LMS

Question#1   **CLO2, PLO3, BTL3**

You are supposed to make a simple bus ticketing system by applying basic programming concepts such as loops /conational statements. Your system must show ticket prices for at least three routes. The application should have following properties

- Sow ticket prices for three different routes.
- If user wish to book a ticket, ask customer's personal information such as name and NIC customer. Store name and NIC number in two different arrays. Name should be in string array and NIC should be in integer array
- If customer's age is below 18 than he or she is not allowed to book a ticket else ask user to choose one route.
- After selection of route show its charges or ticket price to customer and ask for confirmation.
- If customer confirms than generate a ticket for that particular user.
- System must have option to search a specific customer by his/ her name and display its NIC number
- There must be an option to delete a specific customer

Code:

```cpp
#include <iOStream>
#include <string>
using namespace std;

int main() {

    char mainChoice, tiketBooking, routeChoice, bookingChoice,loopChoice;
    string customerName, name[5], searchName, delName;
    int CNIC[5],age, customerCNIC;
    int i = 0;
    bool flag, flag2 = false;


    do
    {
    cout << "Press '1' to book a Ticket" << endl
    << "Press '2' to Search a customer" << endl
    << "Press '3' to Delete a customer" << endl;
    cin >> mainChoice;

    if (mainChoice == '1') {

    cout << "Enter your age" << endl;
    cin >> age;

    if (age >= 18) {
    do {
    cout << "The Routes we are offering are:" << endl
    << "Route 1 --- Malir Halt to Gulshan-e-Iqbal (Ticket = 300rs)" << endl
    << "Route 2 --- Gulshan-e-Hadeed to DHA (Ticket = 450rs)" << endl
    << "Route 3 --- Stargate to Super Highway (Ticket = 200rs)" << endl;
    cout << endl;
    cout << "Press a to book ticket for Route 1" << endl
    << "Press b to book ticket for Route 2" << endl
    << "Press c to book ticket for Route 3" << endl;
    cin >> routeChoice;

    if (routeChoice == 'a') {
    cout << "Enter your name:" << endl;
    cin >> name[i];
    cout << "Enter your CNIC no:" << endl;
    cin >> CNIC[i];
    cout << "The Ticket price for Route 1 is 300rs, Do you want to book
    ticket?" << endl
    << "Press 'y' for Yes and 'n' for No" << endl;
    cin >> tiketBooking;
    if (tiketBooking == 'y') {
    cout << "Ticket Booked succesfully :)" << endl;
```

```cpp
        }
        else {
        cout << "No ticket booked " << endl;
        }
    }

    else if (routeChoice == 'b') {
        cout << "Enter your name:" << endl;
        cin >> name[i];
        cout << "Enter your CNIC no:" << endl;
        cin >> CNIC[i];
        cout << "The Ticket price for Route 2 is 450rs, Do you want to book
        ticket?" << endl
        << "Press 'y' for Yes and 'n' for No" << endl;
        cin >> tiketBooking;
        if (tiketBooking == 'y') {
        cout << "Ticket Booked succesfully :)" << endl;
        }
        else {
        cout << "No ticket booked " << endl;
        }
    }

    else if (routeChoice == 'c') {
        cout << "Enter your name:" << endl;
        cin >> name[i];
        cout << "Enter your CNIC no:" << endl;
        cin >> CNIC[i];
        cout << "The Ticket price for Route 3 is 200rs, Do you want to book
        ticket?" << endl
        << "Press 'y' for Yes and 'n' for No" << endl;
        cin >> tiketBooking;
        if (tiketBooking == 'y') {
        cout << "Ticket Booked succesfully :)" << endl;
        }
        else {
        cout << "No ticket booked " << endl;
        }
    }

    else {
        cout << "Invalid choice :(" << endl;
    }

    cout << "Press 'b' if you want to book anoter ticket (Press any other
    key to exit)" << endl;
    cin >> bookingChoice;
    i++;
    } while (bookingChoice == 'b');
}
```

```cpp
    else {
    cout << "You are not able to book a ticket as youre age is less than
    18";
    }
    }

    else if (mainChoice == '2') {
    cout << "Enter the customers name you want to search for: " << endl;
    cin >> searchName;
    int j;
    for ( j = 0; j < 5; j++) {
    if (name[j] == searchName) {
    flag2 = true;
    cout << searchName << " found at index no " << j << ". The CNIC no of
    this " << CNIC[j] << endl;
    name[j] = searchName;

    }
    }
    if (flag2 == false) {
    cout << "The customer you searched for doesn't exist" << endl;
    }
    }

    else if (mainChoice == '3') {
    int j;
    cout << "Do you want to delete any customer:";
    cin >> delName;
    for (int i = 0; i < 5; i++) {
    if (delName == name[i]) {
    flag = true;

    for (j = 0; j < 5-1; j++) {
    name[j] = name[j + 1];
    break;
    }
    }
    }if (flag == false) {
    cout << "Not found:";
    }
    else {
    name[j + 1] = " ";
    cout << "Customer deleted:";
    }break;
    }
    cout << "Press y to return to the main menu (Press any other key to
    quit)" << endl;
    cin >> loopChoice;
    } while (loopChoice == 'y');
    return 0;}
```

Output:

```
Press '1' to book a Ticket
Press '2' to Search a customer
Press '3' to Delete a customer
1
Enter your age
19
The Routes we are offering are:
Route 1 --- Malir Halt to Gulshan-e-Iqbal (Ticket = 300rs)
Route 2 --- Gulshan-e-Hadeed to DHA (Ticket = 450rs)
Route 3 --- Stargate to Super Highway (Ticket = 200rs)

Press a to book ticket for Route 1
Press b to book ticket for Route 2
Press c to book ticket for Route 3
a
Enter your name:
raza
Enter your CNIC no:
2371982
The Ticket price for Route 1 is 300rs, Do you want to book ticket?
Press 'y' for Yes and 'n' for No
y
```

```
y
Ticket Booked succesfully :)
Press 'b' if you want to book anoter ticket (Press any other key to exit)
b
The Routes we are offering are:
Route 1 --- Malir Halt to Gulshan-e-Iqbal (Ticket = 300rs)
Route 2 --- Gulshan-e-Hadeed to DHA (Ticket = 450rs)
Route 3 --- Stargate to Super Highway (Ticket = 200rs)

Press a to book ticket for Route 1
Press b to book ticket for Route 2
Press c to book ticket for Route 3
c
Enter your name:
ali
Enter your CNIC no:
73298
The Ticket price for Route 3 is 200rs, Do you want to book ticket?
Press 'y' for Yes and 'n' for No
y
Ticket Booked succesfully :)
Press 'b' if you want to book anoter ticket (Press any other key to exit)
o
```

```
o
Press y to return to the main menu (Press any other key to quit)
y
Press '1' to book a Ticket
Press '2' to Search a customer
Press '3' to Delete a customer
2
Enter the customers name you want to search for:
raza
raza found at index no 0. The CNIC no of this 2371982
Press y to return to the main menu (Press any other key to quit)
y
Press '1' to book a Ticket
Press '2' to Search a customer
Press '3' to Delete a customer
3
Do you want to delete any customer:
ali
Customer deleted:Press y to return to the main menu (Press any other key to quit)
y
Press '1' to book a Ticket
Press '2' to Search a customer
Press '3' to Delete a customer
```