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Roll Number: SYCOC303 Division: C

PRN Number: 122B2B303 Batch: C4

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Problem Statement:

➔ Set A of customers like pizza and set B of customers like a burger. Write a C ++ program to store two sets using an array. Compute and display:

a. Set of customers who like either pizza or burger or both

b. Set of customers who like both pizza and burger.

c. Set of customers who like only pizza, not burger.

d. Set of customers who like only burger not pizza.

e. Number of customers who like neither pizza nor burger.

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INPUT:

```
/*
 *     ====================================
 *            Program Name: PizzaBurgerSET.cpp
 *     Created on: December 22, 2022
 *       Author: Vinayak Shete
 *  ====================================
 */


 #include <iostream>
using namespace std;
class Customer
{
    public:
    void wholikespizza(char pizza[], int n)
    {
        cout << "\n";
```

```
        cout<<"\n==================PIZZA==================";
        for (int i = 0; i < n; i++)
        {
            cout<<"\nDoes Customer "<<i+1<<" like PIZZA [YES(y) OR NO(n)]: ";
            cin>>pizza[i];
        }
        cout << "\n";
    }
    void wholikesburger(char burger[], int n)
    {
        cout<<"\n\n==================BURGER==================";
        for (int i = 0; i < n; i++)
        {
            cout<<"\nDoes Customer " <<i+1<<" like BURGER [YES(y) OR NO(n)]: ";
            cin>>burger[i];
        }
        cout << "\n";
    }
};
int main()
{
    Customer c;
    int n;
    cout<<"\nEnter the number of customers you want? ";
    cin>>n;

    char pizza[n];
    char burger[n];
    c.wholikespizza(pizza,n);
    c.wholikesburger(burger,n);
    int pcounter=0;
    int bcounter=0;
    int bothcounter=0;
    int pub;
    int ch;
    for(int i=0;i<n;i++)
            {
```

```
                    if(pizza[i]=='y'&&burger[i]=='y')
                        bothcounter++;
                    if(pizza[i]=='y')
                        pcounter++;
                    if(burger[i]=='y')
                        bcounter++;
            }
            pub=(pcounter+bcounter)-bothcounter;
            cout<<"\nA) Set of customers who like either pizza or burger or both:
"<<pub;
            cout<<"\n\nB) Set of customers who like both pizza and burger:
"<<bothcounter;
            cout<<"\n\nC) Set of customers who like only pizza, not burger:
"<<pcounter;
            cout<<"\n\nD) Set of customers who like only burger not pizza:
"<<bcounter;
            cout<<"\n\nE) Set of customers who like neither pizza nor burger: "<<n-
pub;


}
```

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OUTPUT:

```
Enter the number of customers you want? 5


==================PIZZA===================
Does Customer 1 like PIZZA [YES(y) OR NO(n)]: y

Does Customer 2 like PIZZA [YES(y) OR NO(n)]: n

Does Customer 3 like PIZZA [YES(y) OR NO(n)]: y

Does Customer 4 like PIZZA [YES(y) OR NO(n)]: y

Does Customer 5 like PIZZA [YES(y) OR NO(n)]: n



==================BURGER==================
Does Customer 1 like BURGER [YES(y) OR NO(n)]: n

Does Customer 2 like BURGER [YES(y) OR NO(n)]: y

Does Customer 3 like BURGER [YES(y) OR NO(n)]: y

Does Customer 4 like BURGER [YES(y) OR NO(n)]: n

Does Customer 5 like BURGER [YES(y) OR NO(n)]: n


A) Set of customers who like either pizza or burger or both: 4

B) Set of customers who like both pizza and burger: 1

C) Set of customers who like only pizza, not burger: 3

D) Set of customers who like only burger not pizza: 2

E) Set of customers who like neither pizza nor burger: 1
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Process exited after 25.64 seconds with return value 0
Press any key to continue . . .
```

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