



**Green University of Bangladesh**  
**Department of Computer Science and Engineering(CSE)**  
**Faculty of Sciences and Engineering**  
**Semester: (Summer, Year:2022), B.Sc. in CSE (Day)**

**PROJECT REPORT**  
**Course Title: Data Structure Lab**  
**Course Code: CSE 106 Section: DB**

**Student Details**

Name		ID
1.	Shariful Islam Emon	213902056

**Submission Date : 10/09/2022**

**Course Teacher's Name : Farhana Akter Sunny**

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**Lab Report Status**

**Marks: ..... Signature:.....**

**Comments:..... Date:.....**

**1. TITLE OF THE PROJECT EXPERIMENT**

# Census of Population Management Method

## 2. Introduction:

Census of population defines as the total process of collecting, compiling and social data pertaining to a specific time to all persons in a country. Each individual is enumerated separately; the characteristics of each person within the household are recorded separately. The census covers a precisely defined territory and includes every person present or residing within its scope. The housing census should include every type of building and living quarters. Each person and each type of building and living quarters is enumerated with respect to a well defined point of time.

## 3. IMPLEMENTATION

Code:

```
// C program for the implementation of
// Census of Population Management Method.
// source Code prepared by Shariful Islam Emon
// Dept. of CSE, 213902056
// Green University of Bangladesh
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
#include<conio.h>
struct People
{
    long int reg;
    char phn[20];
    char name[50];
    char add[80];
    char gen[15];
    int age;
    int date;
    int month;
    int year;
```

```

    struct People *next;

}* head;
void added(long int reg,char* phn, char* name, char* add, char* gen, int age,int date,int
month,int year)
{

    struct People * people = (struct People *) malloc(sizeof(struct People));
    people->reg = reg;
    strcpy(people->phn, phn);
    strcpy(people->name, name);
    strcpy(people->add, add);
    strcpy(people->gen, gen);
    people->age = age;
    people->date = date;
    people->month = month;
    people->year = year;
    people->next = NULL;
    if(head==NULL)
    {
        head = people;
    }
    else
    {
        /*people->next = head;
        head = people;*/
        struct People*temp=head;
        while(temp->next!=NULL)
            temp=temp->next;
        temp->next=people;
    }
    printf("\n\n\t\t\tInformation of this Registration No. %ld Added Successfully In The
List !!!\n",reg);
}
int getCount(struct People * temp)
{
    int count = 0;
    struct People * current = head;
    while (current != NULL)
    {
        count++;
        current = current->next;
    }
    return count;
}
void display()
{
    int count;

```

```

struct People * temp = head;
if(temp== NULL)
{
    printf("\n\t\t\t Information Of Registration No. List is Empty!!!\n");
}
else
{
    printf("\n\n\t\t\t*****Peoples Information
List*****");

printf("\n\n\t\t\t*****\n");
while(temp!=NULL)
{
    printf("\n\t\t\tThe Registration No. :%ld\n",temp->reg);
    printf("\t\t\tThe Phone Number of people :%s\n",temp->phn);
    printf("\t\t\tThe Name of People :%s\n",temp->name);
    printf("\t\t\tThe Address of People:%s\n",temp->add);
    printf("\t\t\tThe Gender of People :%s\n",temp->gen);
    printf("\t\t\tThe Age of People :%d\n",temp->age);
    printf("\t\t\tThe people date of birth: %d/%d/%d\n",temp->date,
temp->month, temp->year);
    temp = temp->next;
}

printf("\n\n\t\t\t*****\n");
printf("\n\t\t\tTotal Registered Information of People in the list is : %d", getCount(head)); }
}

void search(long int reg)
{
    struct People * temp = head;
    if(head==NULL)
    {
        printf("\n\t\t\t Information Of Registration No. List is Empty!!!\n");
    }
    else
    {
        while(temp!=NULL)
        {
            if(temp->reg==reg)
            {
                printf("\n\t\t\tInformation of Registration No. %ld Is Found !!!\n", reg);

printf("\n\n\t\t\t*****\n");
                ; printf("\t\t\t Searching People Information List
");

printf("\n\n\t\t\t*****\n");
                printf("\n\t\t\tThe Registration No. :%ld\n",temp->reg);

```

```

        printf("\t\t\t\tThe Phone Number of people :%s\n",temp->phn);
        printf("\t\t\t\tThe Name of People :%s\n",temp->name);
        printf("\t\t\t\tThe Address of People:%s\n",temp->add);
        printf("\t\t\t\tThe Gender of People :%s\n",temp->gen);
        printf("\t\t\t\tThe Age of People :%d\n",temp->age);
        printf("\t\t\t\tThe people date of birth: %d/%d/%d\n",temp->date, temp->month,
temp->year);
        return;
    }
    temp = temp->next;
}
}
printf("\n\n\t\t\t\tNot Found the People with %ld Reg No. In The Information List !!!!!\n",reg);
}
void Delete(long int reg)
{
    struct People * temp1 = head;
    struct People * temp2 = head;
    while(temp1!=NULL)
    {

        if(temp1->reg==reg)
        {
            printf("\n\t\t\t\tInformation of Registration No. %ld Is Found !!!\n", reg);
            if(temp1==temp2)
            {
                head = head->next;
                free(temp1);
            }
            else
            {
                temp2->next = temp1->next;
                free(temp1);
            }
            printf("\n\t\t\t\tDeleting of the Registration No. Information Successfully
!!!!\n"); return;
        }
        temp2 = temp1;
        temp1 = temp1->next;
    }
    printf("\n\n\t\t\t\tNot Found the People with %ld Reg No. In The Information List !!!!!\n",reg);
}
void update(long int reg)
{
    struct People * temp = head;
    while(temp!=NULL)
    {

```

```

        if(temp->reg==reg)
        {
            printf("\n\t\t\t\t\tInformation of Registration No. %ld Is Found !!!\n\n", reg);
            printf("\t\t\t\t\t*****Update People Information*****");
            printf("\n\n\t\t\t\t\t*****\n");
            ; printf("\n\t\t\t\t\tUpdate People Registration Number :");
            scanf("%ld",&temp->reg);
            printf("\n\t\t\t\t\tUpdate People Phone Number :");
            fflush(stdin);
            gets(temp->phn);
            printf("\n\t\t\t\t\tUpdate People Name :");
            fflush(stdin);
            gets(temp->name);
            printf("\n\t\t\t\t\tUpdate People Address :");
            fflush(stdin);
            gets(temp->add);
            fflush(stdin);
            printf("\n\t\t\t\t\tUpdate People Gender :");
            fflush(stdin);
            gets(temp->gen);
            printf("\n\t\t\t\t\tUpdate People age :");
            fflush(stdin);
            scanf("%d",&temp->age);
            printf("\n\t\t\t\t\tUpdate People Birth Date : ");
            scanf("%d",&temp->date);
            printf("\n\t\t\t\t\tUpdate People Birth Month : ");
            scanf("%d",&temp->month);
            printf("\n\t\t\t\t\tUpdate people Birth Year : ");
            scanf("%d",&temp->year);
            printf("\n\n\t\t\t\t\tInformation of this Registration No. %ld Updated Successfully In The
List !!!\n",temp->reg);
            return;
        }
        temp = temp->next;

    }
    printf("\n\n\t\t\t\t\tNot Found the People with %ld Reg No. In The Information List !!!\n",reg);
}
int main()
{
    head = NULL;
    int choice,temp;
    long int reg;
    char phn[20];
    char name[50];
    char add[80];
    char gen[15];

```

```

int age;
int date;
int month;
int year;
system("cls");

while(1)
{
    //mainMenu:
    system("cls");

printf("\n\t\t\t*****\n");
printf("\t\t\t Welcome to Census Population Management Method ");

printf("\n\t\t\t*****\n");
                                printf("\t\t\t National Identity Registration ");

printf("\n\t\t\t*****\n");
    printf("\n\n\t\t\t1.Add People Information--->");
    printf("\n\n\t\t\t2.Display People In List--->");
    printf("\n\n\t\t\t3.Search A People Information--->");
    printf("\n\n\t\t\t4.Delete People Information--->");
    printf("\n\n\t\t\t5.Update A People Information--->");
    printf("\n\n\t\t\t6.Exit from the Application--->");
    printf("\n\n\t\t\t*Select A Option From Here: ");
    scanf("%d",&choice);
    switch (choice)
    {
        case 1:
            system("cls");
            printf("\n\n\t\t\t*****Enter New People
Information*****");
            printf("\n\n\t\t\t*****\n");
            ; printf("\n\t\t\tEnter People Registration Number :");
            scanf("%ld",&reg);
            printf("\n\t\t\tEnter People Phone Number :");
            fflush(stdin);
            gets(phn);
            printf("\n\t\t\tEnter People Name :");
            fflush(stdin);
            gets(name);
            printf("\n\t\t\tEnter People Address :");
            fflush(stdin);
            gets(add);
            printf("\n\t\t\tEnter People Gender :");
            fflush(stdin);
            gets(gen);
            printf("\n\t\t\tEnter People age :");

```

```

fflush(stdin);
scanf("%d",&age);
printf("\n\t\t\t\tEnter People Birth Date : ");
fflush(stdin);
scanf("%d",&date);
printf("\n\t\t\t\tEnter People Birth Month : ");
fflush(stdin);
scanf("%d",&month);
printf("\n\t\t\t\tEnter people Birth Year : ");
fflush(stdin);
scanf("%d",&year);
added(reg, phn, name, add, gen, age, date, month, year);
break;
case 2:
    system("cls");
    display();
    break;
case 3:
    system("cls");
    display();
    printf("\n\n\t\t\t\tTo Search Enter The People Registration No.
:"); scanf("%ld",&reg);
    system("cls");
    search(reg);
    break;
case 4:
    system("cls");
    display();
    printf("\n\n\t\t\t\tTo Delete Enter The People Registration No.
:"); scanf("%ld",&reg);
    system("cls");
    Delete(reg);
    break;
case 5:
    system("cls");
    display();
    printf("\n\n\t\t\t\tTo Update Enter The People Registration No.
:"); scanf("%ld",&reg);
    system("cls");

```



```

        update(reg);
        break;
    case 6:
        exit(1);
    default :
        system("cls");
        printf("\n\t\t\tInvalid Option!!!Choice Right Option!!!");
        //goto mainMenu;
    }
    printf("\n\n\t\t\tContinue to Again!!!");
    getch();
}
}

```

Output:

```

=====
Welcome to People Registration Management System
=====
1. Add People Information
2. Display People In List
3. Search People Information
4. Delete People Information
5. Update People Information
6. Exit from the application
Hit any key to start the program

```

```

=====Enter New People Information=====
=====
Enter People Registration Number : 12345678
Enter People Room Number : 12345678
Enter People Name : John
Enter People Address : 12345678
Enter People Gender : Male
Enter People Age : 20
Enter People Birth Date : 01-01-2000
Enter People Birth Month : 01
Enter People Birth Year : 2000

Information of New Registration No. :12345678 added successfully in the list !!!

Continue to again !!!

```

```

=====Display People Information=====
=====
The Registration No. : 12345678
The Room Number of people : 12345678
The Name of people : John
The Address of people : 12345678
The Gender of people : Male
The Age of people : 20
The Birth Date of people : 01/01/2000

=====
Enter Registration Information of people in the list to : 0
Continue to again !!!

```