

```
#include<iostream>

using namespace std;

#define PERSONS_LIMIT 50

int countPersons = 0;

class Persons{
public:
int Id;
char Name[20];
int Age;
char Dob[20];
char Position[30];
char Gender;
};

Persons obj[PERSONS_LIMIT];

void input(){

if(countPersons<PERSONS_LIMIT)
{
cout<<"\n Enter id (number): ";
cin>>obj[countPersons].Id;
cout<<"\n Enter Name (20 characters): ";
```

```

cin>>obj[countPersons].Name;
cout<<"\n Enter Age (number): ";
cin>>obj[countPersons].Age;
cout<<"\n Enter DOB (dd-mm-yy): ";
cin>>obj[countPersons].Dob;
cout<<"\n Enter Position : ";
cin>>obj[countPersons].Position;
cout<<"\n Enter Gender (M/F) : ";
cin>>obj[countPersons].Gender;
countPersons++;
}
else
{
cout<<"\n Error : Limit is only " << PERSONS_LIMIT;
}
}

```

```

void printAll(){
cout<<"\n **** * Printing All Records **** *";
cout<<"\n total number of persons : "<<countPersons<<endl;
for(int i=0;i<countPersons;i++){
cout<<"\n Id : "<< obj[i].Id;
cout<<"\t Name : "<<obj[i].Name;
cout<<"\t Age : "<<obj[i].Age;
cout<<"\t DOB : "<<obj[i].Dob;
cout<<"\t Position: "<<obj[i].Position;

```

```
cout<<"\t Gender : "<<obj[i].Gender;
}
}
```

```
void printbyAge(){
cout<<"\n **** * Printing All Records by Age*****";
int count50plus =0;
int count40plus=0;
int lessthen40=0;
```

```
for(int i=0;i<countPersons;i++){
if(obj[i].Age>50)
count50plus++;
else if(obj[i].Age>40)
count40plus++;
else
lessthen40++;
}
```

```
cout<<"\n Persons more than 50 : "<<count50plus;
cout<<"\n Persons more than 40 : "<<count40plus;
cout<<"\n Persons less than 40 : "<<lessthen40;
}
```

```
void printSexCount(){
```

```
cout<<"\n **** **** Printing All Records by Sex Count *****";
```

```
int malecount;
```

```
int femalcount;
```

```
for(int i=0;i<countPersons;i++){
```

```
if(obj[i].Gender=='M')
```

```
malecount++;
```

```
else if(obj[i].Gender=='F')
```

```
femalcount++;
```

```
}
```

```
cout<<"\n Number of Male : "<< malecount;
```

```
cout<<"\n Number of Female : "<< femalcount;
```

```
}
```

```
int main(){
```

```
int choice = -1;
```

```
while(choice!=0){
```

```
cout<<"\n\n =====Program Menu=====";
```

```
cout<<"\n 1 Input Records ";
```

```
cout<<"\n 2 Print All Records";
```

```
cout<<"\n 3 Print by Age";
```

```
cout<<"\n 4 Print by Sex count";
```

```
cout<<"\n 0 to exit";
```

```
cout<<"\n Enter you choice : ";
```

```
cin>>choice;
```

```
switch(choice){
```

```
    case 1: input(); break;
```

```
    case 2: printAll();break;
```

```
    case 3: printbyAge(); break;
```

```
    case 4: printSexCount(); break;
```

```
    case 0: cout<<"\n thank you for using software !!";break;
```

```
    default: cout<<"\n Error: Invalid Selection";
```

```
}
```

```
}
```

```
return 0;
```

```
}
```