Program for disjoint set

```c
#include<stdio.h>
#include<stdlib.h>
int main()
{
int ch,A[50],B[50],C[50],m,n,i;
do
{
 printf("\nSelect the choice: ");
 printf("\n1.Union\t2.find\t3.Exit");
 printf("\nChoice: ");
 scanf("%d",&ch);
 switch(ch)
 {
 case 1:printf("\nEnter cardinality of first set: ");
 scanf("%d",&m);
 printf("\nEnter cardinality of second set: ");
scanf("%d",&n);
if(m!=n)
{
printf("\nCannot perform union!");
break;
 }
 printf("\nEnter elements of first set: ");
 for(i=0;i<m;i++)
 {
 scanf("%d",&A[i]);
 }
printf("\nEnter elements of second set: ");
for(i=0;i<n;i++)
```

```c
{
 scanf("%d",&B[i]);
 }
printf("\nElements of set1 union set2: ");
for(i=0;i<m;i++)
{
 C[i]=A[i]|B[i];
 printf("%d ",C[i]);
 }
break;
 case 2:printf("\nEnter cardinality of first set: ");
 scanf("%d",&m);
 printf("\nEnter cardinality of second set: ");
scanf("%d",&n);
if(m!=n)
{
printf("\nCannot perform find!");
break;
 }
 printf("\nEnter elements of first set: ");
 for(i=0;i<m;i++)
{
 scanf("%d",&A[i]);
 }
printf("\nEnter elements of second set: ");
 for(i=0;i<n;i++)
{
 scanf("%d",&B[i]); }
printf("\nElements of set1 find set2: ");
for(i=0;i<m;i++)
{
```

```
C[i]=A[i]&B[i];

printf("%d ",C[i]);

}

break;

case 4:printf("\nProgram exit successfully!");

exit(0);

break;

default:printf("\nInvalid choice!");

};

}while(1);

}
```

code. compile. run. debug. share.

```
54    }
55    printf("\nEnter elements of second set: ");
56    for(i
```

input

```
6
1
2

Elements of set1 union set2: 5 6 3 6
Select the choice:
1.Union 2.find  3.Exit
Choice: 2

Enter cardinality of first set: 3

Enter cardinality of second set: 3

Enter elements of first set: 1
2
5

Enter elements of second set: 3
2
1

Elements of set1 find set2: 1 2 1
Select the choice:
1.Union 2.find  3.Exit
```