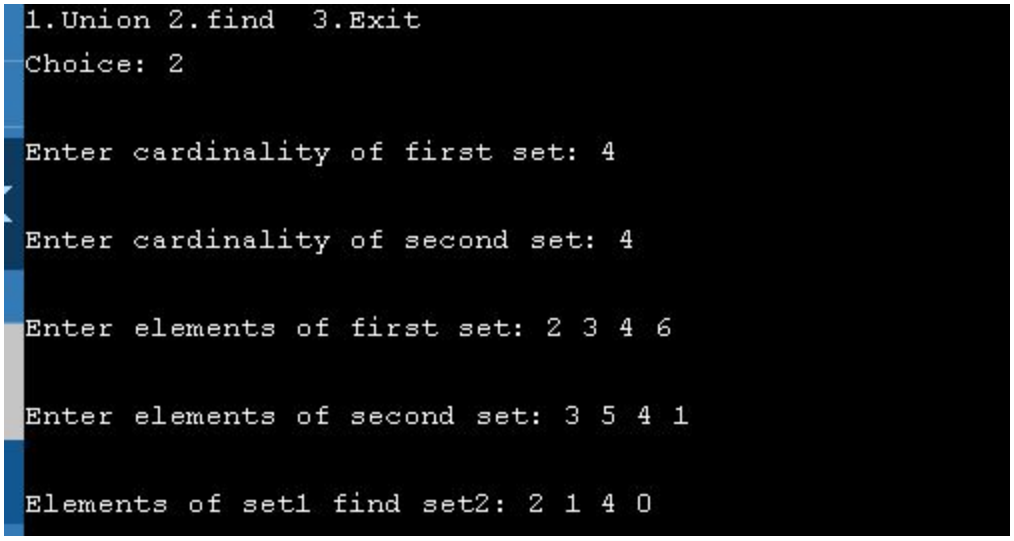
Disjoint Sets

```
#include<stdio.h>
#include<stdlib.h>
void 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++)
 {
  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);
}
```

OUTPUT


1.Union 2.find 3.Exit
Choice: 2
Enter cardinality of first set: 4
Enter cardinality of second set: 4
Enter elements of first set: 2 3 4 6
Enter elements of second set: 3 5 4 1
Elements of set1 find set2: 2 1 4 0