```
#include<stdio.h>
#include<stdlib.h>
void main()
{
int ch,A[50],B[50],C[50],m,n,i;
do
{
   printf("\nInput choice to perform: ");
   printf("\n1.Union\t2.Intersection\t3.Difference\t4.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:(0/1) ");
     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:(0/1) ");
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 intersection!");
break;
    }
   printf("\nEnter elements of first set:(0/1) ");
   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 intersection set2: (0/1)");
for(i=0;i<m;i++)
{
 C[i]=A[i]&B[i];
 printf("%d ",C[i]);
 }
                break;
 case 3:printf("\nEnter cardinality of first set: ");
       scanf("%d",&m);
                printf("\nEnter cardinality of second set: ");
scanf("%d",&n);
if(m!=n)
{
printf("\nCannot perform difference!");
break;
    }
   printf("\nEnter elements of first set:(0/1) ");
   for(i=0;i<m;i++)
{
          scanf("%d",&A[i]);
 }
printf("\nEnter elements of second set:(0/1) ");
   for(i=0;i<n;i++)
{
          scanf("%d",&B[i]);
 }
for(i=0;i<n;i++)
{
 if(A[i]==0)
```

```
   C[i]=0;
   else
   {
    if(B[i]==1)
C[i]=0;
else
C[i]=1;
    }
   }
  printf("\nElements of set1 - set2: ");
  for(i=0;i<m;i++)
  {
   printf("%d ",C[i]);
   }
        break;
   case 4:printf("\nProgram exit successfully!");
        exit(0);
                break;
   default:printf("\nInvalid choice!");
   };
  }while(1);
```

```
Input choice to perform:
1.Union 2.Intersection  3.Difference    4.Exit
Choice: 1

Enter cardinality of first set: 2

Enter cardinality of second set: 2

Enter elements of first set:(0/1) 1
0

Enter elements of second set: 0
1

Elements of set1 union set2:(0/1) 1 1
Input choice to perform:
1.Union 2.Intersection  3.Difference    4.Exit
Choice: 2

Enter cardinality of first set: 3

Enter cardinality of second set: 3

Enter elements of first set:(0/1) 1
0
0

Enter elements of second set: 3
```

```
Enter cardinality of second set: 3

Enter elements of first set:(0/1) 1
0
0

Enter elements of second set: 3
1
-

Elements of set1 intersection set2: (0/1)1 0 0
Input choice to perform:
1.Union 2.Intersection  3.Difference    4.Exit
Choice: 4

Program exit successfully!

...Program finished with exit code 0
Press ENTER to exit console.
```