```
#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:(0/1) ");
 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 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:(0/1) ");
 for(i=0;i<n;i++)
 {
 scanf("%d",&B[i]);
 }
 printf("\nElements of set1 intersection set2:");
 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: 3

Enter cardinality of second set: 3

Enter elements of first set:(0/1) 5
8
6

Enter elements of second set:(0/1) 7
4
9

Elements of set1 union set2: 7 12 15
Input choice to perform:
1.Union 2.Intersection  3.Difference    4.Exit
Choice:
```

```
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) 5
6
7

Enter elements of second set:(0/1) 8
5
6

Elements of set1 intersection set2:0 4 6
Input choice to perform:
1.Union 2.Intersection  3.Difference    4.Exit
Choice:
```

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

Enter cardinality of first set: 3

Enter cardinality of second set: 3

Enter elements of first set:(0/1) 4
5
5

Enter elements of second set:(0/1) 7
6
8

Elements of set1 - set2: 1 1 1
Input choice to perform:
1.Union 2.Intersection  3.Difference    4.Exit
Choice:
```