union.cxx
/storage/emulated...

sub.cxx union.cxx

```
1  #include<stdio.h>
2  #include<stdlib.h>
3  void main()
4  {
5     int ch,A[50],B[50],C[50],m,n,i;
6     do
7     {
8        printf("\nInput choice to perform:");
9        printf("\n1.Union\t2.Intersection\t3.
   Difference\t4.Exit");
10       printf("\nChoice:");
11       scanf("%d",&ch);
12       switch(ch)
13 {
14    case 1:printf("\nEnter cardinality of first
   set:");
15    scanf("%d",&m);
16    printf("\nEnter cardinality of second set:");
17    scanf("%d",&n);
18    if(m!=n)
19    {
20       printf("\nCannot perform union!");
21       break;
22    }
23    printf("\nEnter elelments of first s      ");
24    for(i=0;i<m;i++)
```

Tab | { | } | : | ; | "

```
23    printf("\nEnter elelments of first set:(0/1)");
24    for(i=0;i<m;i++)
25    {
26       scanf("%d",&A[i]);
27    }
28    printf("\nEnter elements of second set:(0/1)");
29    for(i=0;i<n;i++)
30    {
31       scanf("%d",&B[i]);
32    }
33    printf("\nElements of set1 union set2:");
34    for(i=0;i<m;i++)
35    {
36       C[i]=A[i]|B[i];
37       printf("%d",C[i]);
38    }
39    break;
40    case 2:printf("\nEnter cardinality of first set:
      ");
41    scanf("%d",&m);
42    printf("\nEnter cardinality of second set:");
43    scanf("%d",&n);
44    if(m!=n)
45    {
46       printf("\nCannot perform inters
47       break;
```

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```
46      printf("\nCannot perform intersection!");
47      break;
48    }
49    printf("\nEnter elements of first set:(0/1)");
50    for(i=0;i<m;i++)
51    {
52      scanf("%d",&A[i]);
53    }
54    printf("\nEnter elements of second set:(0/1)");
55    for(i=0;i<n;i++)
56    {
57      scanf("%d",&B[i]);
58    }
59    printf("\nElements of set1 intersection set2:");
60    for(i=0;i<m;i++)
61    {
62      C[i]=A[i]&B[i];
63      printf("%d",C[i]);
64    }
65    break;
66    case 3:printf("\nEnter cardinality of first
      set:");
67    scanf("%d",&m);
68    printf("\nEnter cardinality of second set:");
69    scanf("%d",&n);
70    if(m!=n)
```

```
71    {
72       printf("\nCannot perform difference!");
73       break;
74    }
75    printf("\nEnter elements of first set:(0/1)");
76    for(i=0;i<m;i++)
77    {
78       scanf("%d",&A[i]);
79    }
80    printf("\nEnter elements of second set:(0/1)");
81    for(i=0;i<n;i++)
82    {
83       scanf("%d",&B[i]);
84    }
85    for(i=0;i<n;i++)
86    {
87       if(A[i]==0)
88       C[i]=0;
89       else
90       {
91          if(B[i]==1)
92          C[i]=0;
93          else
94          C[i]=1;
95       }
96    }
```

```
93          else
94          C[i]=1;
95        }
96    }
97    printf("\nElement of set1 - set2:");
98    for(i=0;i<m;i++)
99    {
100     printf("%d",C[i]);
101   }
102   break;
103   case 4:printf("\nProgram exit successfully!");
104           exit(0);
105         break;
106   default:printf("\nInvalid choice!");
107 };
108   }while(1);
109
110 }
```


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

Enter cardinality of first set:4

Enter cardinality of second set:4

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

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

Elements of set1 union set2:1111
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 1 0

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

Elements of set1 intersection set2:100
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)1 0 1

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

Element of set1 - set2:000
Input choice to perform:
1.Union 2.Intersection  3.Difference    4.Exit
Choice:
```