/*array union & intersection*/

```
#include <stdio.h>
void printUnion(int array1[], int size1, int array2[], int size2)
{
  int index1 = 0, index2 = 0;
  while(index1 < size1 && index2 < size2)
  {
    if (array1[index1] < array2[index2])

      printf("%d ", array1[index1++]);
    else if (array2[index2] < array1[index1])

      printf("%d ", array2[index2++]);
    else
          {

      printf("%d ", array2[index2]);
      index1++;
      index2++;
    }
 }

   while(index1 < size1)
   printf("%d ", array1[index1++]);

 while(index2 < size2)
   printf("%d ", array2[index2++]);
}

void printintersection(int array1[],int n,int array2[],int m)
```

```
{
        int i,j,k=0,count=0;
        int b[k];
        for(i=0;i<n;i++)
        {
                for(j=0;j<m;j++)
                {
                        if(array1[i]==array2[j])
                        {
                                b[k]=array1[i];
                                k++;
                                count++;
                        }
                }
        }
        printf("after intersection the result is\n");
        for(k=0;k<count;k++)
        {
                printf("%d\t",b[k]);
        }
}
int main()
{
        int n,m;
        printf("Enter number of 1st array elements\n");
        scanf("%d",&n);
        printf("Enter number of 2nd array elements\n");
        scanf("%d",&m);
   int array1[n] ;
   int array2[m] ;
        printf("Enter 1st array elemets\n");
```

```
        for(int i=0;i<n;i++)
        {
                scanf("%d",&array1[i]);
         }
         printf("Enter 2nd array elemets\n");
        for(int j=0;j<m;j++)
        {
                scanf("%d",&array2[j]);
         }
         printf("New array elements are\n");

    printUnion(array1, n, array2, m);
    printintersection(array1, n, array2, m);
    return 0;
}
```