

/*array union and intersection*/

```
#include<stdio.h>
```

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

```
{
    printf("the result of array union\n");
    int i=0,j=0;
    while(i<n && j<m)
    {
        if(array1[i]<array2[j])
        {
            printf("%d\n",array1[i++]);
        }
        else if(array2[j]<array1[i])
        {
            printf("%d\n",array2[j++]);
        }
        else
        {
            printf("%d\n",array1[i]);
            i++;
            j++;
        }
    }
    while(i<n)
    printf("%d\n",array1[i++]);
    while(j<m)
    printf("%d\n",array2[j++]);
}
```

```
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("the result of array intersection\n");
for(i=0;i<count;i++)
{
    printf("%d\n",b[i]);
}
}

int main()
{
    int n,m,i,j;
    printf("enter the value of n for 1st array\n");
    scanf("%d",&n);
    printf("enter the value of m for the 2nd array\n");
    scanf("%d",&m);
    int array1[n],array2[m];
    printf("enter the values for 1st array\n");
    for(i=0;i<n;i++)
    {
        scanf("%d",&array1[i]);
    }
}

```

```

    }

    printf("enter the values for 2nd array\n");

    for(j=0;j<m;j++)
    {
        scanf("%d",&array2[j]);
    }

    printunion(array1,n,array2,m);

    printintersection(array1,n,array2,m);
}

```

```

C:\Users\HP\OneDrive\Desktop >
enter the values for 1st array
1
2
3
4
5
enter the values for 2nd array
3
4
5
6
7
8
the result of array union
1
2
3
4
5
6
7
8
the result of array intersection
3
4
5
-----
Process exited after 13.85 seconds with return value 0
Press any key to continue . . .

```