

`/*array union & intersection*/`

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

```
void printunion(int a[],int n,int b[],int m);
```

```
void printintersection(int a[],int n,int b[],int m);
```

```
int main()
```

```
{
```

```
    int i,j,n,m;
```

```
    printf("enter the size of 1st array\n");
```

```
    scanf("%d",&n);
```

```
    printf("enter the size of 2nd array\n");
```

```
    scanf("%d",&m);
```

```
    int a[n],b[m];
```

```
    printf("enter the 1st array elements\n");
```

```
    for(i=0;i<n;i++)
```

```
    {
```

```
        scanf("%d",&a[i]);
```

```
    }
```

```
    printf("enter the 2nd array elements\n");
```

```
    for(j=0;j<m;j++)
```

```
    {
```

```
        scanf("%d",&b[j]);
```

```
    }
```

```
    printunion(a,n,b,m);
```

```
    printintersection(a,n,b,m);
```

```
}
```

```
void printunion(int a[],int n,int b[],int m)
```

```
{
```

```
    printf("new array elements are\n");
```

```
    int i=0,j=0;
```

```
    while(i<n && j<m)
```

```
    {
```

```

        if(a[i]<b[j])
        {
            printf("%d\n",a[i]);
            i++;
        }
        else if(a[i]>b[j])
        {
            printf("%d\n",b[j]);
            j++;
        }
        else
        {
            printf("%d\n",a[i]);
            i++;
            j++;
        }
    }
    while(i<n)
    {
        printf("%d\n",a[i]);
        i++;
    }
    while(j<m)
    {
        printf("%d\n",b[j]);
        j++;
    }
}

void printintersection(int a[],int n,int b[],int m)
{
    int i,j,k=0,count=0;

```

```

int c[k];

for(i=0;i<n;i++)
{
    for(j=0;j<m;j++)
    {
        if(a[i]==b[j])
        {
            c[k]=a[i];
            k++;
            count++;
        }
    }
}

printf("the result of intersection is\n");

for(k=0;k<count;k++)
{
    printf("%d\n",c[k]);
}
}

```

```

C:\Users\HP\OneDrive\Desktop
enter the size of 1st array
5
enter the size of 2nd array
6
enter the 1st array elements
1
2
3
4
5
enter the 2nd array elements
3
4
5
6
7
8
new array elements are
1
2
3
4
5
6
7
8
the result of intersection is
3
4
5
-----
Process exited after 12.21 seconds with return value 0
Press any key to continue . . .

```