Binary Search in Array

```
#include<stdio.h>
struct Array
{
    int A[10];
    int size;
    int length;
};
    void Display(struct Array arr)
    {
        int i;
        printf("\nElements are\n");
        for(i=0;i<arr.length;i++)
            printf("%d ",arr.A[i]);
    }
 void swap(int *x,int *y)
 {
     int temp=*x;
     *x=*y;
     *y=temp;
 }

int BinarySearch(struct Array arr,int key)
{
    int l,mid,h;
    l=0;
    h=arr.length-1;
    while(l<=h)
    {
        mid=(l+h)/2;
        if(key==arr.A[mid])
            return mid;
        else if(key<arr.A[mid])
            h=mid-1;
        else
            l=mid+1;
    }
return -1;
}

int RBinSearch(int a[],int l,int h,int key)
{

    int mid=0;
    if(l<=h)
    {
```

```
        mid=(l+h)/2;
        if(key==a[mid])
            return mid;
        else if(key<a[mid])
            return RBinSearch(a,l,mid-1,key);
    }
    else
        return RBinSearch(a,mid+1,h,key);
return -1;
}

int main()
{

    struct Array arr1={{2,3,9,16,18,21,28,32,35},10,9};
    printf("%d",BinarySearch(arr1,16));
    Display(arr1);
    return 0;
}
```