

## Assignment:16

**Q.1 Accept n numbers and a single number and check the number is present or not.**

**Ans.**

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

bool CheckNum(int Arr[],int iSize,int iNo)
{
    int iCnt=0,iFreq=0;

    for(iCnt=0;iCnt<iSize;iCnt++)
    {
        if(Arr[iCnt]==iNo)
        {
            iFreq+=1;
            break;
        }
    }

    if(iFreq==1)
    {
        return true;
    }
    else
    {
        return false;
    }
}

int main()
{
    int *ptr=0;
    int iLength=0,iCnt=0,iNo=0;

    printf("Enter number of elements you want to enter:\n");
    scanf("%d",&iLength);
```

```

ptr=(int*)malloc(sizeof(int)*iLength);

printf("Enter elements of array:\n");
for(iCnt=0;iCnt<iLength;iCnt++)
{
    scanf("%d",&ptr[iCnt]);
}

printf("Enter number you want to check frequency of: ");
scanf("%d",&iNo);

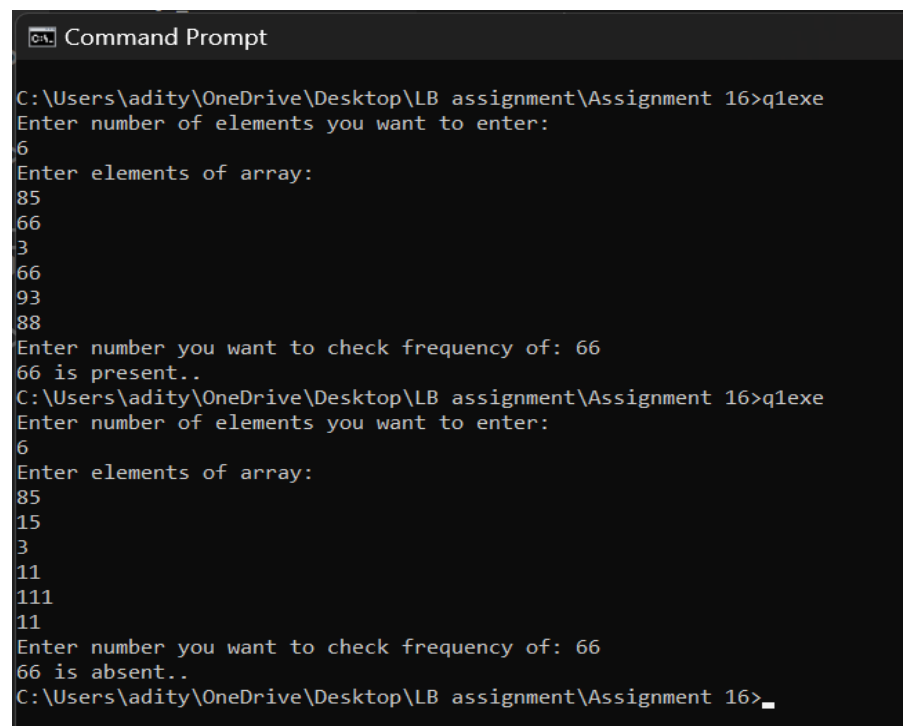
bool bRet=CheckNum(ptr,iLength,iNo);

if(bRet==true)
{
    printf("%d is present..",iNo);
}
else
{
    printf("%d is absent..",iNo);
}

free(ptr);
return 0;
}

```

## OUTPUT:



```

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>q1exe
Enter number of elements you want to enter:
6
Enter elements of array:
85
66
3
66
93
88
Enter number you want to check frequency of: 66
66 is present..
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>q1exe
Enter number of elements you want to enter:
6
Enter elements of array:
85
15
3
11
111
11
Enter number you want to check frequency of: 66
66 is absent..
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>

```

**Q.2 Accept n numbers and a single number and return first occurring index of that number.**

**Ans.**

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

int CheckIndex(int Arr[],int iSize,int iNo)
{
    int iCnt=0,iIndex=-1;

    for(iCnt=0;iCnt<iSize;iCnt++)
    {
        if(Arr[iCnt]==iNo)
        {
            iIndex=iCnt;
            break;
        }
    }
    return iIndex;
}

int main()
{
    int *ptr=0;
    int iLength=0,iCnt=0,iNo=0;

    printf("Enter number of elements you want to enter:\n");
    scanf("%d",&iLength);

    ptr=(int*)malloc(sizeof(int)*iLength);

    printf("Enter elements of array:\n");
    for(iCnt=0;iCnt<iLength;iCnt++)
    {
        scanf("%d",&ptr[iCnt]);
    }

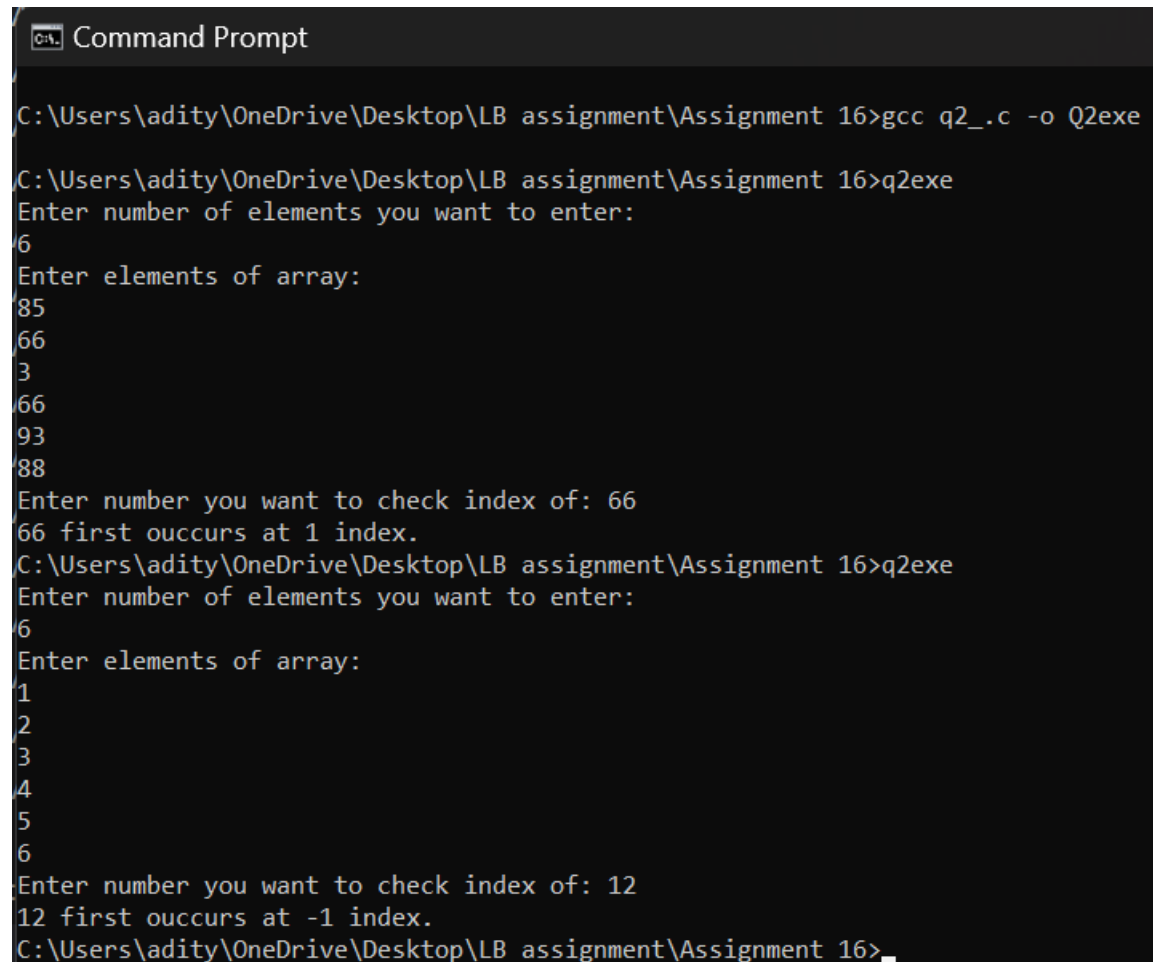
    printf("Enter number you want to check index of: ");
    scanf("%d",&iNo);

    int iRet=CheckIndex(ptr,iLength,iNo);

    printf("%d first ouccurs at %d index.", iNo,iRet);
}
```

```
    free(ptr);  
    return 0;  
}
```

## OUTPUT:



```
Command Prompt  
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>gcc q2_.c -o Q2exe  
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>q2exe  
Enter number of elements you want to enter:  
6  
Enter elements of array:  
85  
66  
3  
66  
93  
88  
Enter number you want to check index of: 66  
66 first ouccurs at 1 index.  
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>q2exe  
Enter number of elements you want to enter:  
6  
Enter elements of array:  
1  
2  
3  
4  
5  
6  
Enter number you want to check index of: 12  
12 first ouccurs at -1 index.  
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>_
```

**Q.3 Accept n numbers and a single number and return last occuring index of that number.**

**Ans.**

```
#include<stdio.h>  
#include<stdlib.h>  
  
int CheckIndex(int Arr[],int iSize,int iNo)  
{
```

```

    int iCnt=0,iIndex=-1;

    for(iCnt=iSize;iCnt>0;iCnt--)
    {
        if(Arr[iCnt]==iNo)
        {
            iIndex=iCnt;
            break;
        }
    }
    return iIndex;
}

int main()
{
    int *ptr=0;
    int iLength=0,iCnt=0,iNo=0;

    printf("Enter number of elements you want to enter:\n");
    scanf("%d",&iLength);

    ptr=(int*)malloc(sizeof(int)*iLength);

    printf("Enter elements of array:\n");
    for(iCnt=0;iCnt<iLength;iCnt++)
    {
        scanf("%d",&ptr[iCnt]);
    }

    printf("Enter number you want to check index of: ");
    scanf("%d",&iNo);

    int iRet=CheckIndex(ptr,iLength,iNo);

    printf("%d last ouccurs at %d index.", iNo,iRet);

    free(ptr);
    return 0;
}

```

## OUTPUT:

```
Command Prompt

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>q3exe
Enter number of elements you want to enter:
6
Enter elements of array:
85
66
3
66
93
88
Enter number you want to check index of: 66
66 last ouccurs at 3 index.
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>gcc q3_.c -o Q3exe

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>q3exe
Enter number of elements you want to enter:
6
Enter elements of array:
1
2
3
4
5
6
Enter number you want to check index of: 7
7 last ouccurs at -1 index.
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>_
```

**Q.4 Accept n numbers and range from user display, numbers of array in between that range.**

**Ans.**

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

void CheckInRange(int Arr[],int iSize,int iStart,int iEnd)
{
    int iCnt=0,iR=0;

    printf("Numbers in between range are:\n");
    for(iCnt=0;iCnt<iSize;iCnt++)
    {
        for(iR=iStart;iR<=iEnd;iR++)
```

```

        if(Arr[iCnt]==iR)
        {
            printf("%d\t",Arr[iCnt]);
        }
    }
}

int main()
{
    int *ptr=0;
    int iLength=0,iCnt=0,iStart=0,iEnd=0;

    printf("Enter number of elements you want to enter:\n");
    scanf("%d",&iLength);

    ptr=(int*)malloc(sizeof(int)*iLength);

    printf("Enter elements of array:\n");
    for(iCnt=0;iCnt<iLength;iCnt++)
    {
        scanf("%d",&ptr[iCnt]);
    }

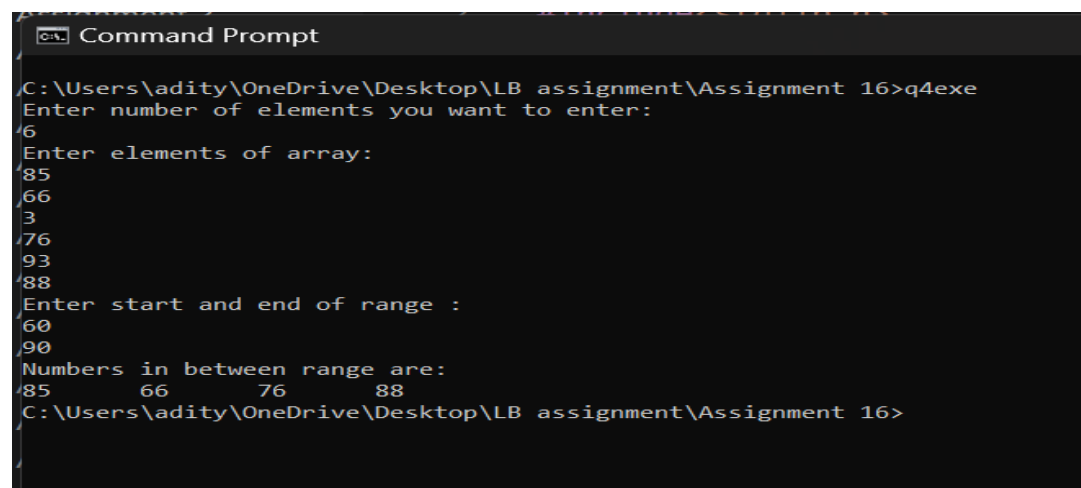
    printf("Enter start and end of range : \n");
    scanf("%d %d",&iStart,&iEnd);

    CheckInRange(ptr,iLength,iStart,iEnd);

    free(ptr);
    return 0;
}

```

## OUTPUT:



```

C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>q4exe
Enter number of elements you want to enter:
6
Enter elements of array:
85
66
3
76
93
88
Enter start and end of range :
60
90
Numbers in between range are:
85    66    76    88
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>

```

**Q.5 Accept n number from user and return product of all odd numbers.**

**Ans.**

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

int nOddMul(int Arr[],int iSize)
{
    int iCnt=0,iMul=1;

    for(iCnt=0;iCnt<iSize;iCnt++)
    {
        if(Arr[iCnt]%2!=0)
        {
            iMul*=Arr[iCnt];
        }
    }

    if(iMul==1)
    {
        iMul=-1;
    }

    return iMul;
}

int main()
{
    int *ptr=0;
    int iLength=0,iCnt=0;

    printf("Enter number of elements you want to enter:\n");
    scanf("%d",&iLength);

    ptr=(int *)malloc(sizeof(int)*iLength);

    printf("Enter Elements of array:\n");
    for(iCnt=0;iCnt<iLength;iCnt++)
    {
        scanf("%d",&ptr[iCnt]);
    }
}
```

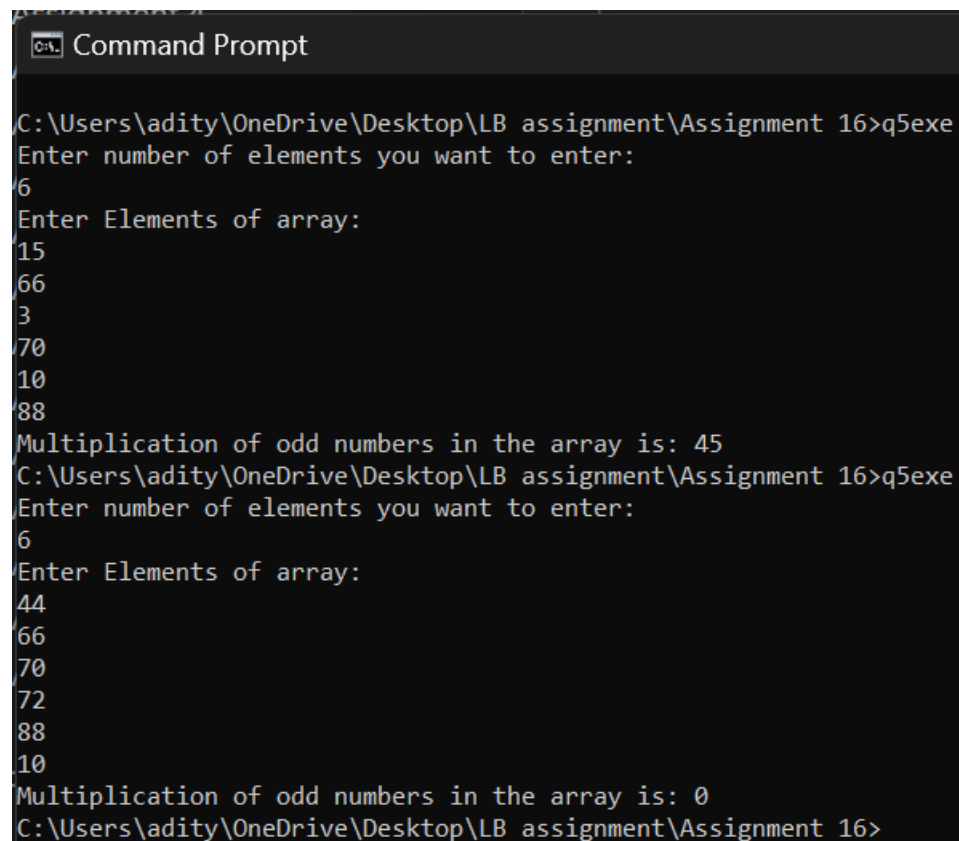


```
int iRet=nOddMul(ptr,iLength);

printf("Multiplication of odd numbers in the array is: %d",iRet);

return 0;
}
```

## OUTPUT:



```
Command Prompt
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>q5.exe
Enter number of elements you want to enter:
6
Enter Elements of array:
15
66
3
70
10
88
Multiplication of odd numbers in the array is: 45
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>q5.exe
Enter number of elements you want to enter:
6
Enter Elements of array:
44
66
70
72
88
10
Multiplication of odd numbers in the array is: 0
C:\Users\adity\OneDrive\Desktop\LB assignment\Assignment 16>
```