Logic Building Assignment : 18

Create separate visual Studio project for each problem statement separately.

1. Accept N numbers from user and return frequency of even numbers.

Input : N : 6

Elements : 85 66 3 80 93 88

Output : 3

Program Layout :

```
#include<stdio.h>

int CountEven(int Arr[], int iLength)
{
	// Logic
}

int main()
{
	int iSize = 0,iRet = 0,iCnt = 0;
	int *p = NULL;

	printf("Enter number of elements");
	scanf("%d",&iSize);

	p = (int *)malloc(iSize * sizeof(int));

	if(p == NULL)
	{
		printf("Unable to allocate memory");
		return -1;
	}

	printf("Enter %d elements ",iLength);

	for(iCnt = 0;i<iLength; iCnt++)
	{
		printf("Enter element : %d",iCnt+1);
		scanf("%d",&p[iCnt]);
	}

	iRet = CountEven(p, iSize);
```

```
        printf("Result is %d",iRet);

        free(p);

        return 0;
}
```

2. Accept N numbers from user and return difference between frequency of even number and odd numbers.

Input : N : 7

Elements : 85 66 3 80 93 88 90

Output : 1 (4 -3)

Program Layout :

```
#include<stdio.h>

Int Frequency(int Arr[], int iLength)
{
        // Logic
}

int main()
{
        int iSize = 0,iRet = 0,iCnt = 0, iRet = 0;
        int *p = NULL;

        printf("Enter number of elements");
        scanf("%d",&iSize);

        p = (int *)malloc(iSize * sizeof(int));

        if(p == NULL)
        {
                printf("Unable to allocate memory");
                return -1;
        }

        printf("Enter %d elements ",iLength);

        for(iCnt = 0;iCnt<iLength; iCnt++)
        {
                printf("Enter element : %d",iCnt+1);
```

```
        scanf("%d",&p[iCnt]);
    }

    iRet = Frequency(p, iSize);

    printf("%d",iRet);

    free(p);

    return 0;
}
```

3. Accept N numbers from user check whether that numbers contains 11 in it or not.

Input : N : 6

Elements : 85 66 11 80 93 88

Output : 11 is present

Input : N : 6

Elements : 85 66 3 80 93 88

Output : 11 is absent

Program Layout :

```
#include<stdio.h>

#define TRUE 1
#define FALSE 0

typedef int BOOL;

BOOL Check(int Arr[], int iLength)
{
    // Logic
}

int main()
{
    int iSize = 0,iRet = 0,iCnt = 0;
    int *p = NULL;
    BOOL bRet = FALSE;
```

```
        printf("Enter number of elements");
        scanf("%d",&iSize);

        p = (int *)malloc(iSize * sizeof(int));

        if(p == NULL)
        {
                printf("Unable to allocate memory");
                return -1;
        }

        printf("Enter %d elements ",iLength);

        for(iCnt = 0;iCnt<iLength; iCnt++)
        {
                printf("Enter element : %d",iCnt+1);
                scanf("%d",&p[iCnt]);
        }

        bRet = Check(p, iSize);

        if(bRet == TRUE)
        {
                printf("11 is present");
        }
        else
        {
                printf("11 is absent");
        }
        free(p);

        return 0;
}
```

4. Accept N numbers from user and return frequency of 11 form it.

Input : N : 6

Elements : 85 66 3 15 93 88

Output : 0

Input : N : 6

Elements : 85 11 3 15 11 111

Output : 2

Program Layout :

```
#include<stdio.h>

int Frequency(int Arr[], int iLength)
{
	// Logic
}

int main()
{
	int iSize = 0,iRet = 0,iCnt = 0, iRet = 0;
	int *p = NULL;

	printf("Enter number of elements");
	scanf("%d",&iSize);

	p = (int *)malloc(iSize * sizeof(int));

	if(p == NULL)
	{
		printf("Unable to allocate memory");
		return -1;
	}

	printf("Enter %d elements ",iLength);

	for(iCnt = 0;iCnt<iLength; iCnt++)
	{
		printf("Enter element : %d",iCnt+1);
		scanf("%d",&p[iCnt]);
	}

	iRet = Frequency(p, iSize);

	printf("%d",iRet);

	free(p);

	return 0;
}
```

5. Accept N numbers from user and accept one another number as NO , return frequency of NO form it.

Input : N : 6

NO: 66

Elements : 85 66 3 66 93 88

Output : 2

Input : N : 6

NO: 12

Elements : 85 11 3 15 11 111

Output : 0

Program Layout :

```
#include<stdio.h>

int Frequency(int Arr[], int iLength, int iNo)
{
	// Logic
}

int main()
{
	int iSize = 0,iRet = 0,iCnt = 0, iRet = 0, iValue = 0;
	int *p = NULL;

	printf("Enter number of elements");
	scanf("%d",&iSize);

	printf("Enter the number");
	scanf("%d",&iValue);

	p = (int *)malloc(iSize * sizeof(int));

	if(p == NULL)
	{
		printf("Unable to allocate memory");
		return -1;
	}

	printf("Enter %d elements ",iLength);

	for(iCnt = 0;iCnt<iLength; iCnt++)
```

```
        {
                printf("Enter element : %d",iCnt+1);
                scanf("%d",&p[iCnt]);
        }

        iRet = Frequency(p, iSize,iValue);

        printf("%d",iRet);

        free(p);

        return 0;
}
```