

Assignment-12

1. Accept N number from user and return the largest number.

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

int Maximum(int Arr[],int iLength )
{
    int iCnt = 0;
    int iLargest = Arr[iCnt];

    for(iCnt = 1; iCnt < iLength; iCnt++)
    {
        if(iLargest < Arr[iCnt])
        {
            iLargest = Arr[iCnt];
        }
    }

    return iLargest;
}

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

    int iRet = 0;

    printf("Enter number of Elements :\n");
    scanf("%d",&iSize);

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

    printf("Enter the Elements :\n");
```

```
for(iCnt = 0; iCnt < iSize; iCnt++)
{
    scanf("%d",&p[iCnt]);
}

iRet = Maximum(p , iSize );

printf("Lagest Number is %d \n",iRet);


free(p);


return 0;
}
```

OUTPUT :

gcc A12Program1.c -o Myexe

1./Myexe

Enter number of Elements :

6

Enter the Elements :

85 66 3 66 93 88

Lagest Number is 93

1.Accept N number from user and return the smallest number..

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

int Minimum(int Arr[],int iLength )
{
    int iCnt = 0;
    int iSmallest = Arr[iCnt];

    for(iCnt = 1; iCnt < iLength; iCnt++)
    {
        if(iSmallest > Arr[iCnt])
        {
            iSmallest = Arr[iCnt];
        }
    }

    return iSmallest;
}

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

    int iRet = 0;

    printf("Enter number of Elements :\n");
    scanf("%d",&iSize);

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

    printf("Enter the Elements :\n");
```

```
for(iCnt = 0; iCnt < iSize; iCnt++)
{
    scanf("%d",&p[iCnt]);
}

iRet = Minimum(p , iSize );

printf("Smallest Number is %d \n",iRet);


free(p);


return 0;
}
```

OUTPUT :

gcc A12Program2.c -o Myexe

1 ./Myexe

Enter number of Elements :

6

Enter the Elements :

85 66 3 66 93 88

Smallest Number is 3

3.Accept N numbers from user and return the difference between largest and smallest number.

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

int Difference(int Arr[],int iLength )
{
    int iCnt = 0;

    int iLargest = Arr[iCnt];

    int iSmallest = Arr[iCnt];

    int iDifference = 0;

    for(iCnt = 1; iCnt < iLength; iCnt++)
    {
        if(iLargest < Arr[iCnt])
        {
            iLargest = Arr[iCnt];
        }
        else if(iSmallest > Arr[iCnt])
        {
            iSmallest = Arr[iCnt];
        }

        iDifference = iLargest - iSmallest;
    }

    return iDifference;
}

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

    int iRet = 0;

    printf("Enter number of Elements :\n");
    scanf("%d",&iSize);
```

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

printf("Enter the Elements :\n");

for(iCnt = 0; iCnt < iSize; iCnt++)
{
    scanf("%d",&p[iCnt]);
}

iRet = Difference(p , iSize );

printf(" Difference is %d \n",iRet);


free(p);


return 0;
}
```

OUTPUT :

```
gcc A12Program3.c -o Myexe
```

1 ./Myexe

```
Enter number of Elements :
```

```
6
```

```
Enter the Elements :
```

```
85 66 3 66 93 88
```

```
Difference is 90
```

4.Accept N number from user and display all such numbers which contains 3 digits in it.

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

void Digits(int Arr[],int iLength)
{
    int iCnt = 0;

    for(iCnt = 0; iCnt < iLength; iCnt++)
    {
        if(Arr[iCnt] > 99 && Arr[iCnt] <1000)
        {
            printf("%d \t",Arr[iCnt]);
        }
    }
    printf("\n");
}

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

    printf("Enter number of Elements : \n");
    scanf("%d",&iSize);

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

    printf("Enter the Elements :\n");

    for(iCnt = 0; iCnt < iSize; iCnt++)
    {
        scanf("%d",&p[iCnt]);
    }

    Digits(p , iSize);
}
```

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

OUTPUT :

```
gcc A12Program4.c -o Myexe
```

1 ./Myexe

Enter number of Elements :

6

Enter the Elements :

8225 665 3 76 953 858

665 953 858

5. Accept N numbers from user and display summation of digits of each number.

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

void DigitsSum(int Arr[],int iLength)
{
    int iCnt = 0;
    int sum = 0;
    for(iCnt = 0; iCnt < iLength; iCnt++)
    {
        sum = DigitSum(Arr[iCnt]);
        printf("%d\t",sum);
    }
    printf("\n");
}

int DigitSum(int iNo)
{
    int iSum = 0;
    int iDigit = 0;
    while(iNo!= 0)
    {
        iDigit = iNo % 10;
        iSum = iSum + iDigit;
        iNo = iNo/ 10;
    }
    return iSum;
}

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

    printf("Enter number of Elements : \n");
    scanf("%d",&iSize);
```

```

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

printf("Enter the Elements :\n");

for(iCnt = 0; iCnt < iSize; iCnt++)
{
    scanf("%d",&p[iCnt]);
}

DigitsSum(p , iSize);

free(p);

return 0;
}

```

OUTPUT :

```
gcc A12Program5.c -o Myexe
```

1./Myexe

Enter number of Elements :

6

Enter the Elements :

8225 665 3 76 953 858

17 17 3 13 17 21