**PRACTICAL-4**

**IMPLEMENTATION OF COMPACTION FOR THE CONTINUALLY CHANGING MEMORY LAYOUT AND CALCULATE TOTAL MOVEMENT OF DATA.**

#include<stdio.h>

#include<conio.h>

void main()

{

int a[15],i,n,j,p=0,q=0,count=0,flag=0;

clrscr();

printf("Enter the size of array:");

scanf("%d",&n);

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

{

printf("\n\nEnter the value for %d element:",i+1);

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

}

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

{

if(a[i]==0&&flag==0)

{

p=i;

flag=1;

}

else

{

if(a[i]==1&&flag==1)

{

q=i;

a[q]=0;

a[p]=1;

i=p-1;

flag=0;

count++;

}

}

}

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

printf("%d",a[i]);

printf("\n\nTotal movement of data is: %d",count);

getch();

}