```c
#include<stdio.h>
#include<stdlib.h>
void insertion(int arr[],int n);
void deletion(int arr[],int n);
void searching(int arr[],int n);
void sorting(int arr[],int n);
void reverse(int arr[],int n);
int main()
{
 int *data,num;
printf("enter the size\n");
scanf("%d",&num);
data=(int*)malloc(num*sizeof(int));
 int i;
printf("enter the value");
 for (i=0;i<num;i++)
 {
 scanf("%d",(data+i));
 }
printf("enter your choice\n");
printf("1.insertion\n");
printf("2.deletion\n");
printf("3.searching\n");
printf("4.sorting\n");
printf("5.reverse of array\n");
 int ch;
scanf("%d",&ch);
switch (ch)
 {
 case 1:
  insertion(data,num);
  break;
 case 2:
  deletion(data,num);
   break;
 case 3:
  searching(data,num);
  break;
 case 4:
  sorting(data,num);
  break;
 case 5:
  reverse(data,num);
  break;
 default:
  printf("invalid input");
 }
 return 0;
}
void insertion(int arr[],int n)
{
printf("enter the position you want to insert");
 int pos,value1,i;
printf("enter the value  you want to enter in that position");
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scanf("%d%d",&pos,&value1);
for (i=n+1;i>pos-1;i--)
{
 arr[i]=arr[i-1];
}
arr[pos-1]=value1;
for (i=0;i<n+1;i++)
{
 printf("%d\n",arr[i]);
}
}
void deletion(int arr[],int n)
{
 int i;
 printf("enter the position you want to delete");
 int pos;
 scanf("%d",&pos);
 for (i=pos-1;i<n;i++)
{
 arr[i]=arr[i+1];
}
 for (i=0;i<n-1;i++)
{
 printf("%d",arr[i]);
 printf("\n");
}
}
void searching(int arr[],int n)
{
 int value,check=0,val;
 int i;
 printf("enter the value to search");
 scanf("%d",&value);
 check=0;
    for (i=0;i<n;i++)
{
 if (value==arr[i])
 {
  check=1;
  val=i;
 }
}
 if (check==1)
{
 printf("The value found at location %d",val);
}
 else
 {
 printf("Not found");
 }
}
void sorting(int arr[],int n)
{
 int i,j,temp;
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    for (i=0;i<4;i++)
    {
     for (j=0;j<5-i-1;j++)
      {
       if (arr[j]>arr[j+1])
        {
         temp=arr[j];
         arr[j]=arr[j+1];
         arr[j+1]=temp;
        }
      }
    }
    for (i=0;i<5;i++)
    {
     printf("%d\n",arr[i]);
    }

}
void reverse(int arr[],int n)
{
 int temp,i,j=n;
  {
   while (i<j)
    {
     temp=arr[i];
     arr[i]=arr[j];
     arr[j]=temp;
     i++;
     j--;
    }
   for (i=0;i<5;i++)
   {
    printf("%d\n",arr[i]);
   }
  }
}
```