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Programs to Arrange the elements of array(list) in ascending order.
                                                                            Bubble sort
                   Selection Sort
                                                                                                                                   Insertion Sort
#include <stdio.h>
                                                       #include <stdio.h>
                                                                                                               #include <stdio.h>
int main()
                                                       int main()
                                                                                                               int main()
  int a[100],n,i,j,t,min;
                                                                                                                 int a[100],n,i,j,t;
                                                          int a[100],n,i,j,t;
                                                          printf("Enter Array size\n");
  printf("Enter Array size\n");
                                                                                                                 printf("Enter Array size\n");
  scanf("%d",&n);
                                                          scanf("%d",&n);
                                                                                                                 scanf("%d",&n);
  printf("Enter %d elements of Array\n",n);
                                                          printf("Enter %d elements of Array\n",n);
                                                                                                                 printf("Enter %d elements of Array\n",n);
                                                                                                                 for(i=0;i<n;i++)
  for(i=0;i<n;i++)
                                                          for(i=0;i<n;i++)
    scanf("%d",&a[i]);
                                                                                                                    scanf("%d",&a[i]);
                                                            scanf("%d",&a[i]);
  printf("Entered Array elements are\n");
                                                          printf("Entered Array elements are\n");
                                                                                                                 printf("Entered Array elements are\n");
  for(i=0;i< n;i++)
                                                          for(i=0;i<n;i++)
                                                                                                                 for(i=0;i< n;i++)
    printf("%6d",a[i]);
                                                            printf("%6d",a[i]);
                                                                                                                    printf("%6d",a[i]);
for(i=0;i<n-1;i++)
                                                        for(i=0;i<n-1;i++)
                                                                                                                  for(i=1;i<=n-1;i++)
                                                            for(j=0;j<n-i-1;j++)
    min=i;
     for(j=i+1;j<n;j++){
                                                              if(a[j]>a[j+1]){
                                                                                                                    t=a[i];
        if(j=i+1;j<=n-1;j++)
                                                                t=a[i];
                                                                                                                    j=i-1;
              if(a[min]>a[j])
                                                                a[j]=a[j+1];
                 min=j;
                                                                 a[j+1]=t;
                                                                                                                    while(a[j]>t&&(j>=0))
        t=a[i];
        a[i]=a[min];
                                                          printf("\nSorted Array elements are\n");
                                                                                                                      a[j+1]=a[j];
        a[min]=t;
                                                          for(i=0;i<n;i++)
                                                                                                                      j=j-1;
                                                            printf("%6d",a[i]);
                                                          return 0;
                                                                                                                    a[j+1]=t;
  printf("\nSorted Array elements are\n");
  for(i=0;i<n;i++)
    printf("%6d",a[i]);
                                                                                                                 printf("\nSorted Array elements are\n");
                                                                                                                 for(i=0;i<n;i++)
                                                                                                                    printf("%6d",a[i]);
 return 0;
                                                                                                                  return 0;
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```
Programs to Arrange the elements of array(list) in ascending order using pointers
                                                                            Bubble sort
                   Selection Sort
                                                                                                                                  Insertion Sort
                                                       #include <stdio.h>
                                                                                                              #include <stdio.h>
#include <stdio.h>
int main()
                                                       int main()
                                                                                                               int main()
  int a[100],n,i,j,t,*p;
                                                         int a[100],n,i,j,t,*p;
                                                                                                                 int a[100],n,i,j,t,*p;
  printf("Enter Array size\n");
                                                         printf("Enter Array size\n");
                                                                                                                 printf("Enter Array size\n");
  scanf("%d",&n);
                                                         scanf("%d",&n);
                                                                                                                 scanf("%d",&n);
  printf("Enter %d elements of Array\n",n);
                                                         printf("Enter %d elements of Array\n",n);
                                                                                                                 printf("Enter %d elements of Array\n",n);
  for(i=0;i<n;i++)
                                                         for(i=0;i<n;i++)
                                                                                                                 for(i=0;i<n;i++)
    scanf("%d",&a[i]);
                                                            scanf("%d",&a[i]);
                                                                                                                   scanf("%d",&a[i]);
  printf("Entered Array elements are\n");
                                                         printf("Entered Array elements are\n");
                                                                                                                 printf("Entered Array elements are\n");
  for(i=0;i<n;i++)
                                                         for(i=0;i<n;i++)
                                                                                                                 for(i=0;i< n;i++)
    printf("%6d",a[i]);
                                                           printf("%6d",a[i]);
                                                                                                                   printf("%6d",a[i]);
p=a;
                                                        p=a;
                                                                                                                p=a;
for(i=0;i<n-1;i++)
                                                        for(i=1;i<n-1;i++)
                                                                                                                 for(i=1;i<=n-1;i++)
    min=i;
                                                           for(j=0;j< n-i;j++)
     for(j=i+1;j<n;j++){
                                                                                                                   t=*(p+i);
                                                              if(*(p+j)]>*(p+j+1)){
        if(j=i+1;j<=n-1;j++)
                                                               t=*(p+j);
                                                                                                                   j=i-1;
              if(*(p+min)>*(p+j))
                                                                *(p+j)=*(p+j+1);
                     min=j;
                                                                 *(p+j+1)=t;
                                                                                                                   while(*(p+j)>t&&(j>=0))
        t=*(p+i);
        *(p+i)=*(p+min);
                                                         printf("\nSorted Array elements are\n");
                                                                                                                     *(p+j+1)=*(p+j);
        *(p+min)=t;
                                                         for(i=0;i<n;i++)
                                                                                                                     j=j-1;
                                                            printf("%6d",a[i]);
                                                                                                                    *(p+j+1)=t;
  printf("\nSorted Array elements are\n");
                                                         return 0;
  for(i=0;i<n;i++)
                                                                                                                 printf("\nSorted Array elements are\n");
    printf("%6d",a[i]);
                                                                                                                 for(i=0;i<n;i++)
                                                                                                                   printf("%6d",a[i]);
 return 0;
                                                                                                                 return 0;
```

```
Programs to Arrange the elements of array(list) in ascending order using functions
                                                                             Bubble sort
                   Selection Sort
                                                                                                                                    Insertion Sort
#include <stdio.h>
                                                        #include <stdio.h>
                                                                                                                 #include <stdio.h>
void selection(int a[],int n);
                                                        void bubble(int a[],int n);
                                                                                                                 void insertion (int a[],int n);
int main()
                                                        int main()
                                                                                                                 int main()
  int a[100],n,i;
                                                           int a[100],n,i;
                                                                                                                   int a[100],n,i;
  printf("Enter Array size\n");
                                                          printf("Enter Array size\n");
                                                                                                                   printf("Enter Array size\n");
  scanf("%d",&n);
                                                          scanf("%d",&n);
                                                                                                                   scanf("%d",&n);
  printf("Enter %d elements of Array\n",n);
                                                          printf("Enter %d elements of Array\n",n);
                                                                                                                   printf("Enter %d elements of Array\n",n);
  for(i=0;i< n;i++)
                                                           for(i=0;i<n;i++)
                                                                                                                   for(i=0;i<n;i++)
    scanf("%d",&a[i]);
                                                            scanf("%d",&a[i]);
                                                                                                                     scanf("%d",&a[i]);
                                                                                                                   printf("Entered Array elements are\n");
  printf("Entered Array elements are\n");
                                                           printf("Entered Array elements are\n");
                                                          for(i=0;i<n;i++)
                                                                                                                   for(i=0;i<n;i++)
  for(i=0;i<n;i++)
    printf("%6d",a[i]);
                                                             printf("%6d",a[i]);
                                                                                                                     printf("%6d",a[i]);
selection(a,n);
                                                         bubble(a,n);
                                                                                                                 insertion(a,n);
 printf("\nSorted Array elements are\n");
                                                           printf("\nSorted Array elements are\n");
                                                                                                                 printf("\nSorted Array elements are\n");
  for(i=0;i<n;i++)
                                                           for(i=0;i<n;i++)
                                                                                                                   for(i=0;i< n;i++)
    printf("%6d",a[i]);
                                                             printf("%6d",a[i]);
                                                                                                                     printf("%6d",a[i]);
                                                                                                                   return 0;
 return 0;
                                                           return 0;
                                                                                                                 void insertion (int a[],int n){
void selection(int a[],int n){
                                                        void bubble(int a[],int n){
                                                                                                                    int i,j,t;
                                                           int i,j,t;
  int i,j,t;
                                                                                                                    for(i=1;i<=n-1;i++)
for(i=0;i<n-1;i++)
                                                        for(i=1;i<n-1;i++)
                                                            for(j=0;j<n-i;j++)
    min=i;
                                                                                                                     t=a[i];
                                                               if(a[j]>a[j+1]){
     for(j=i+1;j<n;j++){
                                                                                                                     j=i-1;
        if(j=i+1;j<=n-1;j++)
                                                                                                                     while(a[j]>t&&(j>=0))
                                                                 t=a[i];
               if(a[min]>a[i])
                                                                 a[i]=a[i+1];
                                                                                                                       a[j+1]=a[j];
                    min=j;
                                                                 a[j+1]=t;
        t=a[i];
                                                                                                                       j=j-1;
        a[i]=a[min];
                                                                                                                     a[j+1]=t;
        a[min]=t;
```