#include<stdio.h>

#include<sys/types.h>

#include<ctype.h>

#include<stdlib.h>

#include<unistd.h>

#include<sys/wait.h>

void asc(int \*,int);

void dsc(int\*,int);

int main(){

int \*a,n,i;

pid\_t pid;

printf("\nEnter the Number of Array Elements : ");

scanf("%d",&n);

a=(int\*)malloc(n\*sizeof(int));

printf("\nEnter the Array elements : ");

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

printf("\na[%d] : ",i);

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

}

printf("\n");

pid=fork();

if(pid<0){

perror("Fork Error\n");

}

else if(pid==0){

printf("Child Process ID : %ld",(long)getpid());

}

else{

printf("Parent Process ID : %ld",(long)getpid());

}

switch(pid){

case -1:

printf("\nFork Error\n");

exit(-1);

case 0:

printf("\nChild Executes...\n");

//system("ps -elf");

asc(a,n);

exit(pid);

default:

//wait(NULL);

printf("\nParent Executes...\n");

dsc(a,n);

system("ps -elf");

exit(pid);

}

}

void asc(int \*a,int n){

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

for(int j=0;j<n;j++){

if(a[i]>a[j]){

int temp=a[i];

a[i]=a[j];

a[j]=temp;

}

}

}

printf("\nArray in Ascending Order is : ");

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

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

}

printf("\n");

}

void dsc(int \*a,int n){

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

for(int j=0;j<n;j++){

if(a[i]<a[j]){

int temp=a[i];

a[i]=a[j];

a[j]=temp;

}

}

}

printf("\nArray in Decending order is : ");

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

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

printf("\n");

}