Assignment No 5

Write a function template selection Sort. Write a program that inputs, sorts and outputs an integer array and a float array

```
#include <iostream>
#include<stdlib.h>
#include<string.h>
using namespace std;
template<typename T>
void sort(T a[],int n)
{
int pos;
T temp;
for(int i=0;i<n-1;i++)
{
pos=i;
for(int j=i+1;j<n;j++)
{
if (a[j]<a[pos])
pos=j;
}
if (pos!=i)
{
temp=a[i];
a[i]=a[pos];
a[pos]=temp;
}
}
//display ele
cout<<"sorted elements are ";
for(int k=0;k<n;k++)
{
cout<<"\n"<<a[k];
}
}
int main()
{
int ch;
int no;
int ele;
int fno;
while(1)
{
```

```
cout<<"\nmenu \n1.int sorting\n2.char sorting\n3.float sorting\n4.exit";
cout<<"\nEnter choice";
cin>>ch;
switch(ch)
{
case 1:
cout<<"\ninteger sorting\n";
cout<<"\nenter no of element to be sorted\n";
cin>>no;
int sor1[100];
cout<<"\nenter element\n";
for(int i=0;i<no;i++)
{
cin>>sor1[i];
}
sort<int>(sor1,no);
break;
case 2:
cout<<"\ncharacter sorting\n";
cout<<"\nenter no of element to be sorted\n";
cin>>ele;
char sor2[100];
cout<<"\nenter element\n";
for(int i=0;i<ele;i++)
{
cin>>sor2[i];
}
sort<char>(sor2,ele);
break;
case 3:
cout<<"\nfloating type sorting\n";
cout<<"\nenter no of element to be sorted\n";
cin>>fno;
float sor3[100];
cout<<"\nenter element\n";
for(int i=0;i<fno;i++)
{
cin>>sor3[i];
}
sort<float>(sor3,fno);
break;
case 4:
exit(0);
```

```
}
}
return 0;
}
```

Output:

```
menu
1.int sorting
2.char sorting
3.float sorting
4.exit
Enter choice3
floating type sorting

enter no of element to be sorted
3
enter element
7.7
3.4
1.2
sorted elements are
1.2
3.4
7.7
menu
1.int sorting
2.char sorting
3.float sorting
4.exit
Enter choice
```