**Assignment No-4**

**Problem statement :-**

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

**Aim:-**

To understand concept of template function.

**Description:-**

In this problem statement state that how to use template function and how to enter the multiple type of input in one program without define data type.

**OOP concept:-**

**Template function:-**

Template function is used to accept multiple data type of input in one program without defining data type.Functiontemplates are special **functions** that can operate with generic types. This allows us to create a **function template** whose functionality can be adapted to more than one type or class without repeating the entire code for each type. In **C++** this can be achieved using **template** parameters.

**Syntax-**

***template <class variable\_name>***

**Program code:-**

**#include<iostream>**

**using namespace std;**

**template<class T>**

**T selectionsort(){**

**T a[10];**

**T temp;**

**cout<<"The unsorted array: ";**

**for(int i=0;i<10;i++){**

**cout<<"\n"<<"a["<<i<<"]=";**

**cin>>a[i];**

**}**

**for(int i=0;i<10;i++){**

**for(int j=i+1;j<10;j++){**

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

**temp=a[i];**

**a[i]=a[j];**

**a[j]=temp;**

**}**

**}**

**}**

**for(int i=0;i<10;i++){**

**cout<<a[i]<<"\n";**

**}**

**}**

**int main(){**

**cout<<"Integer sorting: \n";**

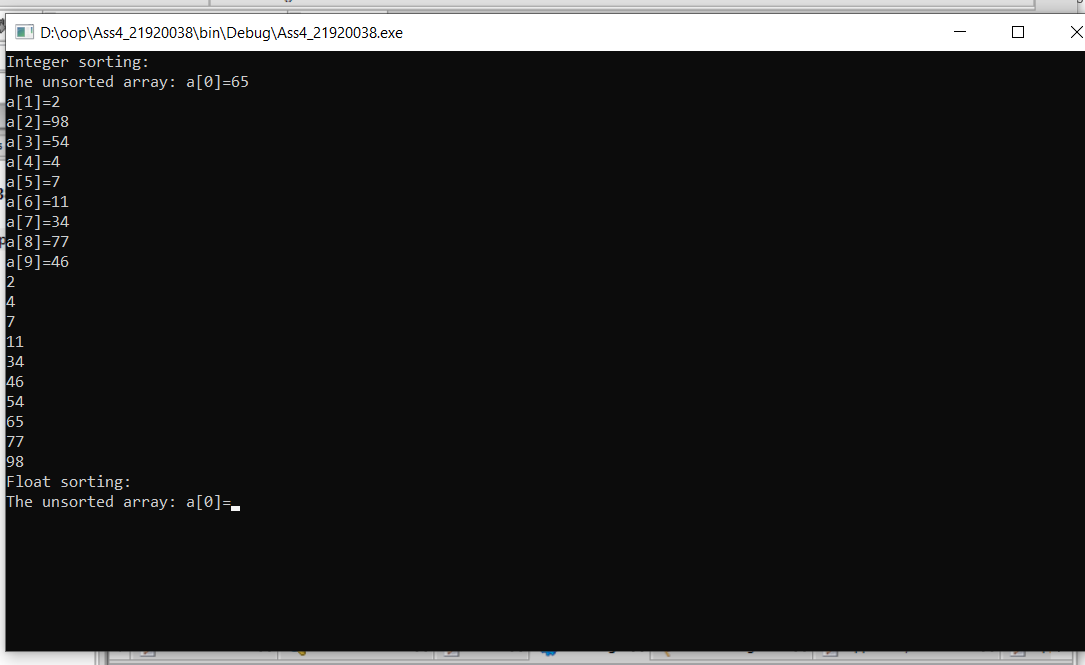
**selectionsort<int>();**

**cout<<"Float sorting: \n";**

**selectionsort<float>();**

**}**

**Output:-**

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