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Subject:OOPCGL

Assignment No.:8

Code:

```
#include<iostream>
```

```
using namespace std;
```

```
template<class T>
```

```
void selection_sort(){
```

```
    int n;
```

```
    cout<<"Enter the number of elements in the  
array\n";
```

```
    cin>>n;
```

```
    T arr[n];
```

```
    cout<<"Enter the numbers\n";
```

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

cin>>arr[i];

}

//selection_sort
for(int i=0;i<n-1;i++){
int minimum=i;
for(int j=i;j<n;j++){
if(arr[minimum]>arr[j]){
minimum=j;
}
}
swap(arr[minimum],arr[i]);
}

for(int i=0;i<n;i++){
cout<<arr[i]<<" ";
```

```

    }
}

int main(){
    int a;

    cout<<"Enter the data type for which you want to
    sort\n1)INTEGER \n2)FLOAT\n";

    cin>>a;

    if(a==1){
        selection_sort<int>();
    }

    else if(a==2){
        selection_sort<float>();
    }

    return 0;
}

```

Output:

```
"C:\Users\Amay\Documents\21154_Amay oopcgl assignment no 8.exe"
Enter the data type for which you want to sort
1)INTEGER
2)FLOAT
1
Enter the number of elements in the array
5
Enter the numbers
5
4
3
2
1
1 2 3 4 5
Process returned 0 (0x0)   execution time : 8.549 s
Press any key to continue.
```