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//This is the implementation file: pffarray.cpp.  
//This is the implementation of the template class PFFArray.  
//The interface for the template class PFFArray is in the file pffarray.h.
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```
#include "pffarray.h"  
#include <iostream>  
using std::cout;  
  
namespace PFFArraySavitch {  
template<class T>  
PFFArray<T>::PFFArray() :  
    capacity(50), used(0) {  
    a = new T[capacity];  
}  
  
template<class T>  
PFFArray<T>::PFFArray(int size) :  
    capacity(size), used(0) {  
    a = new T[capacity];  
}  
  
template<class T>  
PFFArray<T>::PFFArray(const PFFArray<T>& pfaObject) :  
    capacity(pfaObject.getCapacity()), used(pfaObject.getNumberUsed()) {  
    a = new T[capacity];  
    for (int i = 0; i < used; i++)  
        a[i] = pfaObject.a[i];  
}  
  
template<class T>  
void PFFArray<T>::addElement(const T& element) {  
    if (used >= capacity) {  
        cout << "Attempt to exceed capacity in PFFArray.\n";  
        exit(0);  
    }  
    a[used] = element;  
    used++;  
}  
  
template<class T>  
bool PFFArray<T>::full() const {  
    return (capacity == used);  
}  
  
template<class T>  
int PFFArray<T>::getCapacity() const {  
    return capacity;  
}  
  
template<class T>  
int PFFArray<T>::getNumberUsed() const {  
    return used;  
}  
  
template<class T>
```

```

void PFArray<T>::emptyArray() {
    used = 0;
}

template<class T>
T& PFArray<T>::operator[](int index) {
    if (index >= used) {
        cout << "Illegal index in PFArray.\n";
        exit(0);
    }

    return a[index];
}

template<class T>
PFArray<T>& PFArray<T>::operator=(const PFArray<T>& rightSide) {
    if (capacity != rightSide.capacity) {
        delete[] a;
        a = new T[rightSide.capacity];
    }

    capacity = rightSide.capacity;
    used = rightSide.used;
    for (int i = 0; i < used; i++)
        a[i] = rightSide.a[i];

    return *this;
}

template<class T>
PFArray<T>::~~PFArray() {
    delete[] a;
}
} // PFArraySavitch

```