

## Programming Assignment #2 FAQ

Here are some popular Questions and Answers for this assignment.

1. **Question: If I'm keeping the list sorted using the `insert` and the client calls the `push_back` method, they will mess up the sort. Do I have to re-sort the entire list after they call `push_back`?**

**Answer:** No. The client (driver) will only call *insert* or *push\_back/push\_front*. It will never mix them so you don't have to worry about that. When the *insert* method is used, you can assume that all of the items have been placed into the list with *insert*. The same is true for the *push\_back/push\_front* methods; they only work with unsorted lists.

2. **Question: I'm getting weird errors from the compilers when I try to build my code. The errors say something about a bad token '<'. What's wrong?**

**Answer:** You probably are including the implementation file twice. Remember, it's a templated class, so you have to include the implementation with the header file. Since it's already included in the header, adding it to the project or on the command line causes the code to be added twice. See the command line posted for an example of correct usage.

3. **Question: I'm making a function that returns a `BNode *` but the compiler is complaining that it doesn't know what a `BNode` is. What's wrong?**

**Answer:** You probably forgot to use the keyword **typename** with the return value. Here's an example of how you would specify a function called `make_node` that creates a node:

```
template <typename T, unsigned Size>
typename BList<T, Size>::BNode *BList<T, Size>::make_node(const T& Item)
    const throw (BListException)
```

The keyword in **RED** above is probably what's missing. Since `BList` is a templated class, the compiler doesn't know the type of `T` yet, so it can't look for `BNode`. Since it can't look it up, it *assumes* that `BNode` is a member variable of `BList`, which doesn't make sense when the compiler expects to find a type. (It is the return-**type** afterall). In order to tell the compiler that `BNode` is a type and not a member variable, use the **typename** keyword.

Refer to your CS225 notes for more information.