

Header Files

- Put class (data + function) definitions in .h file and all function implementation of the class in .cpp file.
 - Interfaces are often designed by architect.
 - Clients of your classes do not need implementation details.
- To prevent being included twice

```
#ifndef MY_HEADER
#define MY_HEADER
//your declarations
#endif
```
- `#include "MyHeader.h"`: search in current directory
 - May check include search path if not found there
 - Used for your own header files
- `#include <iostream>` : search in "include search path"
 - Used for system header files

Namespace

- Prevent naming conflicts
 - C++ has a standard string class. But what if IBM also developed a string class?
- Declare namespace:

```
namespace IbmStringPackage {
    class string{
        //IBM implementation of string class
    }
}
```
- Two ways to use IBM string class:
 - (1) Use `IbmStringPackage::string` as the class name
 - (2) Declare "using namespace IbmStringPackage;" first, then use `string` as class name. But in this case, you cannot declare "using namespace std;".