

Using Objects

Object-Oriented Programming with C++

Safe way to read a
string in?

std::string

The string class

- You must add this at the head of you code
 - `#include <string>`
- Define variable of string like other types
 - `string str;`
- Initialize it w/ string contant
 - `string str = "Hello";`
- Read and write string w/ cin/cout
 - `cin >> str;`
 - `cout << str;`

Assignment for string

```
char char1[20];
```

```
char char2[20] = "jaguar";
```

```
string str1;
```

```
string str2 = "panther";
```

```
char1 = char2; // illegal
```

```
str1 = str2;    // legal
```

Concatenation for string

- `string str3;`
- `str3 = str1 + str2;`
- `str1 += str2;`
- `str1 += "lalala";`

Ctors

- `string (const char *cp, int len);`
- `string (const string& s2, int pos);`
- `string (const string& s2, int pos, int len);`

Sub-string

- `substr (int pos, int len);`

Alter string

- `assign (...);`
- `insert (...);`
- `insert (int pos, const string& s);`
- `erase (...);`
- `append (...);`
- `replace (int pos, int len, const string& s);`

Search string

- `find (const string& s);`

File I/O

- `#include <ifstream>` `// read from file`
- `#include <ofstream>` `// write to file`

```
ofstream File1("C:\\test.txt");  
File1<<"Hello world"<<std::endl;
```

```
ifstream File2("C:\\test.txt");  
std::string str;  
File1>>str;
```

- Assignment 001 on PTA
 - due in 2 weeks