

String Operations Contd

Solutions

- Explain what the `append()` member function of `std::string` does
 - Adds its argument at the end of the string
- In the code below, what are the final values of `hello` and `hello2`?

```
string hello {"Hello"};  
hello.append(" world");           // hello = "Hello world"  
string hello2 {"Hello"};  
hello2.append("wow!!!!", 3, 2);    // hello2 = "Hello!!"
```

- Write a program to check your answer

- Explain what the insert() member function of std::string does
 - Adds characters before a specified position in the string
- In the code below, what is the final value of hello?

```
string hello { "hello" };  
hello.insert(4, "eh");  
hello.insert(6, 3, '.');  
hello.insert(6, 1, '.');           // hello = "helleh....o"
```

- Write a program to check your answer

- Convert the code below into a working program. What results do you expect?

```
string hello { "hello" };  
hello.insert(4, "eh");  
hello.insert(6, 3, '.');  
hello.insert(6, 1, '.');  
string dol {"Dolly"};  
hello.insert(4, dol, 1, 3);  
size_t opos = hello.find('o');  
if (opos != string::npos)  
    hello.insert(opos, "OOO");           // hello = "hellOOOolleh....o"
```

- What does the `std::string erase()` member function do?
 - It removes a number of characters from the string, starting at a given position
- Add the following code to your program from the last exercise. What result do you expect?

```
size_t oopos = hello.find('O');  
hello.erase(oopos, 3);           // hello = "hellolleh....o"
```

- Explain what the code below does
- Convert it into a working program
- What results do you expect?

```
string pi { to_string(3.14159) };    // convert 3.14159 to string and initialize pi with it
hello += pi;                        // Append string variable pi to string hello
cout << stoi(pi) << endl;           // Display pi as an integer number
cout << stod(pi) << endl;          // Display pi as a floating-point number
```

- Explain what the code below does
- Convert it into a working program
- What results do you expect?

<code>string hi { "Hello" };</code>	<code>// Initialize hi as "Hello"</code>
<code>string howdy { 'H', 'e', 'l', 'l', 'o' };</code>	<code>// Initialize howdy as "Hello"</code>
<code>string triplex(3, 'x');</code>	<code>// Initialize triplex as "xxx"</code>
<code>string hello(hi, 1);</code>	<code>// Initialize hello as "ello"</code>
<code>string hello2(hi, 1, 3);</code>	<code>// Initialize hello2 as "ell"</code>