

# CS 202 Homework 0

Dr. Lawlor, lawlor@alaska.edu, 2010-01-21

This document also available electronically at the course website.

HINT: Running both my code, and your new code is highly encouraged!

Turn in a paper copy Thursday 2010-01-28 at the beginning of class.

0.) Your UAF email: \_\_\_\_\_@alaska.edu

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1.) Why does this code print "3"!?

```
int a=2, b=3;
if (a=b) { cout<<a; }
```

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2.) Which of these user input loops sometimes skips the cin entirely?

- a.) `int i; do { cin>>i; } while (i<0 || i>=10);`
- b.) `int i; while (i<0 || i>=10) { cin>>i; }`
- c.) `int i; for (i=-1;i<0||i>10;cin>>i) {}`

Why? \_\_\_\_\_

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3.) This user-input program goes into an infinite loop if you enter "a". Please fix it.

```
int i=-1; while (i<0 || i>=10) { cout<<"An int?\n"; cin>>i; }
```

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4.) Which implementation is better?

- a.) `char name[10]; cin>>name;`
- b.) `string name; cin>>name;`

Why? \_\_\_\_\_

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5.) Make this program print the same things, but without ever using "string":

```
string name; cin>>name;
string sirname="my good friend "+name+", Esq.";
cout<<"Greetings, "+sirname+"! How long have we known each other, "+sirname+"?\n";
```

---

6.) Write a function to return the j'th string's k'th letter. Return '@' if j or k is invalid.

```
struct triString { char extractLetter(triString t,int j,int k) {  
    string s0;  
    string s1;  
    string s2;  
};
```

```
}
```

(For example, "extractLetter(t,2,7)" would return t.s2[7].)

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7.) What does this code print? \_\_\_\_\_

```
const char *str="mtzlpvk"; const char *ptr=&str[4];  
cout<<*ptr++; cout<<*ptr++;
```

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8.) Please rewrite "mystrup" to use simple array indexing, not this weird pointer arithmetic:

```
void mystrup(char *dest,const char *src) {  
    while (0!= (*dest++ = toupper(*src++))) {}  
}
```

---

9.) Which compiler/IDE do you usually use?

Visual C++  Dev-Cpp  Code::Blocks  XCode  make/g++ \_\_\_\_\_

Which OS do you usually use?  XP  Vista  Windows 7  OS X  Linux

Which languages are you comfortable writing in? (check all that apply)

C++  C#  Java  Plain C  Perl  PHP  Python  Ruby \_\_\_\_\_

(Score: 0 points. Pure curiosity on my part, although it does determine what I'll cover...)