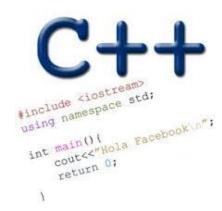
CONTROL FLOW (CONTD.) FILE IO

Problem Solving with Computers-I

https://ucsb-cs16-wi17.github.io/





Announcements

- Lab 01 should be done individually
- Please read the lab thoroughly before Wednesday section!
- Homeworks should be submitted in the provided template

Clickers out – frequency AB

Review: for loops

```
for( int x = 0; x < 50; x++ ) {
  callFunctionOne();
  callFunctionTwoTwo();
}</pre>
```

Identify the code that is not equivalent to the other two? Assume 'n' is an integer that has already been declared

```
for ( int x = 0; x < n; x++ ) {
  statementOne();
  statementTwo();
 int x = 0;
 while (x < n) {
   statementOne();
   statementTwo();
   X++;
```

```
C. int x = 0;
    do{
        statementOne();
        statementTwo();
        x++;
    } while(x < n);</pre>
```

D. They are ALL equivalent

Infinite loops

```
for (int y=0; y<10; y--)
    cout<<"Print forever\n";</pre>
int y=0;
for(;;y++)
    cout<<"Print forever\n";</pre>
int y=0;
for(;y<10;);
    y++;
int y=0;
while (y<10)
    cout<<"Print forever\n";</pre>
int y=0;
while (y=2)
     y++;
```

Fizzbuzz

Fizzbuzz(1) 1

Fizzbuzz(2) 2

Fizzbuzz(3) fizz

Fizzbuzz(4)

Fizzbuzz(5) buzz

Fizzbuzz(6) fizz

Fizzbuzz(7) 7

Fizzbuzz(8) 8

Fizzbuzz(9) fizz

Fizzbuzz(10) buzz

Fizzbuzz(15) fizzbuzz

Let's code Fizzbuzz!

Passing arguments to main: ./fizzbuzz number

```
int main(int argc, char* argv[] ) {
   if (argc != 2)
        cerr<<"Usage: "<<argv[0]<< " <number>\n";

   //stoi is only available in C++11
   fizzbuzz(stoi(argv[1]));
   return 0;
}
```

Which of the following will cause a run-time error, causing it to crash?

- A. \$./fizzbuzz 1000
- B. \$./fizzbuzz 1 2 3
- C. \$./fizzbuzz abc
- D. B and C
- E. A, B and C

FILE IO:

```
ifstream ifs;
ifs.open("numbers.txt");
ifs.fail();
getline(ifs, line);
ifs.eof();
```

Which of the following is TRUE?

- A. The usage of the 'open' function shown above is incorrect
- B. getline(ifs, line) repeatedly reads a line from file until all lines have been read
- C. If the file "numbers.txt" does not exist, the following statement will result in a run-time error: ifs.open("numbers.txt");
- D. Each time getline (ifs, line) is called, the program reads the next line in the file
- E. All the above statements are true

FILE IO: Which of the following is correct?

C. Both A and B are correct

```
B.
while(!ifs.eof()){
    getline(ifs, line);
    fizzbuzz(stoi(line));
}
```

D. Neither is correct

Next time

Number and data representation