

# CONTROL FLOW (CONTD.)

## FILE IO

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Problem Solving with Computers-I

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

C++

```
#include <iostream>
using namespace std;

int main(){
    cout<<"Hola Facebook\n";
    return 0;
}
```



# Announcements

- Lab 01 should be done individually
- Homeworks should be submitted in the provided template

Clickers out – frequency AB

# How is the pace of the class?

- A. Too fast
- B. Too slow
- C. It's alright

# Review of loops

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

**A.**

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

**B.**

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

**C.**

```
int x = 0;  
do{  
    statementOne();  
    statementTwo();  
    x++;  
} while(x < n);
```

**D.** All three are equivalent

# Fizzbuzz

<b>Fizzbuzz(1)</b>	<b>1</b>
<b>Fizzbuzz(2)</b>	<b>2</b>
<b>Fizzbuzz(3)</b>	<b>fizz</b>
<b>Fizzbuzz(4)</b>	<b>4</b>
<b>Fizzbuzz(5)</b>	<b>buzz</b>
<b>Fizzbuzz(6)</b>	<b>fizz</b>
<b>Fizzbuzz(7)</b>	<b>7</b>
<b>Fizzbuzz(8)</b>	<b>8</b>
<b>Fizzbuzz(9)</b>	<b>fizz</b>
<b>Fizzbuzz(10)</b>	<b>buzz</b>
<b>Fizzbuzz(15)</b>	<b>fizzbuzz</b>

**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?

**A.**

```
while (1) {  
    getline(ifs, line);  
    if (ifs.eof())  
        break;  
    fizzbuzz(stoi(line));  
}
```

**B.**

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

**C.** Both A and B are correct

**D.** Neither is correct



# Next time

- Number and data representation