

Lec 7: Statements

If statement

- **if** (condition)
{
 statement
}**else**
{
 statement
}
- **if**(condition)
{
 statement
}**else if**(condition)
{
 statement
}
- (condition) ? result_if_true : result_if_false
- example: max = (a>b)?a:b;

For loop

- The format for for loop is

```
for(initialization; condition; increase or decrease)  
{  
    statement;  
}
```

- example:

```
for(int i=0; i<100;i++)  
{  
    cout<< i <<endl;  
}
```

While loop

- **while**(condition)
{
 statements;
}

- **do**
{
 statements;
}**while**(condition);

Example I

Example 1

- Write a program to reverse an integer;
- Example1: $x = 123$, return 321
- Example2: $x = -123$, return -321

Things to worry about?

- How to handle negative number?
- If the input is 10, 1010, what is the output?
- Did you notice that the reversed integer might overflow? (bigger than `INT_MAX`, or smaller than `INT_MIN`)

Example 2

- Convert Excel sheet column number to an integer.

For example:

A -> 1

B -> 2

C -> 3

...

Z -> 26

AA -> 27

AB -> 28