



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

COMP 110

Introduction to Programming

Fall 2015

Time: TR 9:30 - 10:45

Room: AR 121 (Hanes Art Center)

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Previous Class

- What did we discuss?



Today

- Announcements
 - Assignment 1 : Due TODAY @ 11:55 PM
<http://cs.unc.edu/~aikat/courses/comp110/assignments/Assignment1>
- More For Loops



For Statement

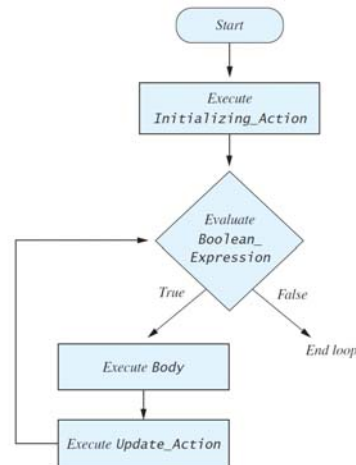
- Syntax:
 - **for** (*Initializing_Action*; *Boolean_Expression*;
Update_Action){
 Body;
}

```
for (count = 1; count <= number; count++) {  
    // all the actions  
}
```



For Statement

- Flow chart
 - `for (Initializing_Action;
Boolean_Expression;
Update_Action){
 Body;
}`



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For Loop: Infinite Loop

- Still, if you get things wrong, it may never end

```

int num = 3;
// initializing action; boolean expression; update action
for (count = 5; count >= num; count++)
{
    System.out.print(count + ", ");
}
  
```



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Ending a Loop

- If you know number of loop iterations?
 - Count-controlled loops
 - ***for(count = 0; count < iterations; count++)***
- User controlled ending
 - Ask-before-iterating (e.g. “yes/no”)
 - Sentinel value
- **break;**
 - Break statements cause any loop to exit immediately

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Exercise 1

- Ask user to input an integer
- If input is a one-digit number, then print the product of three consecutive integers, starting with the input
- If input is a two-digit number, then print the square of the number
- If input is a three or more digits, then quit the program with a message to user
- Setup a loop for the above to run this 5 times

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Local Variables

- Open Eclipse
- New Java project etc.. You know the drill!

```
public class test123 {  
    public static void main(String[] args)  
    {  
        int num1 = 5;  
        int count;  
  
        for (count = 0; count <= num1; count++){  
            System.out.println(count);  
        }  
    }  
}
```

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Local Variables

```
public class test123 {  
    public static void main(String[] args)  
    {  
        int num1 = 5;  
        int count;  
  
        for (count = 0; count <= num1; count++) {  
            int num2 = 10;  
            System.out.println(count);  
            System.out.println(num2);  
        }  
    }  
}
```

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Local Variables

```
public class test123 {  
    public static void main(String[] args)  
    {  
        int num1 = 5;  
        int count;  
  
        for (count = 0; count <= num1; count++) {  
            int num2 = 10;  
            System.out.println(count);  
            System.out.println(num2);  
        }  
        System.out.println(num2);  
    }  
}
```

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Next class

- More on loops

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