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EECS 10 DISCUSSION

7/10/12 Week3 Session1 Weiwei Chen

Muddiest Point Feedback

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- Not sure about if, if-else, while statement
- Conditional operator ? :
- Mathematical order of operations
- The knowledge of different types of variables and the usage of format specifiers
- Too many things to memorize
- How to use concept map
- How does Linux and the compiler work

Conditional Statements

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- If statement
- If-Else statement
- Switch statement
- Please take one minute to write down your understanding about the difference between these three conditional statements

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Conditional Statements

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- If statement
 - ▣ Handle one special case when the condition is true
- If-Else statement
 - ▣ Handle both the cases when the condition is true and false
 - ▣ Exclusive statement blocks for the if and else branch
- Switch statement
 - ▣ Handle multiple cases when the value of the switch expression has more than two values.

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Repetition Statements

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- while statement
- do-while statement
- for statement

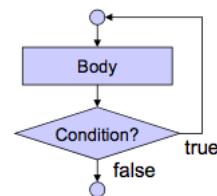
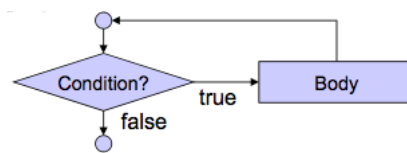
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Repetition Statements

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- while Statement
 - initialization
 -
 - while**(/*condition*/)
 - {
 - /*body;*/
 - /*including changing the condition variables*/
 - }
 - /*after while statements;*/
- do-while statement
 - initialization
 -
 - do {
 - /*body;*/
 - /*including changing the condition variables*/
 - } **while**(/*condition*/);
 - /*after do-while statements;*/



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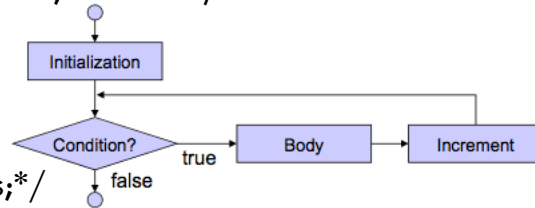
Repetition Statements

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□ *for* Statement

□ *for*(initialization; condition; increment)

```
{
  /*body;*/
}
/*after for statements;*/
```



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Repetition Statements

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- Write down you understanding about the differences between *while*, *do-while* and *for* statements.
- Please write down the C program code to get the summation of the first 10 positive natural numbers
 - Use the while statement
 - Use the do-while statement
 - Use the for statement

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Repetition Statements

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```

□ int sum = 0;
  int count = 1;
  while(count <= 10)
  {
    sum += count;
    count ++;
  }
  printf(...);

```

```

□ int sum = 0;
  int count = 1;
  do
  {
    sum += count;
    count ++;
  }while(count < 11);
  printf(...);

```

```

□ int sum = 0;
  int count;
  for(count = 1; count <=10; count ++ )
  {
    sum += count;
  }
  printf(...);

```

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Jump statements

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- **Structured jump statements**
 - **break** statement in **switch** statement
 - **break** and **continue** in **while** loop
 - **break** and **continue** in **do-while** loop
 - **break** and **continue** in **for** loop
- **Arbitrary jump statement**
 - **goto**

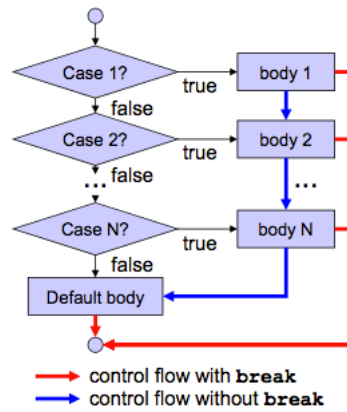
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Jump statements

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□ **break** statement in **switch** statement



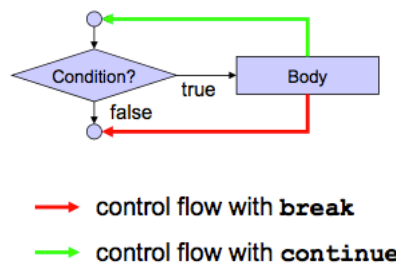
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Jump statements

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□ **break** and **continue** in **while** loop



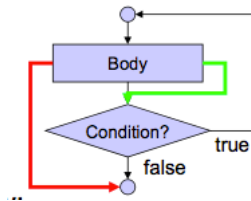
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Jump statements

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□ **break** and **continue** in **do-while** loop



→ control flow with **break**

→ control flow with **continue**

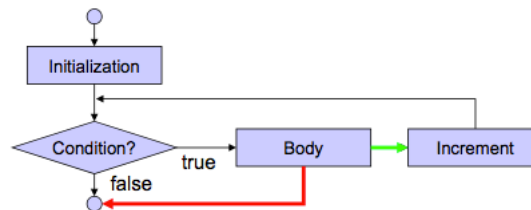
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Jump statements

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□ **break** and **continue** in **for** loop



→ control flow with **break**

→ control flow with **continue**

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Jump statements

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- **Structured jump statements**
 - **break** statement in **switch** statement
 - **break** and **continue** in **while** loop
 - **break** and **continue** in **do-while** loop
 - **break** and **continue** in **for** loop
- **Arbitrary jump statement**
 - **goto**
- Please refer to the slides for Lecture5 for more details

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Assignment Discussion

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- Programming == Thinking !!!
- Assignment 3, Part 1
- Guess a number game

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EECS10 LABORATORY

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Sequential Execution Order

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- The execution order of a C program is sequential
- What happens in the computer?
 - ▣ Let's use ddd (the gdb with graphical support on linux) to trace the execution of a C program
- Please pair up
- Please follow me and try the same thing on your own computers.
- Each pair, please use one computer and work together

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It is time to program!

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- Raise your hand if you need help