

new Topic: another loop!

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Java

Loops so far...

- There are many loop structures in Java
- We have already used two
 - while
 - for loop for arrays
- Here is another type of for loop
- Useful when you know how many times a block of code is repeated

- Need a new kind of loop (would be nice, not required)
- Really helpful when you know how many times an action needs to be repeated

while loop:

```
int c = 0;
while(c < 5)
{
    System.out.println(c);
    c++;
}
```

new for loop:

```
// this code does the same thing
for(int c = 0; c < 5; c++)
{
    System.out.println(c);
}
```

A Comment on Loops

- while loops are preferred when you don't know ahead of time how many times the action is repeated (like a guess-the-number-game)
- for loops are preferred when you do know how many times the action is repeated (like printing the American flag)
- Either loop can be made to behave like the other one
- You should know how they both work

Lab

- Write a Java program that:
 - asks the user to enter a word
 - outputs each letter of the word individually
 - outputs each letter on a new line in the command window
 - use only for loops