Loops

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Topics

- The while Loop
- Program Versatility
  - Sentinel Values and Priming Reads
- Checking User Input Using a while Loop
- Counter-Controlled (Definite) Repetition
- Event-Controlled (Indefinite) Repetition
- for Loops
- do-while Loops
- Choosing an Appropriate Loop
- Break and Continue Statements
Review: Repetition Structure

- A repetition structure allows the programmer to specify that an action is to be repeated while some condition remains true.
- There are three repetition structures in JavaScript, the while loop, the for loop, and the do-while loop.
The while Repetition Structure

while ( condition )
{
    statement(s)
}

- The braces are not required if the loop body contains only a single statement. However, they are a good idea and are required by the 104 Coding Standards.
Good Programming Practice

- Always place braces around the body of a while loop.

- Advantages:
  - Easier to read
  - Will not forget to add the braces if you go back and add a second statement to the loop body
  - Less likely to make a semantic error
Good Programming Practice

while (counter <= 10) {
    alert(" counter is " + counter );
    counter = counter + 1;
}
<html>
<head><title>My Page</title></head>
<body>
<script type="text/javascript">
var counter;
counter = 1;
while (counter <= 10) {
    alert(" counter is " + counter );
    counter = counter + 1;
}
</script>
</body>
</html>