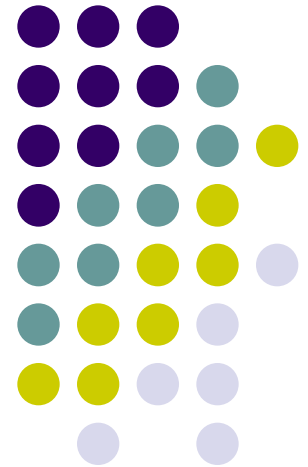


# Loops



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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>
```

