



# Announcements

- Reading:
  - \* For today
    - Chapters 18, 19, and 21 of *Fluency*
    - Chapter 1 of *QuickStart to JavaScript*
  - \* For Wednesday
    - Chapter 21 of *Fluency*



# Announcements

- Project 1B was due before Noon today



# Announcements

- Grades
  - \* TA's are students, too, and they are behind on grading
  - \* We'll get caught up as soon as we can



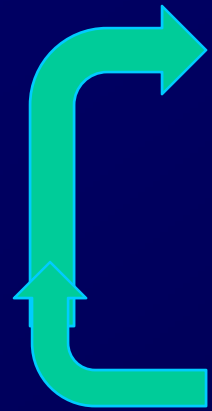
# Announcements

- New approach to grading labs
  - \* You answer questions and give the URL for your Web page in a Catalyst WebQ quiz
    - Open all week
    - Return to it again and again
    - “Open book” like all labs
    - It’s due on Monday at noon
    - No Collect It
    - No separate Word document



# Announcements

- New approach starts with today's lab!



1. Work on the lab for a while
2. Go to Catalyst WebQ
  1. Enter your Web page's URL
  2. Answer some questions
3. Repeat Steps 1 and 2 until done with the lab and the questions in WebQ.
4. Upload your lab to your Web space with sftp.
5. TA's check your Web page and assign more points.



# Announcements

- Advantages

- \* You get some feedback while you're working on the labs
- \* The questions in WebQ
  - Point you toward tricky parts of the lab.
  - Make sure you understand the materials.
- \* Because Catalyst does most of the grading, TA's can grade the rest of your work faster.



# Announcement

- Lab 5/6 counts as two labs
  - \* It takes longer than an hour
  - \* Work on it all week



# Announcements

- Weekly Quick Writes
  - \* Cover anything in lecture or reading
  - \* From the previous week or this week up to the day of the Quick Write
  - \* Can take place in any lecture
  - \* We drop your lowest two scores for the quarter





# Announcements

- Quizzes cover the last week's reading and lectures
- Pop quizzes can take place during any lab session
- We drop your lowest two scores for the quarter



# Announcements

- This week's pop quiz will cover
  - \* Chapter 10
  - \* Chapter 18 (pages 519-526 only)
- Next week's pop quiz will cover
  - \* The rest of chapter 18
  - \* Chapters 19, 20, and 21
  - \* Chapter 1 in *QuickStart*



# Keepin' on with the Program:

*Fundamental Programming  
Concepts Expressed in JavaScript  
(continued)*



# Comments

- HTML

<!-- HTML comments →

- JavaScript

//Single-line JavaScript comment

/\*Multi-line JavaScript comment  
continues for more than one line\*/



## Comments

- Annotate your code
  - \* Notes to yourself and that programmer six months down the road who has to change or add something to your program



## Exercise

- Part 1: Variable names
  - \* A name is a name is a name



## Three Basic Date Types of Javascript

- Numbers: 1345345
- Strings: "Americano"
- Booleans: true and false
  - \* These kind of values are called *data types* or just *types*



## Numbers

- Rules for Writing Numbers
  - \* There are no "units" or commas
  - \* Can have about 10 significant digits and can range from  $10^{-324}$  to  $10^{308}$





# Strings

- Strings are sequences of keyboard characters
- Strings are always surrounded by single ( ' ' ) or double quotes ( " " )
- Strings can initialize a declaration
  - \* `var hairColor = "black";`
- Quotes can nest
  - \* `firstLine = "Johnson called, 'Dude!'"`

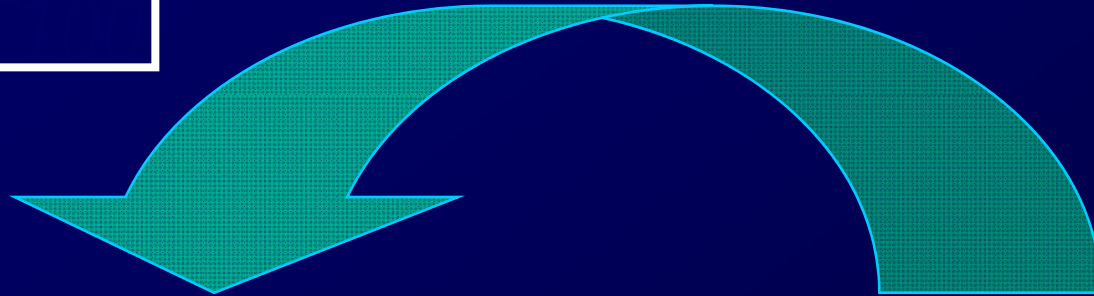


# Literals

- How string literals are stored
  - \* Quotes are removed (they are only used to delimit the string literal)
    - *Delimit* means that the quotes set the starting and stopping points of the literal
  - \* Any character can be stored in memory
    - Even a character that cannot be typed can be stored, using escape mechanism – in JavaScript, the backslash ( \ )



# Assignment Statement



**<Variable> <assignment><expression>**

- Flow moves from *right* to *left*.
- Results of the **<expression>** replace the value stored in the **<variable>**.

# Assigning Values to Variables and Variables to Variables



We can also assign one variable to another:

| Line | Assignment Statement                  | myName | yourName |
|------|---------------------------------------|--------|----------|
| 1    | <code>var yourName = "Sarah";</code>  |        | Sarah    |
| 2    | <code>var myName = "Andrea";</code>   | Andrea | Sarah    |
| 3    | <code>var yourName = myName;</code>   | Andrea | Andrea   |
| 4    | <code>var yourName = "myName";</code> | Andrea | myName   |



# Other Assignment Operators



| Line | Assignment Statement            | Value in myAge |
|------|---------------------------------|----------------|
| 1    | <code>var myage = 32;</code>    | 32             |
| 2    | <code>myAge = myAge + 2;</code> | 34             |
| 3    | <code>myAge += 2;</code>        | 36             |
| 4    | <code>myAge ++;</code>          | 37             |
| 5    | <code>myAge -= 3;</code>        | 34             |
| 6    | <code>myAge -;</code>           | 33             |



## Assignment

- Three Key Points

- \* `<variable ><operator><expression or value>`
- \* All three of the components must be given
  - if anything is missing, the statement is meaningless
- \* Flow of value to identifier is always right to left
- \* Values of any variables used in the expression are always their values before the start of the execution of the assignment



# Exercises

- Parts 2 and 3
  - \* What's the value of Dude?
  - \* Scissor, Rock, paper