MIS3690 WEB TECHNOLOGIES

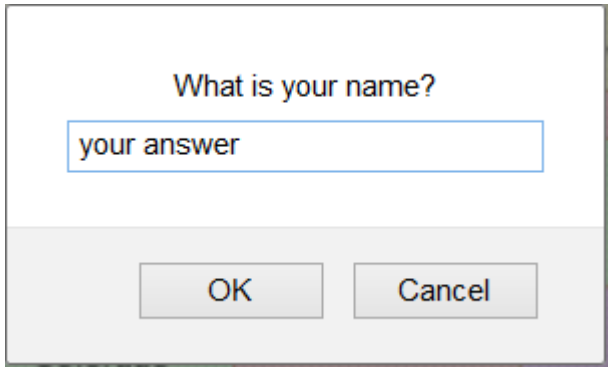
BABSON COLLEGE

TOIM DIVISION

CONDITIONAL STATEMENTS (OR "BRANCHING") IN JAVASCRIPT

NON-FORM INPUT: PROMPT()

- Syntax:
  - `myVar = prompt("What is your name?", "your answer");`
- Behavior:
  - The messages pop up in a message box, as shown here



  - User enters response and clicks OK
  - The user's response is stored in the variable "myVar"

JAVASCRIPT BRANCHING

- Branching or Conditional Statements are used to do different things based on different conditions
- Conditions
  - Arise from comparing two variables or values
  - Result is either true or false
- Example:
  - If two values are the same, do something
  - If two values are different, do something else
- Example:
  - If the password matches the user's password then allow the user to login
  - If the password does not match, then don't permit login

COMMON BRANCHING APPLICATIONS

- Change HTML depending on browser
- Make form dynamic
  - Depending on state, provide choice of cities
  - Depending on month, provide choice of dates
- Act based on what the user types in
  - If user enters *value1*, then do *action1*
  - If the user enters *value2*, then do *action2*
  - If the user enters nothing, then let the user know that he/she has to enter some value

CONDITIONAL STATEMENTS

- Syntax

```
if (condition)
   {
      //Some JavaScript statements;
   }
```

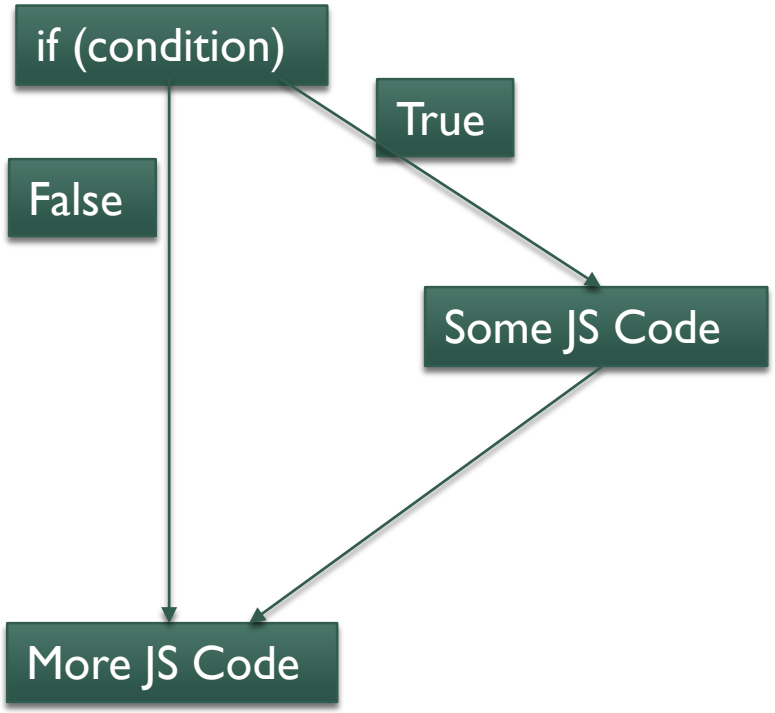
- Operation
  - The statements are run only if the condition is true. Otherwise, nothing happens
- Example:

```
if (x=="male")
    alert("Hello, sir!");
```

COMPARISON OPERATORS

- `a==b` Is a equal to b?
- `a!=b` Is a not equal to b?
- `a>b` Is a greater than b?
- `a>=b` Is a greater than or equal to b?
- `a<b` Is a less than b?
- `a<=b` Is a less than or equal to b?
- `(condition1) && (condition2)` Are both conditions true?
- `(condition1) || (condition2)` Is either condition true?
- `!(condition)` Is condition false?

SIMPLE BRANCHING WITHOUT ELSE



WRONG BRANCH!

USING MULTIPLE JS STATEMENTS

```
if (condition)
{
   //Statement 1;
   //Statement 2;
   //and a whole bunch of JavaScript statements;
}
```

- The parenthesis allow you to put more than one statement.
- All of the statements will execute if the condition is met (i.e., condition is true).

ADDING ALTERNATE STATEMENTS

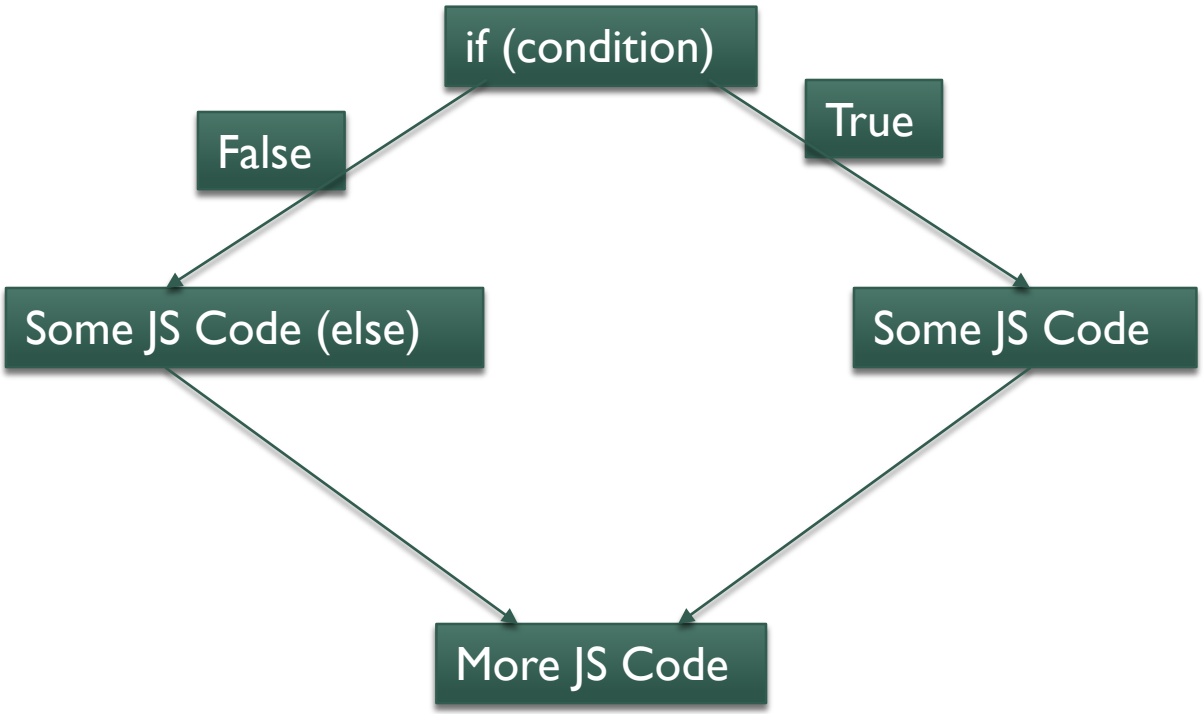
```
if (condition)
   {
      //JS statements
   }
   else
   {
      //different JS statements
   }
```

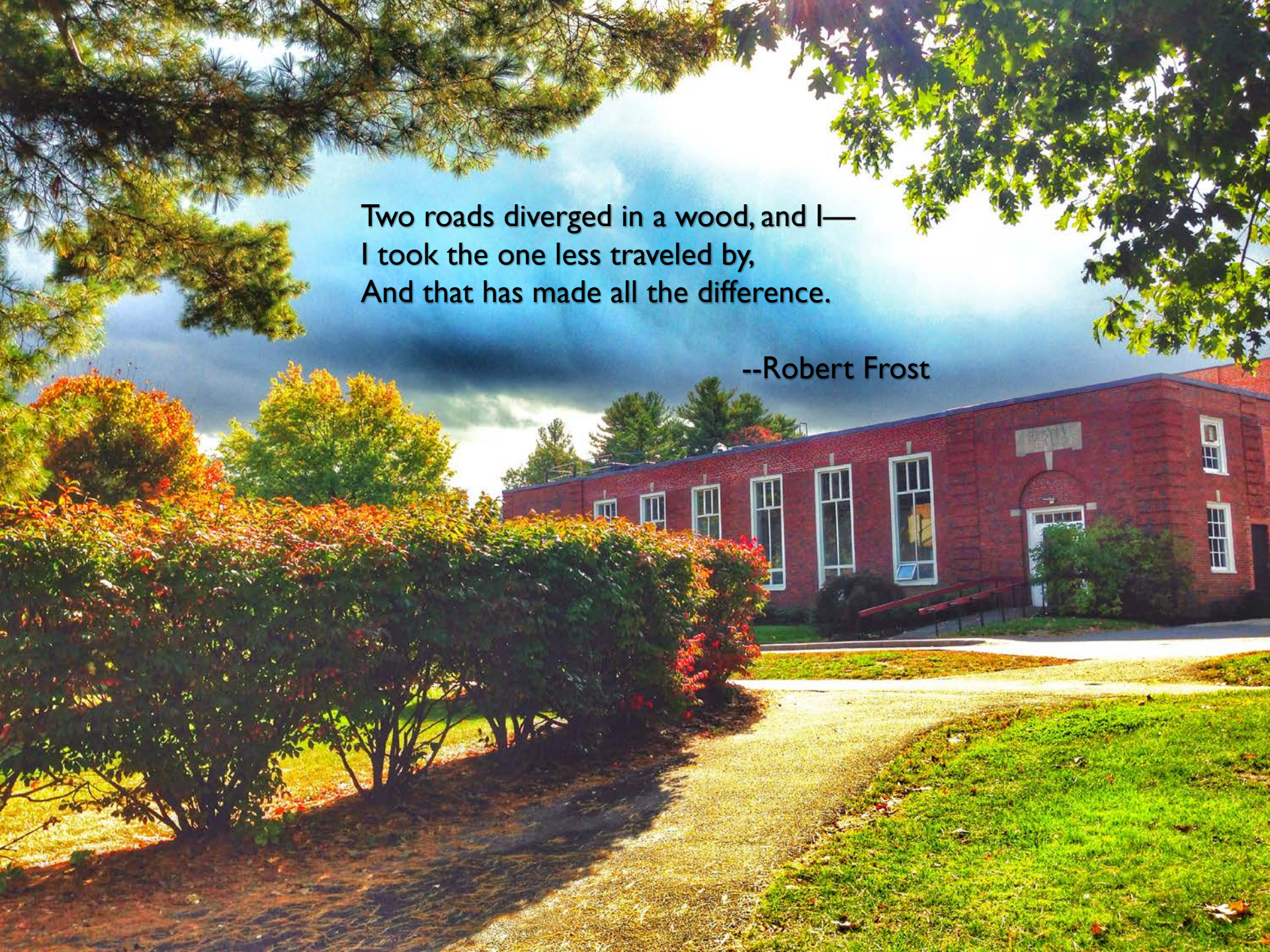
- If the condition is true, one set of statements is run
- If the condition is false, a different set is run

EXAMPLE

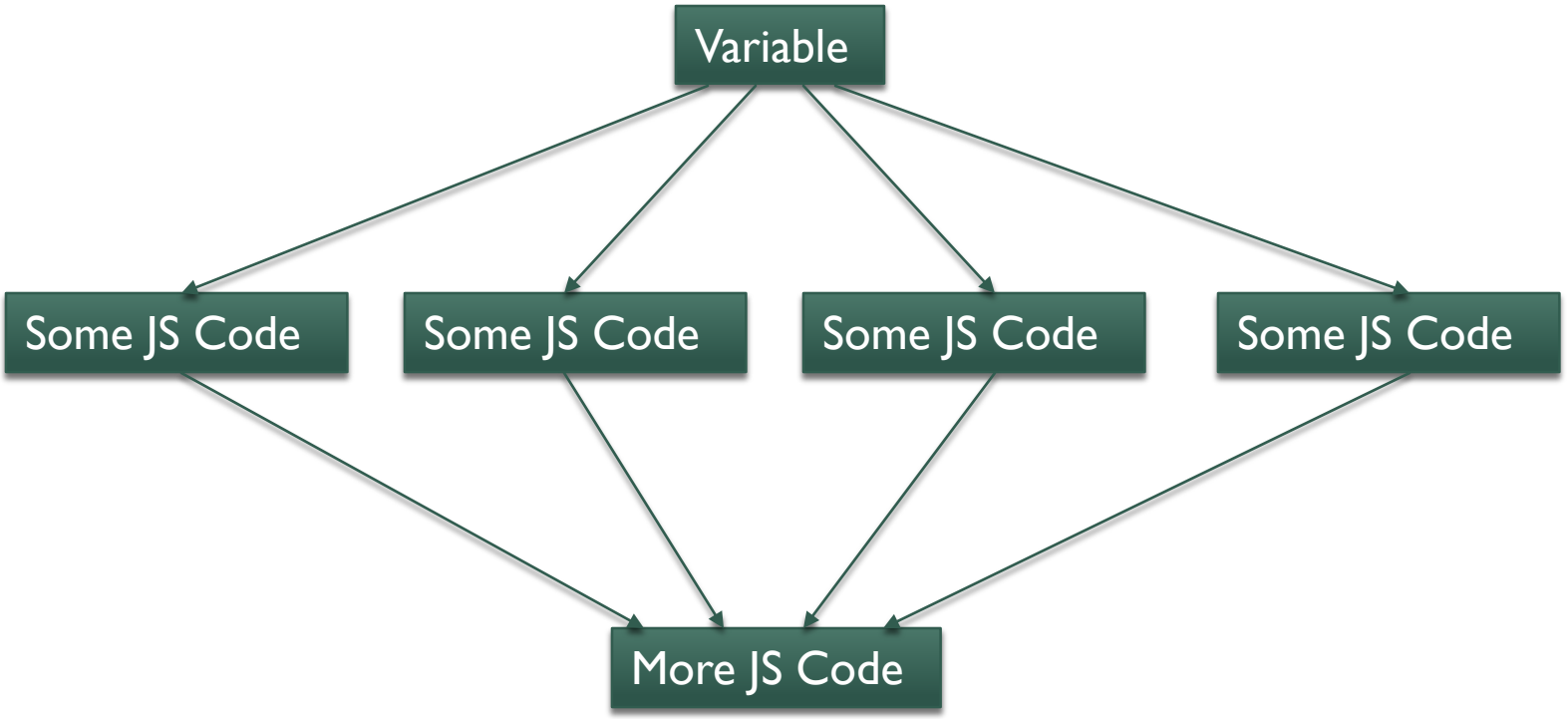
```
if (x=="male")
   {
    alert("Hello, sir!");
    alert("How old are you?");
}
else
   {
    alert("Hello, madam!");
    alert("You look really young!");
   }
```

SIMPLE BRANCHING WITH ELSE




Two roads diverged in a wood, and I—
I took the one less traveled by,
And that has made all the difference.
--Robert Frost

COMPLEX BRANCHING



COMPLEX BRANCHING (SWITCH)

- Syntax: see ➔
- variable is compared to each case
- Upon match, corresponding JS statements run
- If no match, default statements run

- https://www.w3schools.com/js/tryit.asp?filename=tryjs_switch

```
switch (variable) {
    case value1:
        //JS statements;
    break;
    case value2:
        //JS statements;
    break;
    case value3:
        //JS statements;
    break;
    …

    default:
        //JS statements;
}
```

TRY THIS…..

- Download CS13-InClass.htm, thyme.jpg, clover.jpg, shamrock.jpg, and maple.jpg.
- There is a blank image already placed for you.
- Modify the page so that when the user clicks on the image:
- A prompt asks the user for a leaf name: Thyme, Maple, Clover and Shamrock
- Change the image so that the leaf that the user wanted is shown!
- If the user enters anything else but the 4 choices, pop an alert saying that the input is incorrect.
- Write this using Conditional statements
- Update low.htm. Commit/push to GitHub

GRADED HOMEWORK #3

- You are given a page with a blank image.
- You are also given 4 images of animals - German shepherd, penguin, snow leopard and lynx.
- There are 4 buttons – one for each animal. The user may click on any of the 4 buttons. You must write one function.
- Show the image based on the user's response. In addition, change the heading on the page of the animal-name, change the image border color to green (shepherd), black (penguin), red (lynx) and yellow (leopard). Change the color of the button to the same color as the border depending on the animal chosen.
- Write a function to enlarge the image by 75% when the user mouses-over it and return it to normal size when the user mouses-out of the image.