MIS3690 WEB TECHNOLOGIES

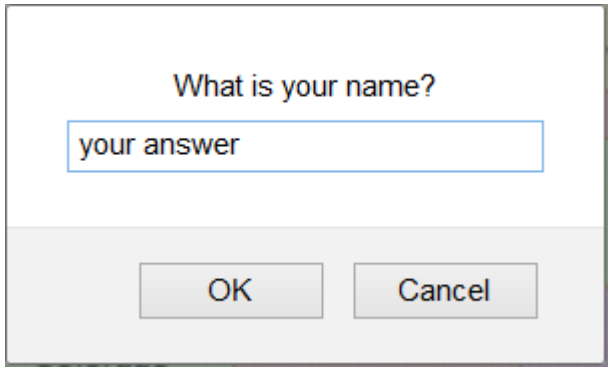
BABSON COLLEGE

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;
   }
```

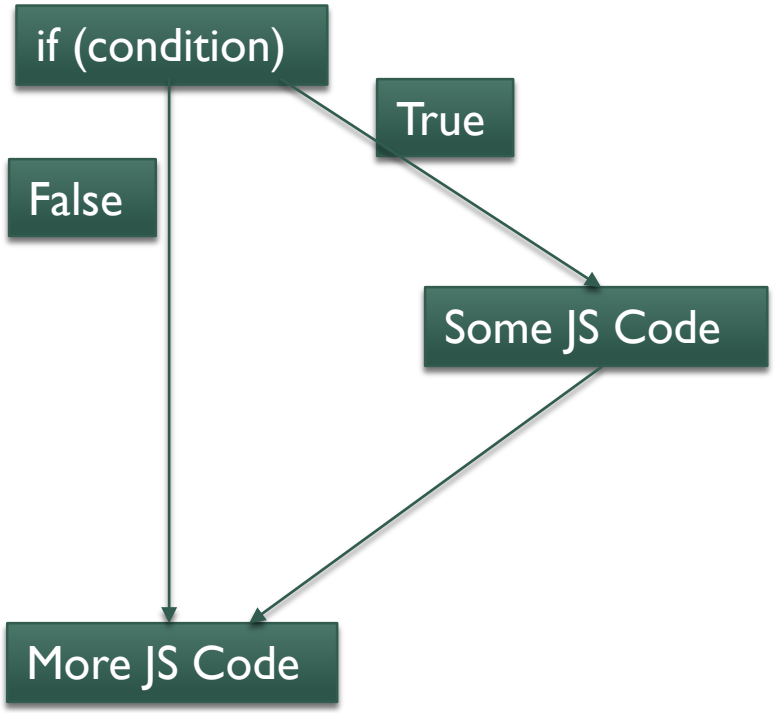
- Operation
  - The statements are run only if the condition is true. Otherwise, nothing happens
- Example:

```
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

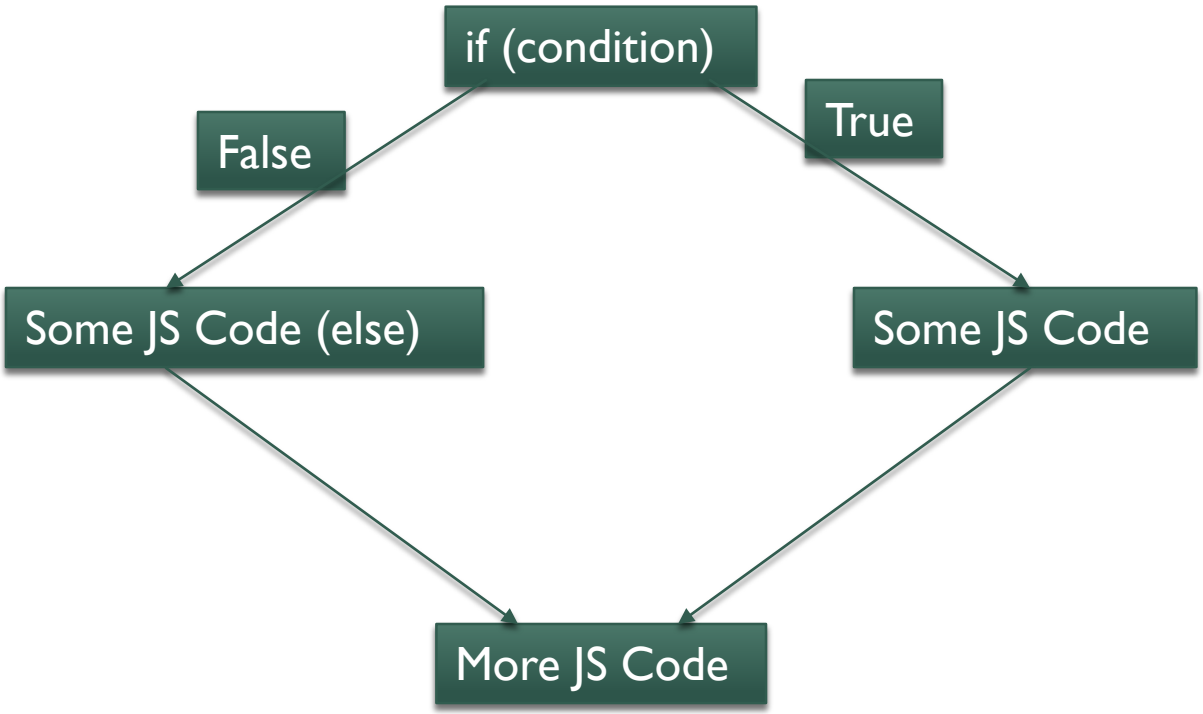
```
if (condition)
   {
      //JS statements
   }
   else
   {
      //different JS statements
   }
```

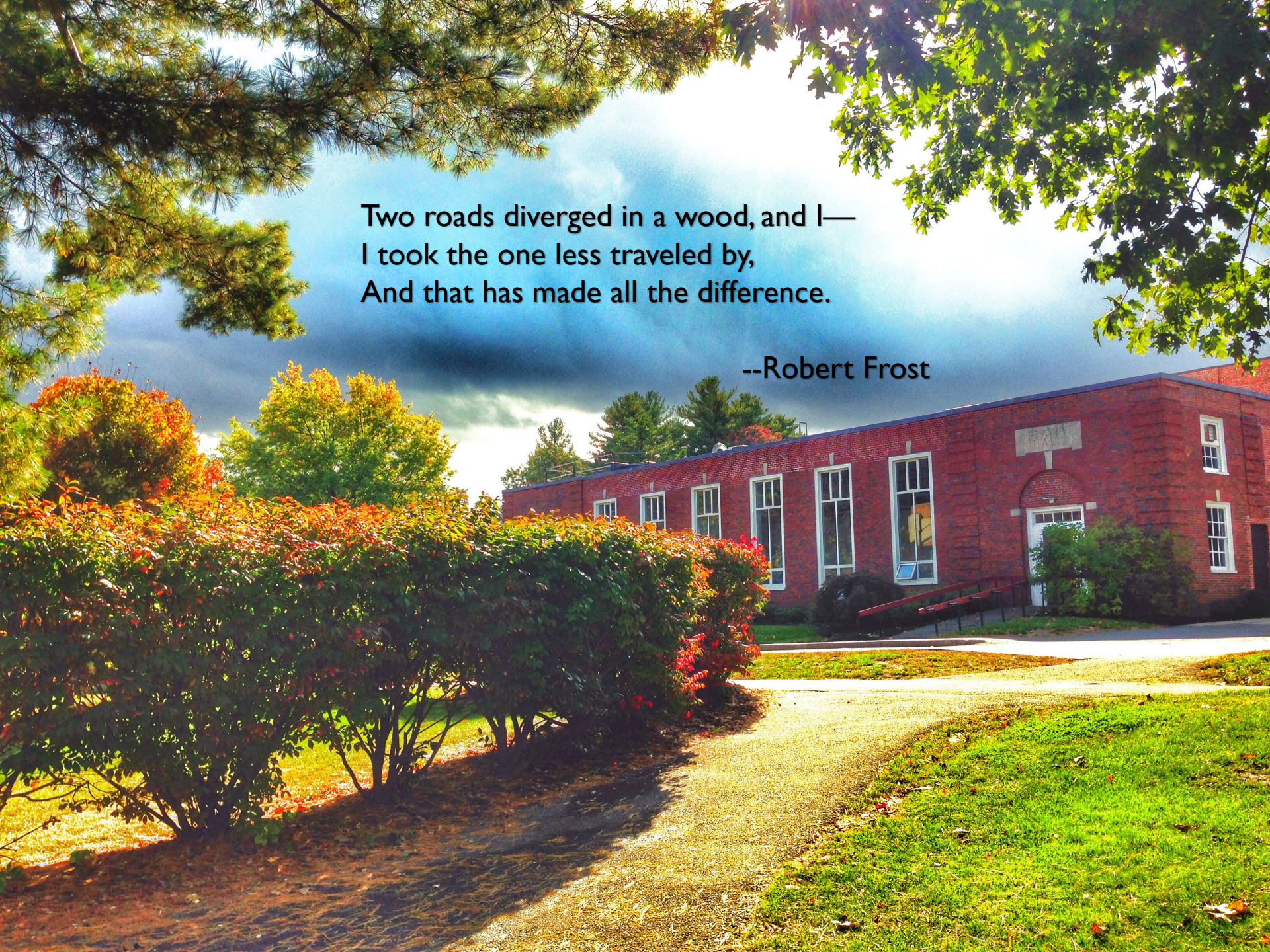
- If the condition is true, one set of statements is run
- If the condition is false, a different set is run

EXAMPLE

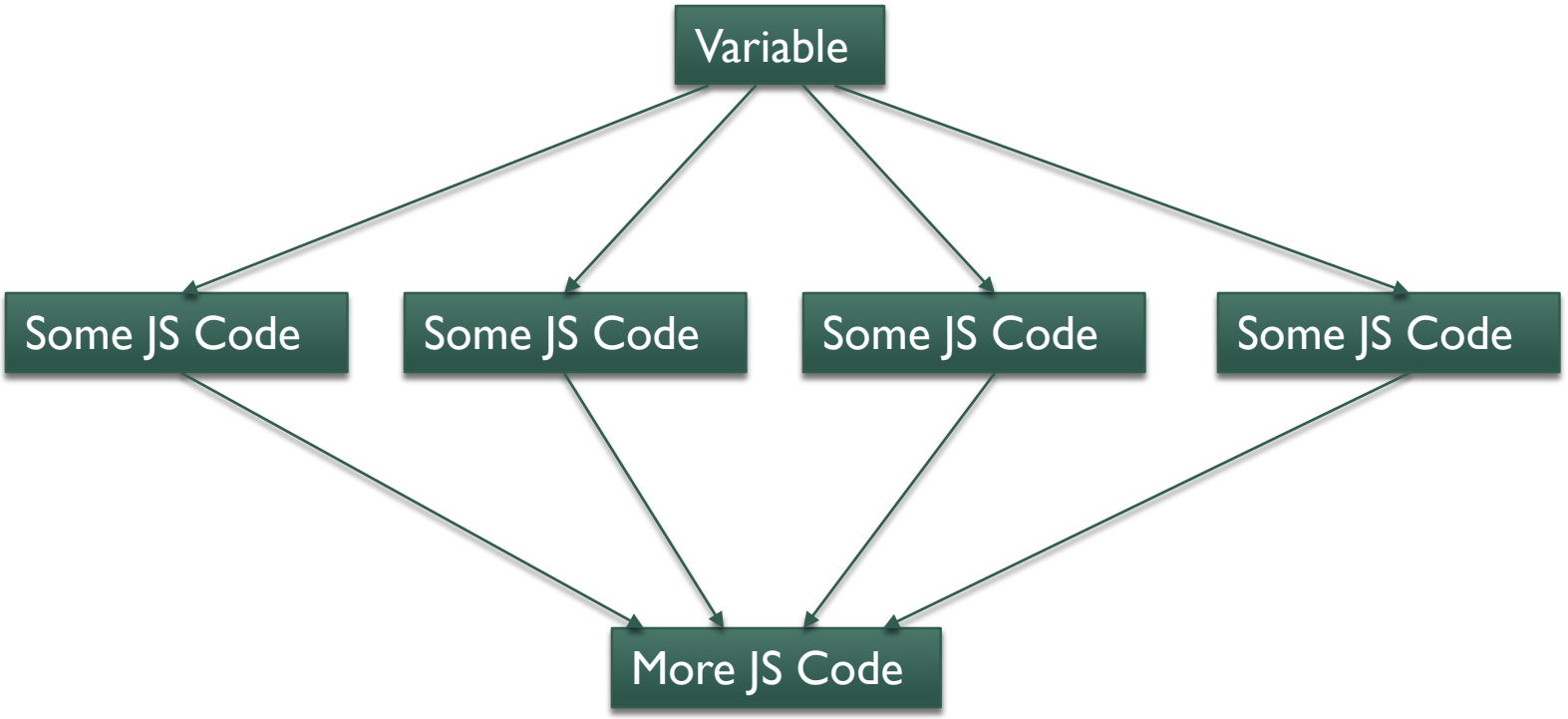
```
if (x=="male")
   {
    alert("Hello, sir!");
    alert("How old are you?");
}
else
   {
    alert("Hello, madam!");
    alert("You look really young!");
   }
```

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