COMS 465:

Computer-Mediated Communication

- Review
- Computer Networks
- Preview

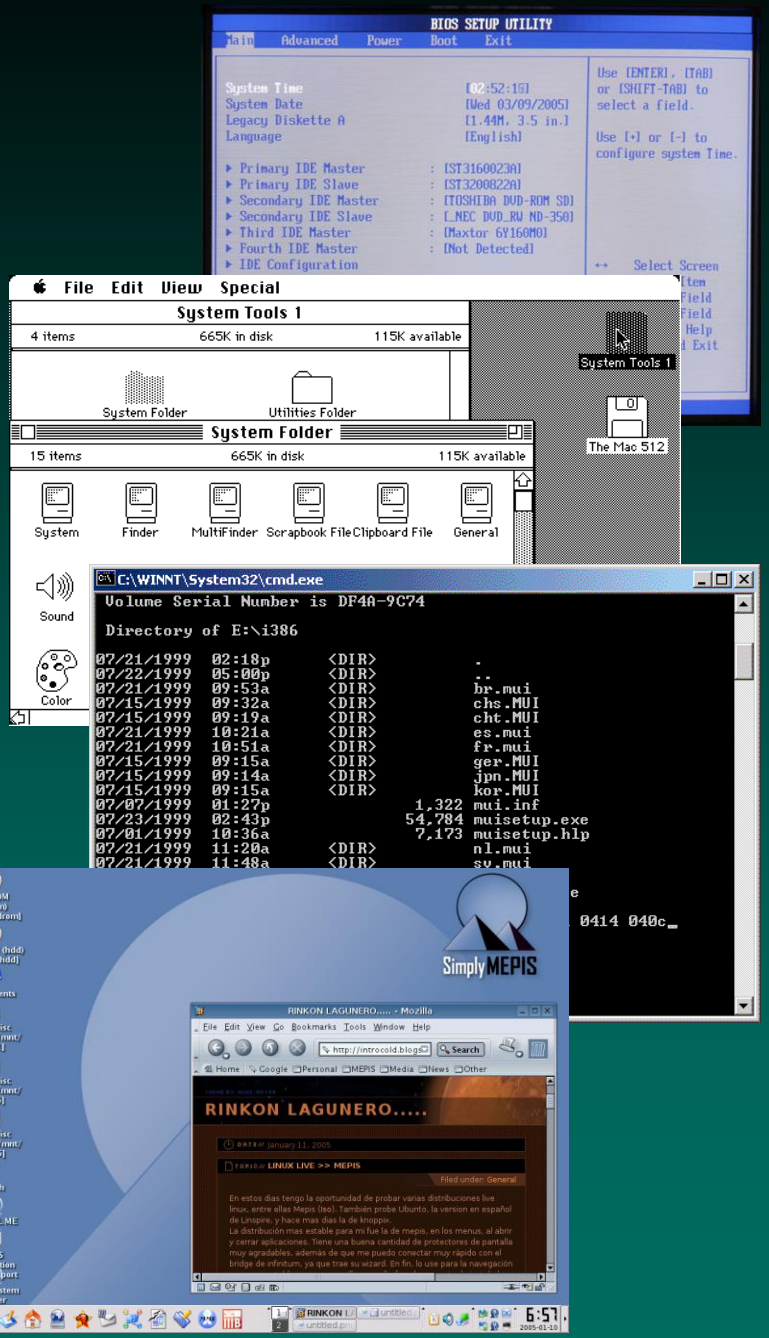
Review

- Software
  - Application Software
  - System Software
- Programming
  - Programming Languages
  - 5 Generations
  - Examples “Hello World”


```
c
c   Hello, world.
c
      Program Hello

      implicit none
      logical DONE

      DO while (.NOT. DONE)
        write(*,10)
      END DO
   10 format('Hello, world.')
      END
```

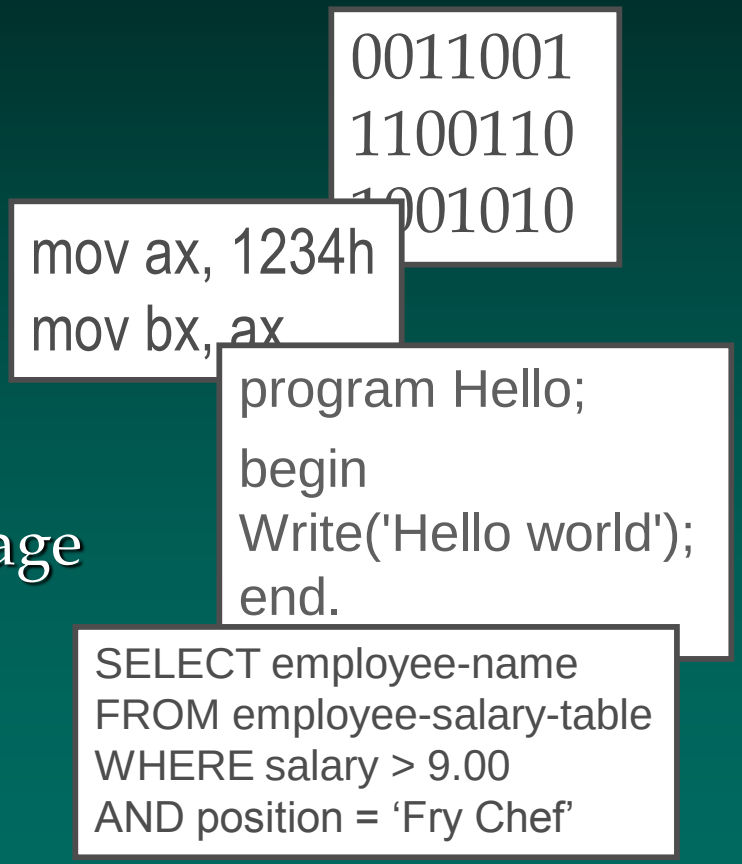
Review

- Software – Operating System
  1) Boot the Computer
     a) BIOS
     b) POST
     c) Load OS
     d) System Configuration
     e) System Utilities
     f) Authentication
  2) Manage Programs
  3) Manage Memory
  4) Deal with I/O Devices
  5) User Interface

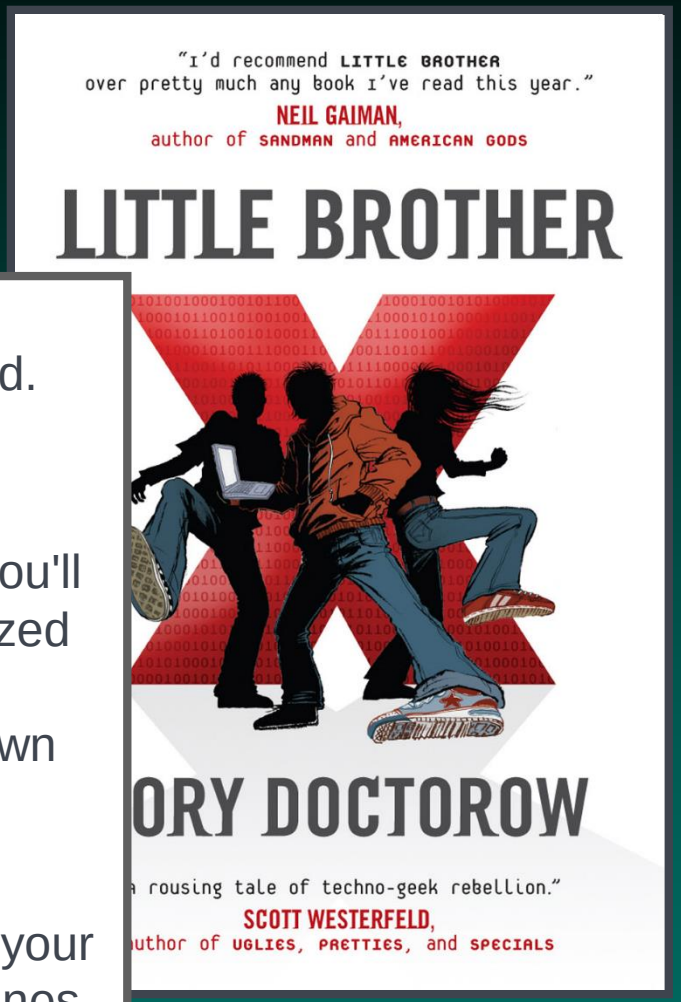


Review

- Programming
  - 5 Generations
    - Machine Language
    - Assembly Language
    - High-Level Language
    - Non-Procedural Language
    - Natural Language



Review



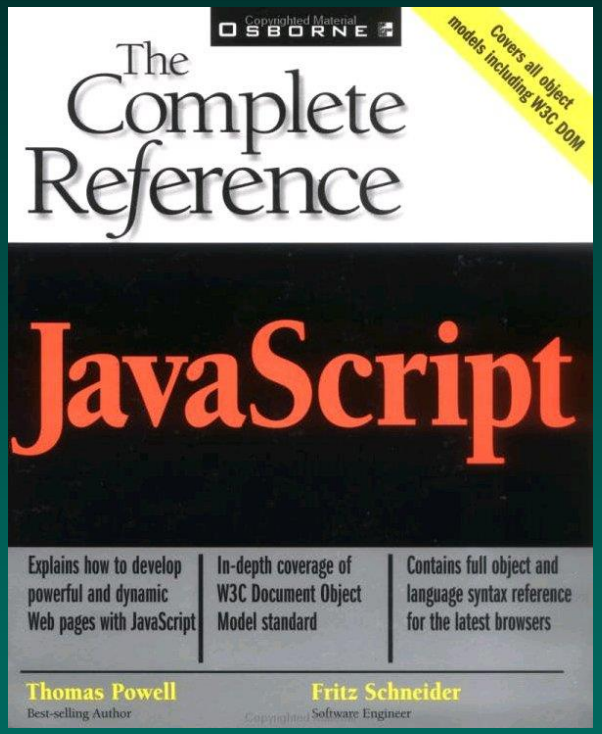
If you've never programmed a computer, you should. There's nothing like it in the whole world. When you program a computer, it does exactly what you tell it to do.

A computer is the most complicated machine you'll ever use. It's made of billions of microminiaturized transistors that can be configured to run any program you can imagine. But when you sit down at the keyboard and write a line of code, those transistors do what you tell them to.

Computers can control you or they can lighten your work. If you want to be in charge of your machines, you have to learn to write code. (p. 119)

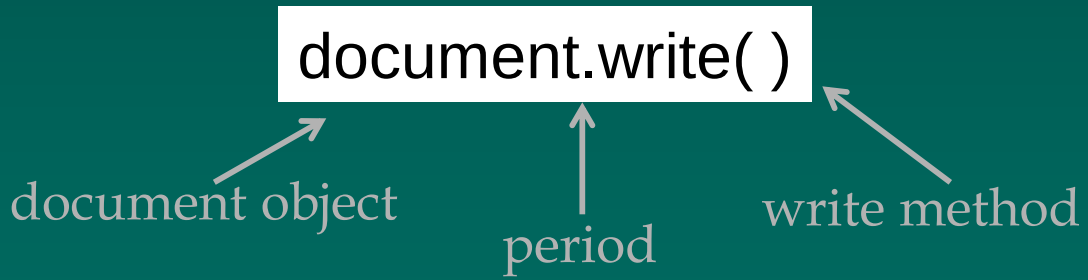
Review

- Writing Code
  - Hands-on experience with programming
  - JavaScript
    - Brief introduction
    - Exercises

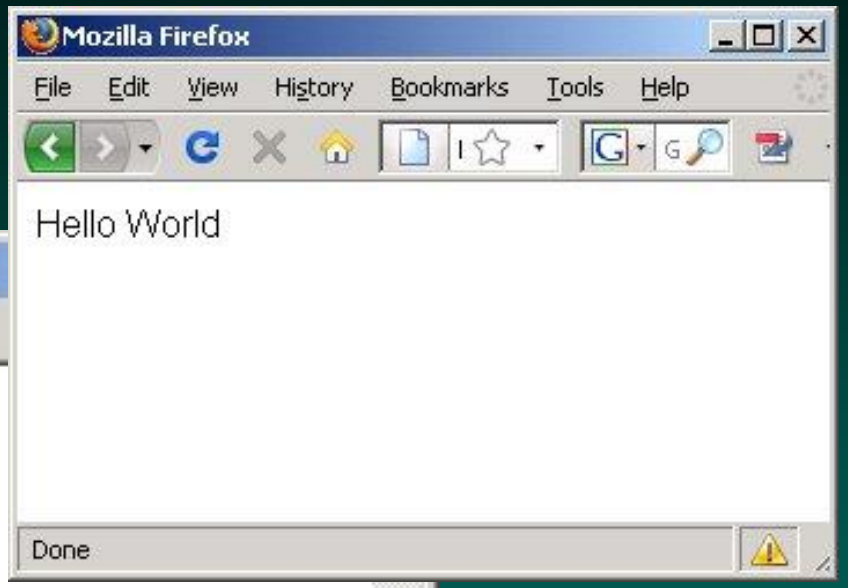


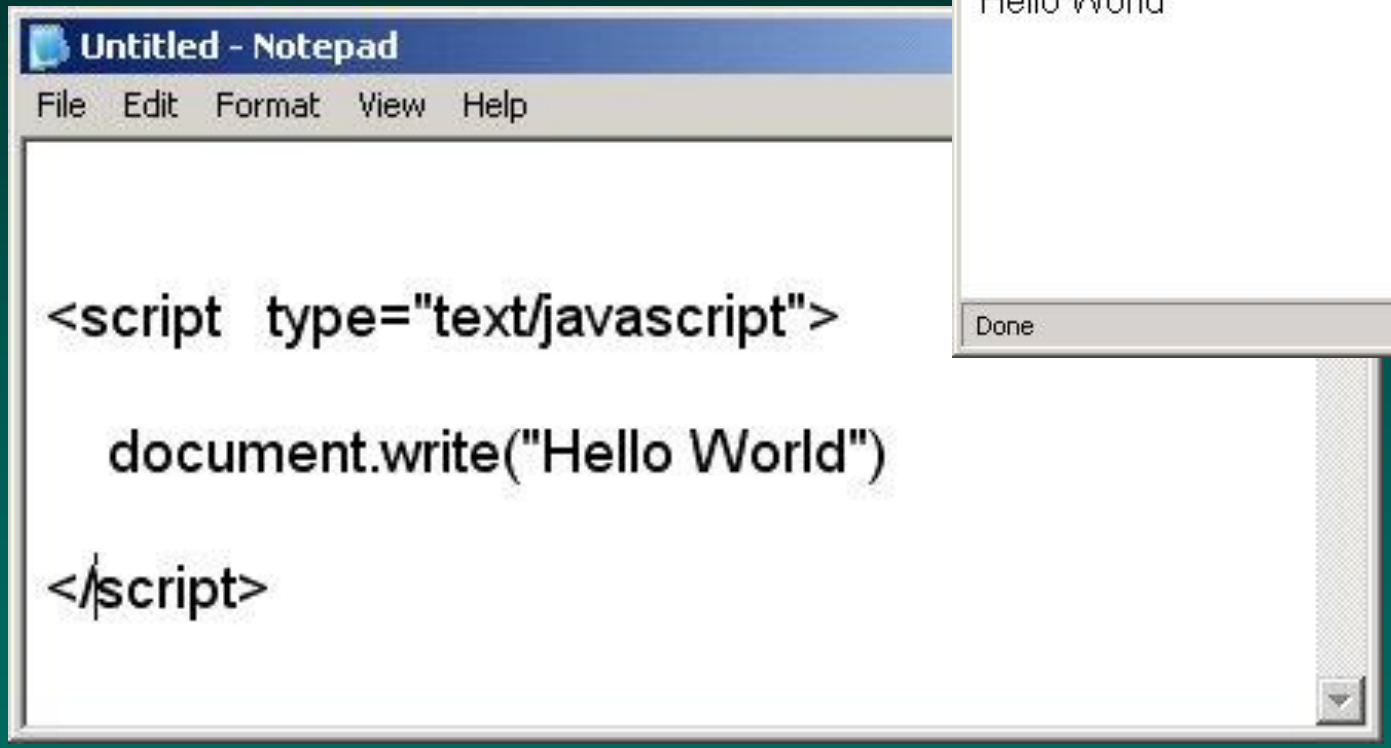
Review

- JavaScript
  - Object Oriented Programming – OOP
    - Objects and Methods are put together using "dot syntax" – the grammar of JavaScript
    - Example:



Review





program1

Review

program2 - Notepad

File Edit Format View Help

```
<script   type="text/javascript">

   prompt("What is your name?")

</script>

   Thank you for your information.
   It will be used recklessly.
```

Mozilla Firefox

File Edit View History Bookmarks Tools Help

file:///C

[JavaScript Application]

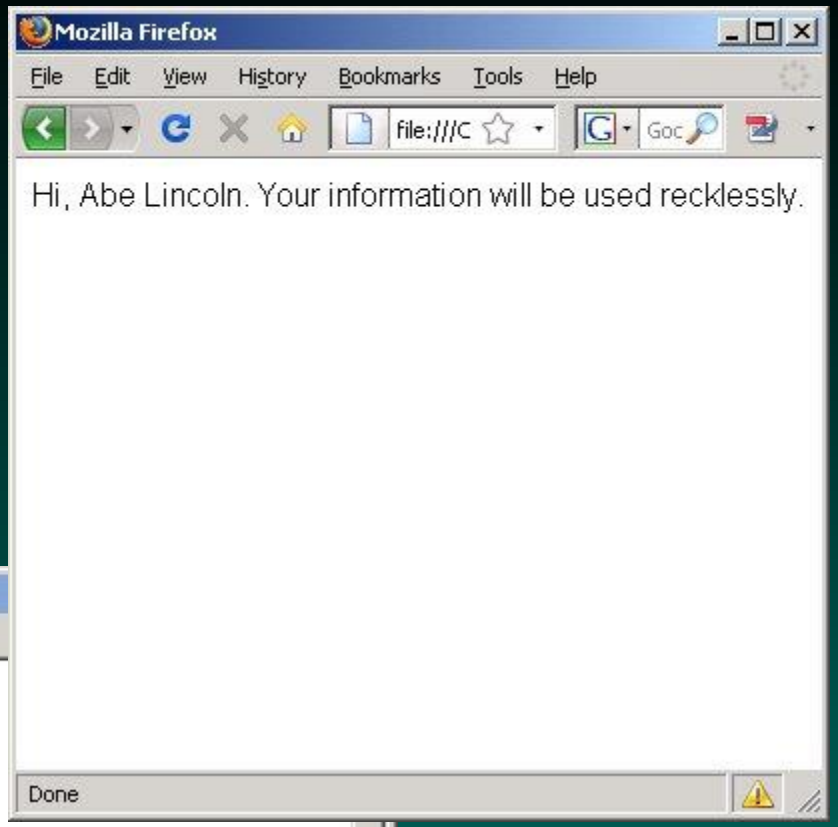
What is your name?

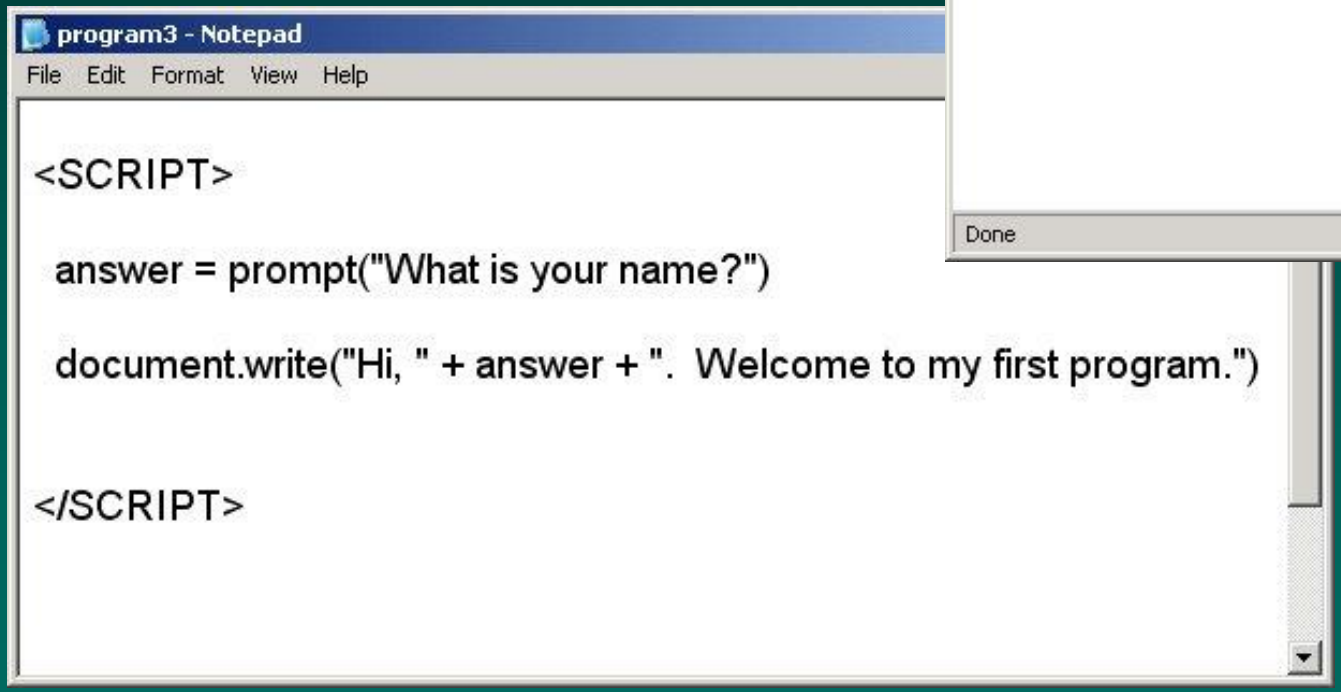
OK Cancel

Done

program2

Review

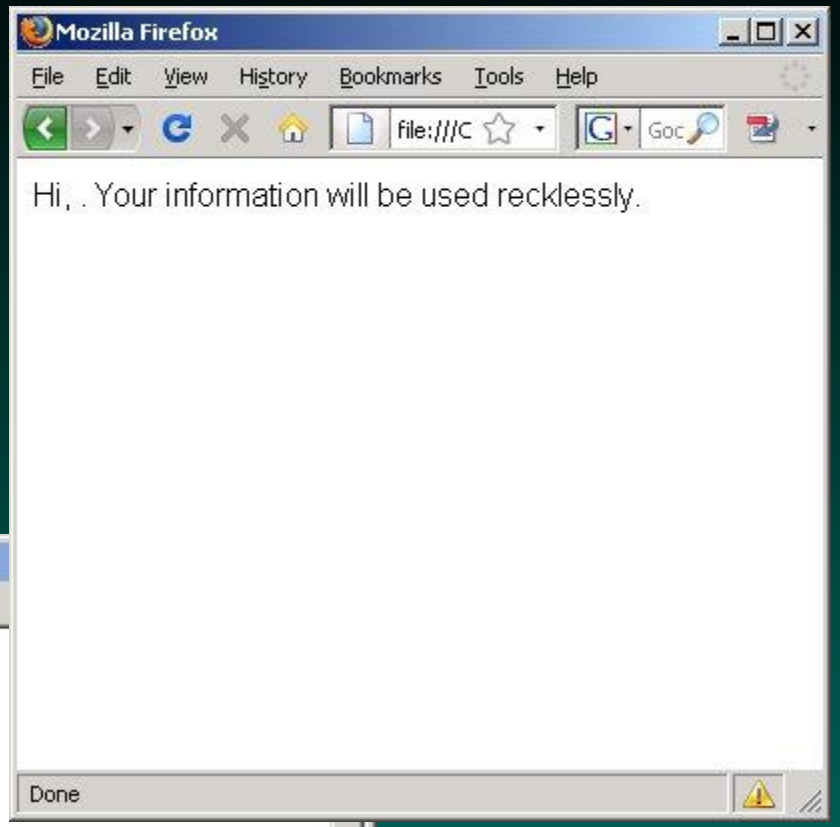




program3

Review

Potential Problem



program3 - Notepad

File Edit Format View Help

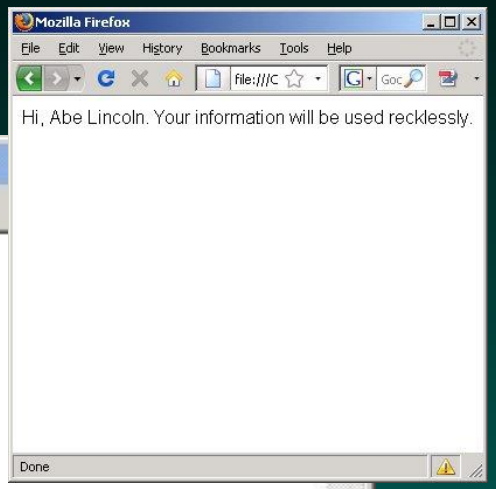
```
<SCRIPT>

 answer = prompt("What is your name?")

 document.write("Hi, " + answer + ".  Welcome to my first program.")


</SCRIPT>
```

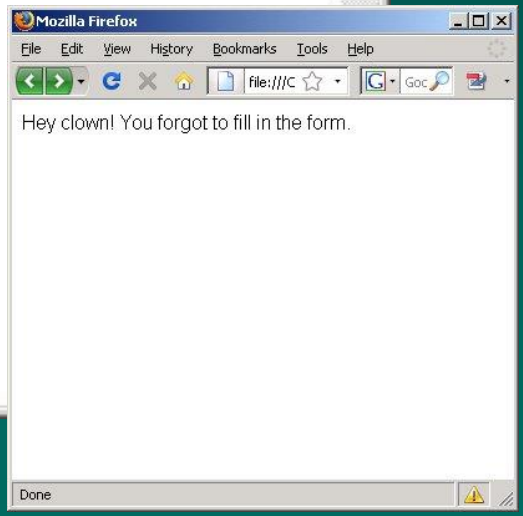
Fix = conditional statement

program4 - Notepad

File Edit Format View Help

```
<script   type="text/javascript">

   answer = prompt("What is your name?")

   if (answer) {
      document.write("Hi, "  +  answer  +  ".  Your information will be used recklessly.")
      }

  else {
      document.write("Hi, "  +  answer  +  ".  Your information will be used recklessly.")
      }

</script>
```





Create a variable named answer. Set the value of this variable to the response provided by the user in the dialogue box. Create the dialogue box by using the prompt method.

program4 - Notepad

File Edit Format View Help

```
<script   type="text/javascript">

  answer = prompt("What is your name?")

   if (answer) {
     document.write("Hi, "  +  answer  +  ".  Your information will be used recklessly.")
     }

  else {
     document.write("Hey clown!  You forgot to fill in the form.")
    }

</script>
```

Include a conditional statement.
If there is a value provided for the variable answer (e.g. the user has entered a name), then use the write method of the document object to display a text string that includes the user name.

program4 - Notepad

File Edit Format View Help

```
<script  type="text/jav

  answer = prompt("What is your name?")

  if (answer) {
    document.write("Hi, " + answer + ". Your information will be used recklessly.")
    }

  else {
    document.write("Hey clown!  You forgot to fill in the form.")
    }

</script>
```

program4 - Notepad

File Edit Format View Help

```
<script   type="text/javascript">

   answer = p

   if (answer)
     documer
     }

 else {
    document.write("Hey clown!  You forgot to fill in the form.")
   }

</script>
```

If answer does not have a value (e.g. the user has **not** entered a name), then use the write method of the document object to display an error message.

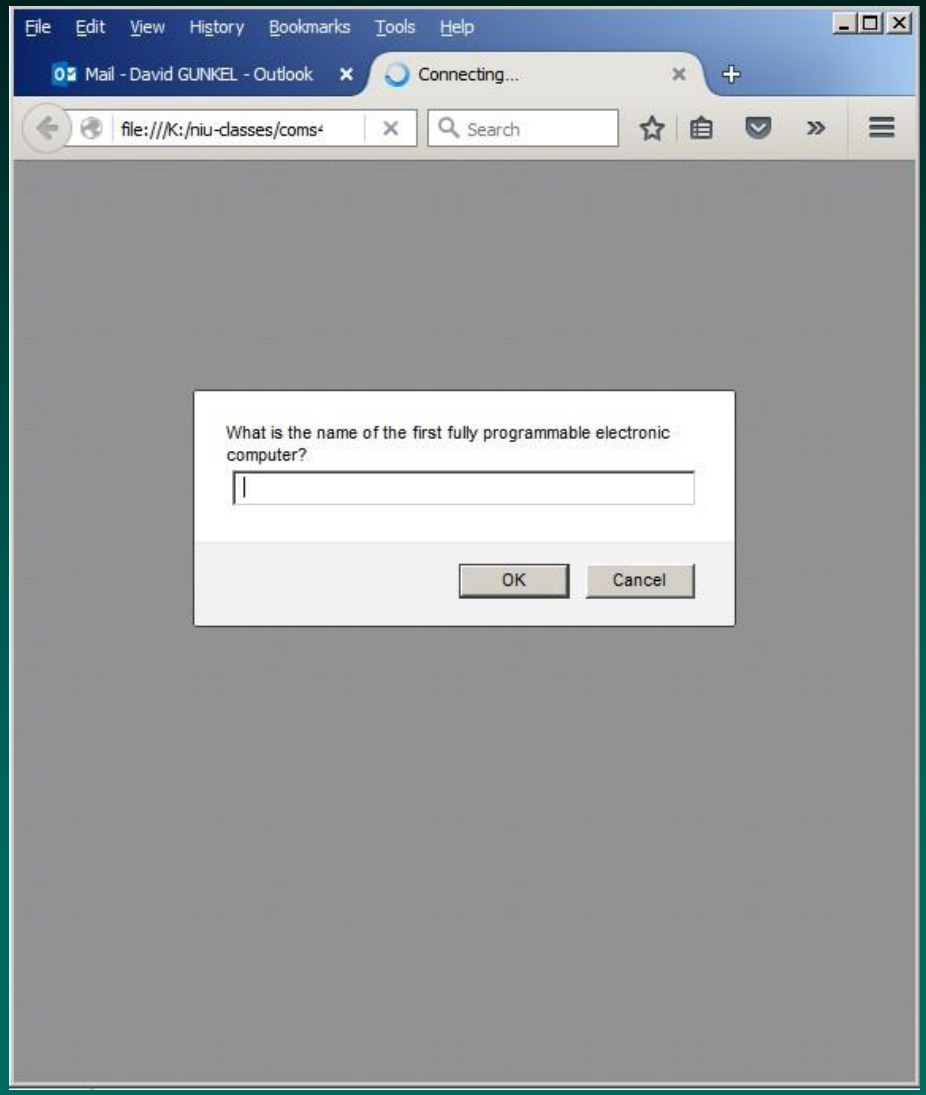
Save as program4.html

program4 - Notepad

File Edit Format View Help

```
<script   type="text/javascript">

   answer = prompt("What is your name?")

   if (answer) {
      document.write("Hi, "  +  answer  +  ".  Your information will be used recklessly.")
      }

  else {
      document.write("Hey clown!  You forgot to fill in the form.")
     }

</script>
```

Trivia Quiz


File Edit View History Bookmarks Tools Help
Mail - David GUNKEL - Outlook
Connecting...
file:///K:/niu-classes/coms
Search
What is the name of the first fully programmable electronic computer?
OK
Cancel

quiz_example2.html | quiz_example_basic.html

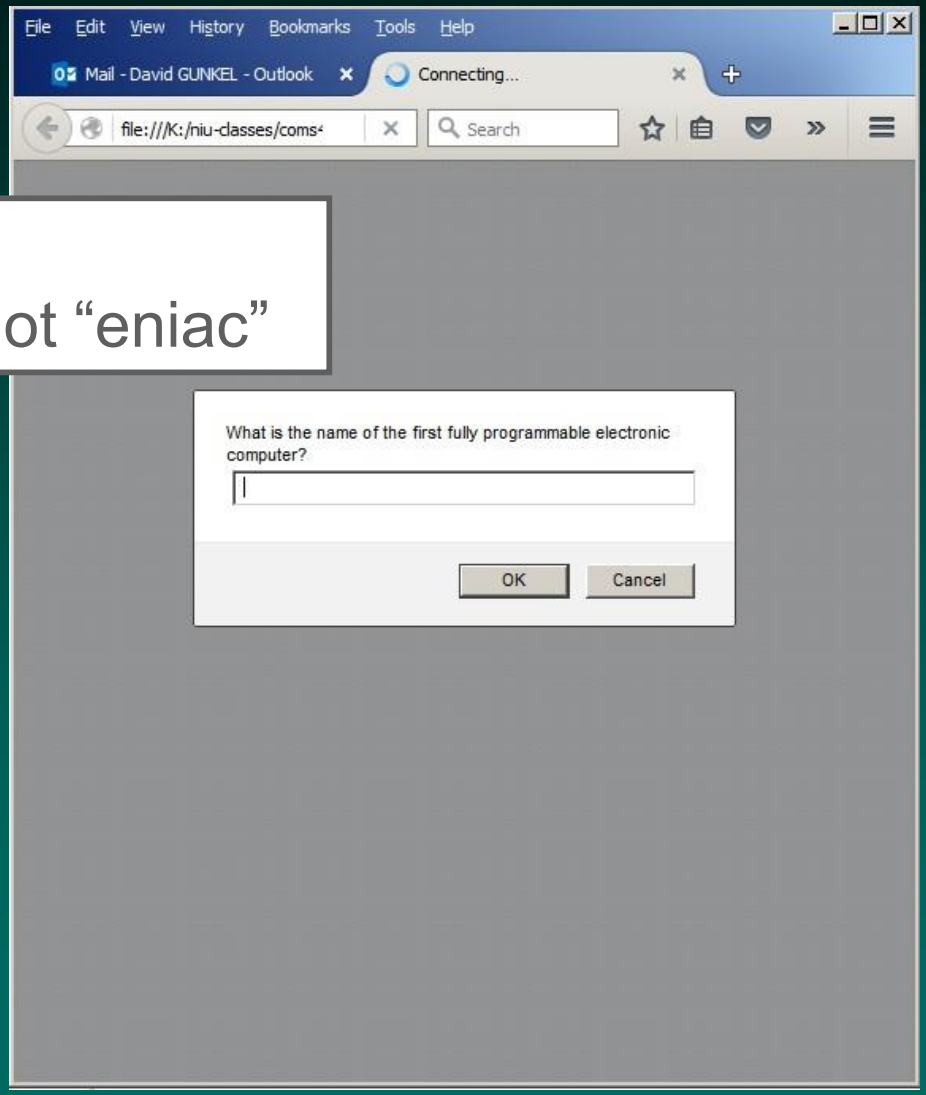
program5.html

```
1  <script type="text/javascript">
2
3      var score = 0;
4      var answer1 = "ENIAC";
5      var question1 = prompt("What is the name of the
       first fully programmable electronic computer?");
6      if (answer1 == question1)
7        {
8          score++;
9        }
10 document.write("Your score is " + score + ":");
11   if (score > 0)
12      {
13        document.write("<br>Good job...you win!");
14      }
15   else
16      {
17        document.write("<br>You are an idiot!");
18      }
19   </script>
20
```

length : 490 lines | Ln : 1 Col : 1 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS

Potential Problem

"ENIAC" works but not "eniac"



quiz_example2.html | quiz_example_basic.html

```
1  <script type="text/javascript">
2
3      var score = 0;
4      var answer1 = "ENIAC";
5      var question1 = prompt("What is the name of the
       first fully programmable electronic computer?");
6      if (answer1 == question1)
7        {
8          score++;
9        }
10 document.write("Your score is " + score + ":");
11   if (score > 0)
12      {
13        document.write(
14      }
15   else
16      {
17        document.write("<br>You are an idiot!");
18      }
19   </script>
20
```

How would you modify this code to work with both ENIAC and eniac?

length : 490 lines | Ln : 1 Col : 1 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS

quiz_example2.html | quiz_example_basic.html

```
1   <script type="text/javascript">
2
3       var score = 0;
4       var answer1 = "ENIAC";
5       var question1 = prompt("What is the name of the
        first fully programmable electronic computer?");
6       if (answer1 == question1)
7           {
8             sc
9           }
10  document.w
11    if (sco
12        {
13          do
14        }
15    else
16        {
17          document.write("<br>You are an idiot!");
18        }
19    </script>
20
```

Change the "test" line:

Test whether the value assigned to the variable question1 matches either ENIAC or eniac

length : 490 lines | Ln : 1 Col : 1 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS

quiz_example_basic_modified.html

```
1  <script type="text/javascript">
2
3      var score = 0;
4      var answer1a = "ENIAC";
5      var answer1b = "eniac";
6      var question1 = prompt("What
       programmable electronic comput
7      if (answer1a == question1 || answer1b == question1)
8        {
9          score++;
10       }
11 document.write("Your score is " + score + ":");
12   if (score > 0)
13      {
14        document.write("<br>Good job...you win!");
15      }
16   else
17      {
18        document.write("<br>You are an idiot!");
19      }
20   </script>
21
22
23
```

Declare two variables
answer1a = “ENIAC”;
answer1b = “eniac”;

length : 544 lines : 34 | Ln : 1 Col : 1 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS

quiz_example_basic_modified.html

```
1  <script type="text/javascript">
2
3      var score = 0;
4      var answer1a = "ENIAC";
5      var answer1b = "eniac";
6      var question1 = prompt("What is the name of the first fully
       programmable electronic computer?");
7      if (answer1a == question1 || answer1b == question1)
8        {
9          score+
10       }
11 document.write
12   if (score >
13       {
14         documen
15       }
16   else
17       {
18         document.write("<br>You are an idiot!");
19       }
20   </script>
21
22
23
```

Modify the conditional statement by checking two conditions separated by the logical operator OR, which is written: || (shift of the backslash key)

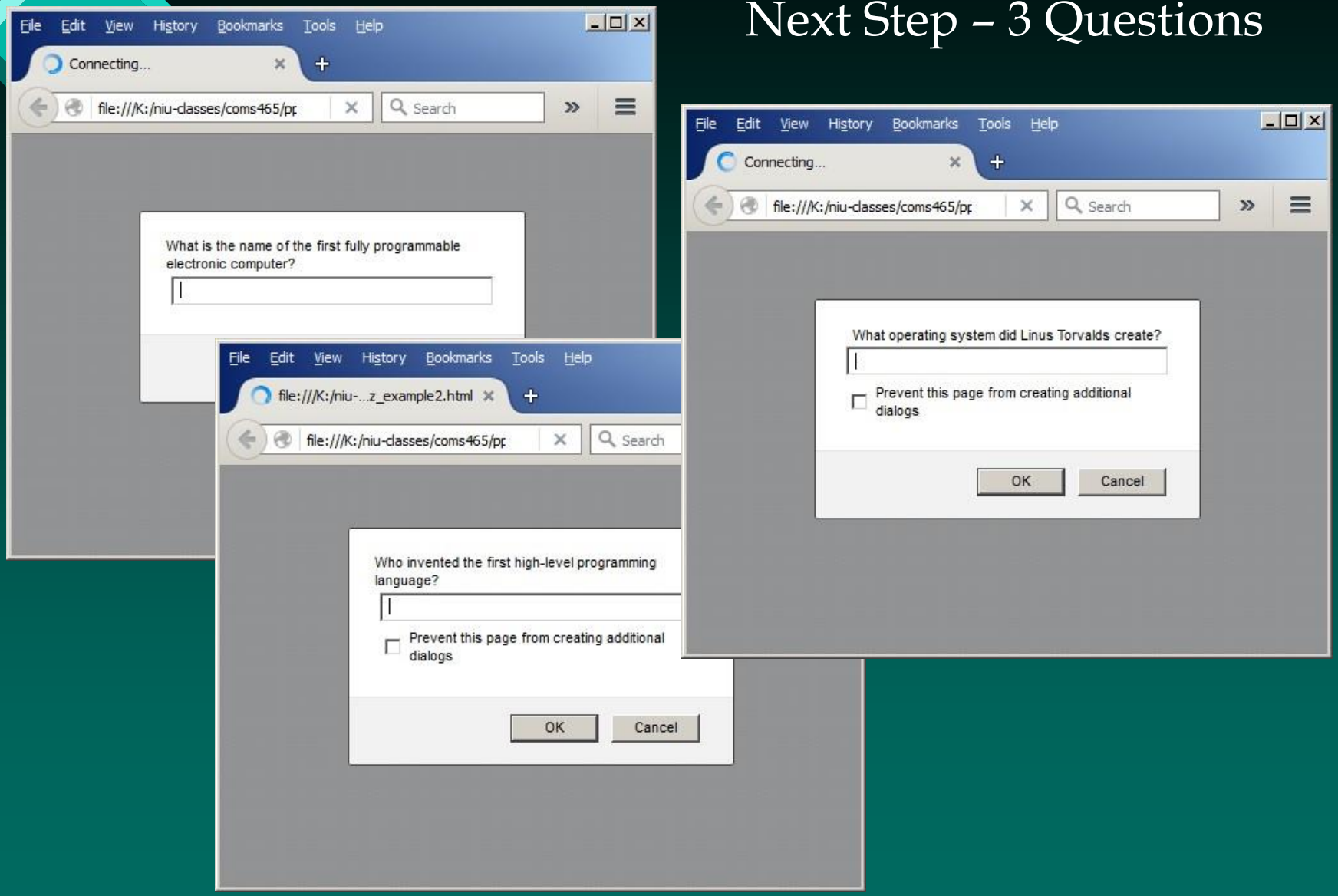
length : 544 lines : 34 | Ln : 1 Col : 1 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS

quiz_example_basic_modified.html

```
1  <script type="text/javascript">
2
3      var score = 0;
4      var answer1a = "ENIAC";
5      var answer1b = "eniac";
6      var question1 = prompt("What is the name of the first fully
       programmable electronic computer?");
7      if (answer1a == question1 || answer1b == question1)
8        {
9          score++;
10       }
11 document.write("Your score is " + score + ":");
12   if (score > 0)
13     {
14       document.write("<br>Good job...you win!");
15     }
16   else
17     {
18       document.write("<br>You are an idiot!");
19     }
20   </script>
21
22
23
```

H length : 544 lines : 34 | Ln : 1 Col : 1 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS

Next Step – 3 Questions



quiz_example2.html

```
<script type="text/javascript">

    var score = 0;
    var answer1 = "ENIAC";
    var question1 = prompt("What is the name of the first fully programmable electronic computer?");
    if (answer1 == question1)
      {
        score++;
      }
    var answer2 = "Grace Hopper";
    var question2 = prompt("Who invented the first high-level programming language?");
    if (answer2 == question2)
      {
        score++;
      }
    var answer3 = "Linux";
    var question3 = prompt("What operating system did Linus Torvalds create?");
    if (answer3 == question3)
      {
        score++;
      }
document.write("Your score is " + score + ":");
 if (score > 2)
    {
      document.write("<br>Good job...you win!");
    }
 else if (score > 1)
    {
      document.write("<br>Not bad...but you could do better.");
    }
 else
    {
      document.write("<br>You are an idiot!");
    }

 </script>

```

Hyper Text Markup Language file | length : 941 lines : 50 | Ln : 37 Col : 1 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS

Review

Power User

Technology = Magic
The tool is in control

Critical User

Technology = Tool
We control our tools

Preview

- Computer Networks
  - LaBerta, ch. 8 - Wired and Wireless Communications
  - LaBerta, ch. 7 - Networks: Communicating and Sharing Resources
  - LaBerta, Spotlight 5: Cloud Computing