

major option

During the first half hour students wrote this program. I asked them to write it once with a compound IF and once with three IFs.

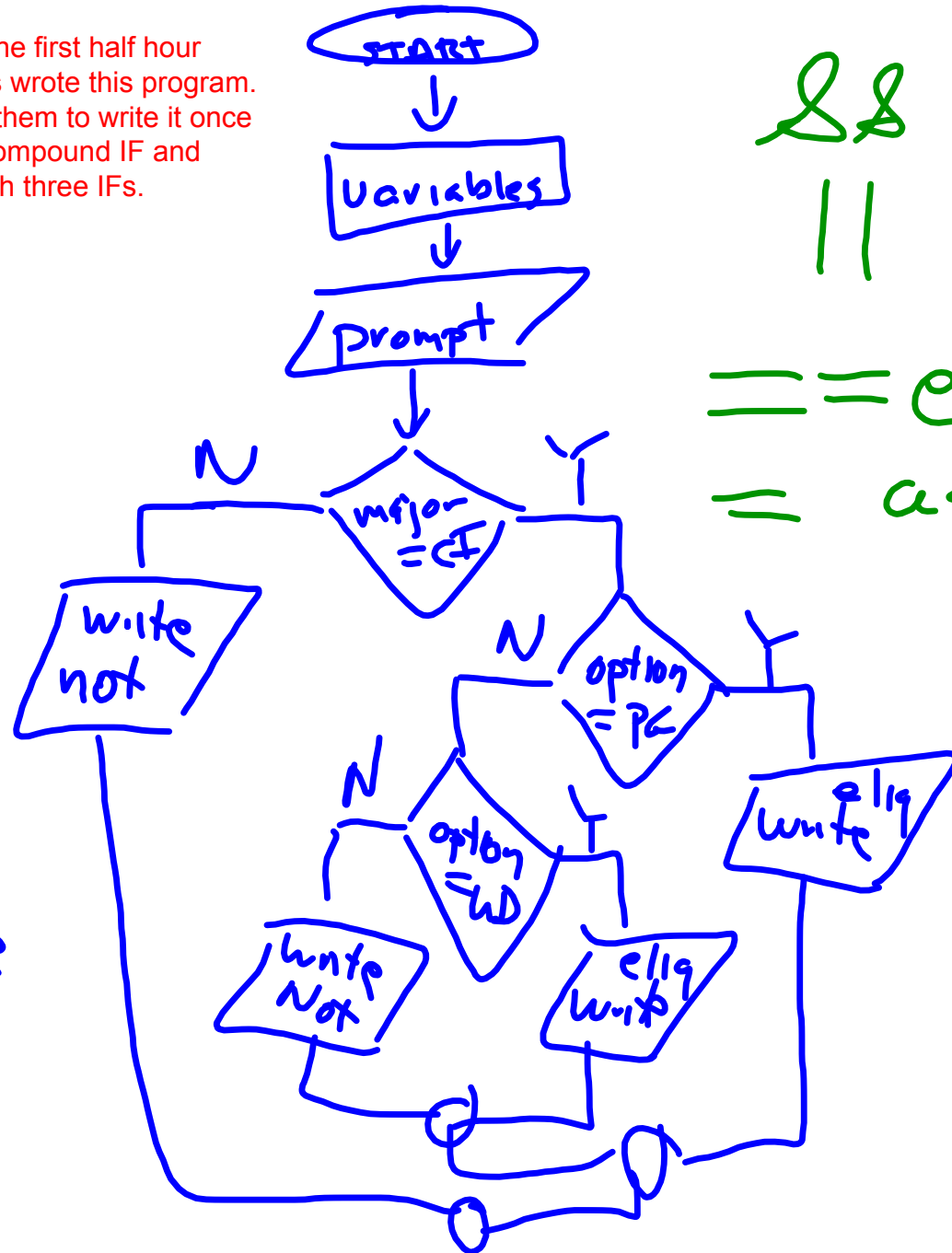
&& AND

|| OR

== equal

= assign

major = CI
and
the option
is either
PG or WD
testing eligible
not eligible



File Edit View History Bookmarks Tools Help SMART Ink

Addition × +

file:///F:/major3.html Search

This shows a situation where major must be CI and either option must be PG or WD to meet the criteria.

Meets criteria
All done!

```
Untitled - Notepad SMART Ink
File Edit Format View Help
<!DOCTYPE html>
<html lang="en">
<head>
<title>Addition</title>
<meta charset="utf-8">
</head>
<body>
<h1>This shows a situation where major must be CI and either option must be PG or WD to
<script type="text/javascript">
var major = "";
var option = "";
major = prompt("Enter the major","");
option = prompt("Enter the option of PG, WD, NT, CS, IT","");
if (major == "CI" && (option == "PG" || option == "WD"))
{
    document.write("Meets criteria");
}
else
{
    document.write("Does not meet criteria");
}
document.write("<br>All done!");
</script>
```

Windows Taskbar: 12:59 PM 10/17/2017

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Addition × +

file:///F:/major3.html Search

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This shows a situation where major must be CI and either option must be PG or WD to meet criteria.

Meets criteria
All done!

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Addition</title>
<meta charset="utf-8">
</head>
<body>
<h1>This shows a situation where major must be CI and either option must be PG or WD to meet criteria.</h1>
<script type="text/javascript">
var major = "";
var option = "";
major = prompt("Enter the major", "");
option = prompt("Enter the option of PG, WD, NT, CS, IT", "");
if (major == "CI" && option == "PG" || option == "WD")
{
    document.write("Meets criteria");
}
else
{
    document.write("Does not meet criteria");
}
document.write("<br>All done!");
</script>
</body>
</html>
```

If you remove the parenthesis you would have ANDs resolved before ORs. That means major of CI and option of PG would be grouped and option of WD stands alone.

together

alone

Windows Taskbar: 1:02 PM 10/17/2017

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Additional

file:///F:/major3.1

This shows PG or WD

Meets criteria
All done!

Untitled - Notepad

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```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Addition</title>
<meta charset="utf-8">
</head>
<body>
<h1>This shows a situation where major must be CI and either option must be PG or WD
<script type="text/javascript">
var major = "";
var option = "";
major = prompt("Enter the major", "");
option = prompt("Enter the option of PG, WD, NT, CS, IT", "");
if (major == "CI" && (option == "PG" || option == "WD"))
{
document.write("Meets criteria");
}
else
{
document.write("Does not meet criteria");
}
document.write("<br>All done!");
</script>
</body>
</html>
```

CI PG

1:05 PM
10/17/2017

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file:///F:/majortest.html

view-source:file:///F:/majortest.html

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <title>Addition</title>
5 <meta charset="utf-8">
6 </head>
7 <body>
8 <h1>This shows a situation where major must be CI and either option must be PG or WD to meet the criteria.</h1>
9 <script type="text/javascript">
10 var major = "";
11 var option = "";
12 major = prompt("Enter the major","");
13 option = prompt("Enter the option of PG, WD, NT, CS, IT","");
14 if (major == "CI")
15 {
16     if (option == "PG")
17     {
18         document.write("Meets criteria");
19     }
20     else
21     {
22         if (option == "WD")
23         {
24             document.write("Meets criteria");
25         }
26         else
27         {
28             document.write("Does not meet criteria");
29         }
30     }
31 }
32 else
33 {
34     document.write("Does not meet criteria");
35 }
36 document.write("<br>All done!");
37 </script>
38 </body>
39 </html>
```

Windows taskbar: 1:09 PM 10/17/2017

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Programs for CIS120/CIS17

www.pgrocer.net/Cis17/cis17programs.html

NextVB.zip - two programs in this zip
VBF11CIS120.zip - multiple programs
projWriteText.zip - creating a file
readProj.zip - reading a file

JavaScript

hello.html
multiply.html
multiplyans.html
addnum.html
addnumcont.html
mathans.html
ifwithif.html
MAorRI.html
prob2.html
whileloop.html
doloop.html
ifwithloop.html
finaltotals.html
Loop comparison:
Math facts while loop
Math facts nested while loop
Math facts do...while loop
Math facts nested do...while loop
Math facts for loop
Math facts nested for loop
Arrays:
deptArray.html
thedata.html
thedata12.html
thedata12another.html
thedata11.html
souparrayjs1.html Search using JavaScript

Programs must have the ability to handle:
Sequence
Selection / Decision
repetition - loops

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pgrocer.net/Cis17/javascript/whi X +

www.pgrocer.net/Cis17/javascript/whileloop.html Search

This is number 1
This is number 2
This is number 3
This is number 4
This is number 5

This is the end!!!

Set - test - Change

```
<html>
<script type="text/javascript">
var data_input = 0;
data_input=prompt("How many times should I write the line?",0);
var ct=1;
while (ct <= data_input)
{
document.write("This is number " + ct + "<br>");
ct = ct + 1;
}
document.write("<br>" + "This is the end!!!")
</script>
</html>
```

5
control is ct
Loop
Set control
test control
Change control

ct data_input
1 0
2 5
3
4
5

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pgrocer.net/Cis17/javascript/whi X +

www.pgrocer.net/Cis17/javascript/whileloop.html

This is number 1
 This is number 2
 This is number 3
 This is number 4
 This is number 5

This is the end!!!

Set-test
 Change

```

<html>
<script type="text/javascript">
var data_input = 0;
data_input=prompt("How many times should I write the line?",0);
var ct=1;
while (ct <= data_input)
{
document.write("This is number " + ct + "<br>");
ct = ct + 1;
}
document.write("<br>" + "This is the end!!!")
</script>
</html>

```

5
 Control is ct
 Loop
 Set control
 test control
 Change control

possible to never enter loop
 If I entered 0 for data_input

ct data_input
 x 0/5
 x 1/5
 x 2/5
 x 3/5
 x 4/5
 x 5/5

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File Edit View History Bookmarks Tools Help SMART Ink

Untitled - Notepad File Edit Format View Help

```
<html>
<script type="text/javascript">
var data_input = 0;
data_input=prompt("How many times should I write the line?",0);
var ct=1;
while (ct <= data_input)
{
document.write("This is number " + ct + "<br>");
ct = ct + 1;
}
document.write("<br>" + "This is the end!!!")
</script>
</html>
```

This is number 1
This is number 2
This is number 3
This is number 4
This is number 5
This is the end!!!

```
graph TD
    Start([start]) --> Var[var]
    Var --> Prompt[/prompt/]
    Prompt --> Ct1[ct=1]
    Ct1 --> Decision{ct <= data_input}
    Decision -- Y --> Write[/Write/]
    Write --> CtPlus[ct=ct+1]
    CtPlus --> Decision
    Decision -- N --> End[/end/]
    End --> Stop([stop])
```

SMART Ink

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pgrocer.net/Cis17/jav

Untitled - Notepad

File Edit Format View Help

```
<html>
<script type="text/javascript">
var data_input = 0;
data_input=prompt("How many times should I write the line?",0);
var ct=1;
while (ct <= data_input)
{
document.write("This is number " + ct + "<br>");
ct = ct + 1;
}
document.write("<br>" + "This is the end!!!")
</script>
</html>
```

This is number 1
This is number 2
This is number 3
This is number 4
This is number 5
This is the end!!!

```
graph TD
    Start([start]) --> Var[var]
    Var --> Prompt[/prompt/]
    Prompt --> Ct1[ct=1]
    Ct1 --> Decision{ct <= data_input}
    Decision -- Y --> Write[/Write/]
    Write --> Inc[ct = ct + 1]
    Inc --> Decision
    Decision -- N --> End[/end/]
    End --> Stop([stop])
```

SMART Ink

SMART Ink

Windows taskbar: 1:26 PM 10/17/2017

File Edit View History Bookmarks Tools Help SMART Ink

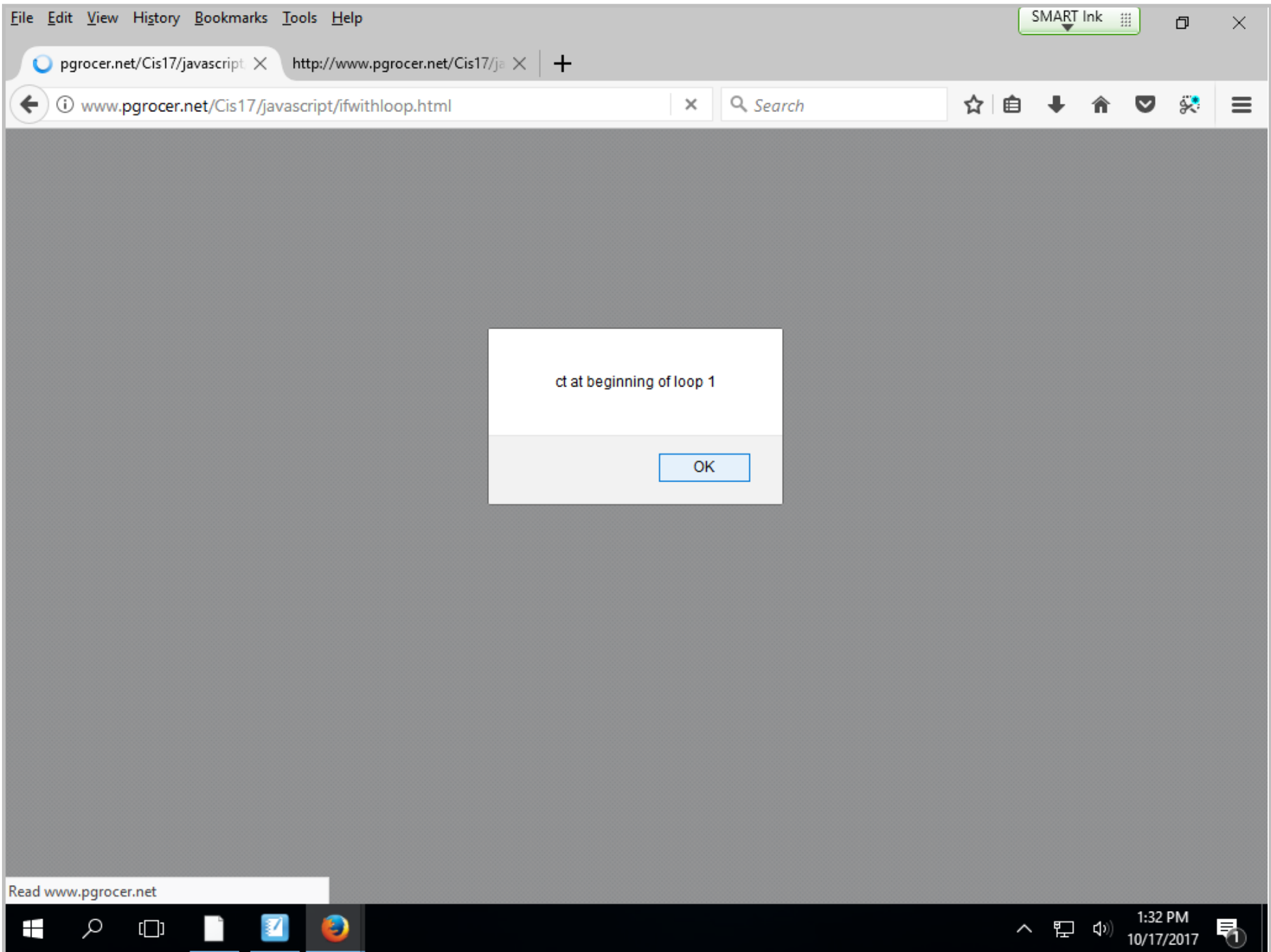
pgrocer.net/Cis17/jav
Untitled - Notepad
File Edit Format View Help SMART Ink

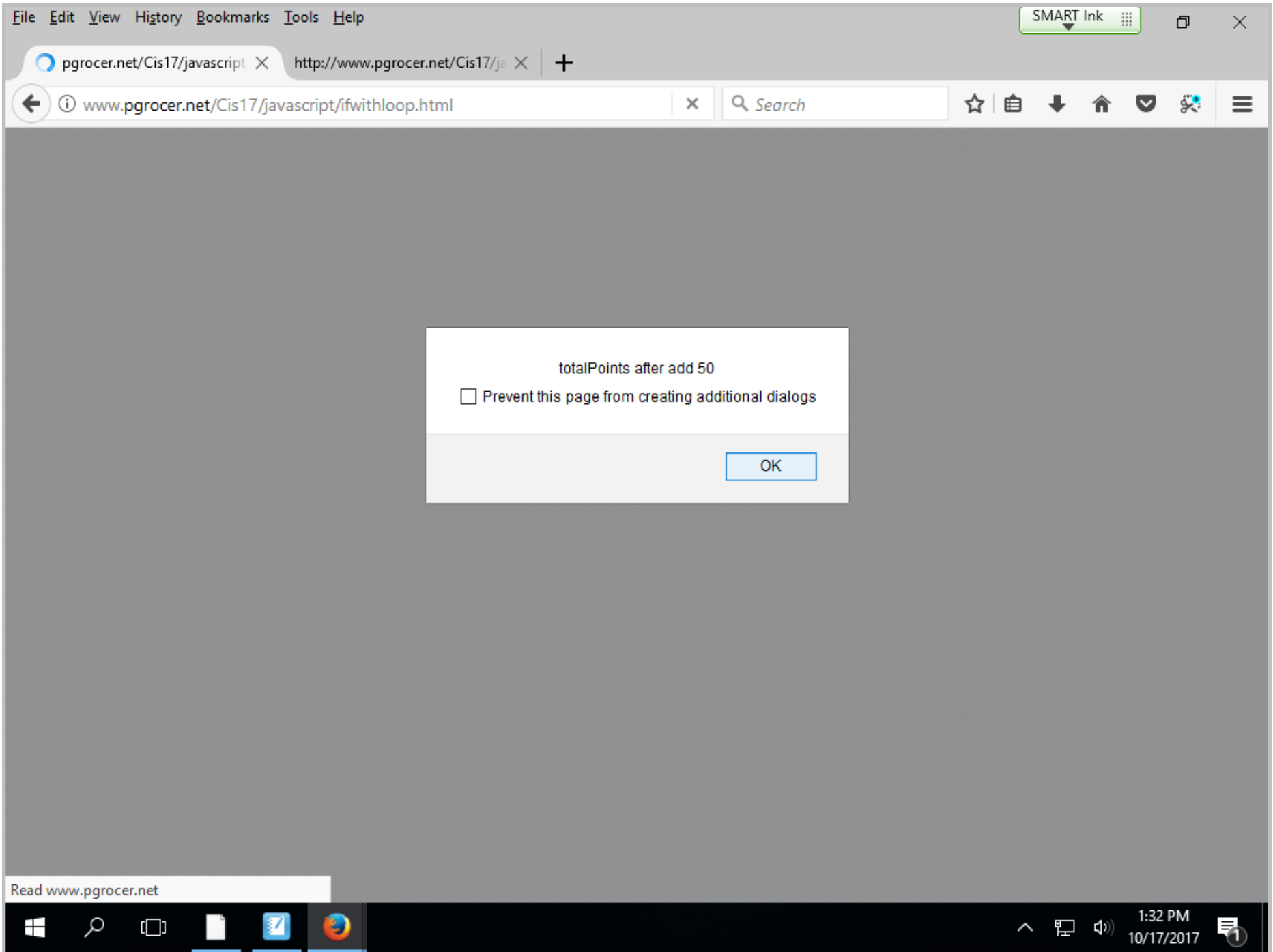
```
<html>
<script type="text/javascript">
var data_input = 0;
data_input=prompt("How many times should I write the line?",0);
var ct=1;
do
{
document.write("This is number " + ct + "<br>");
ct = ct + 1;
}while (ct <= data_input)
document.write("<br>" + "This is the end!!!")
</script>
</html>
```

Always do loop at least once

```
graph TD
    Start([Start]) --> var[var]
    var --> prompt[/prompt/]
    prompt --> ct1[ct=1]
    ct1 --> write[/write/]
    write --> ctinc[ct=ct+1]
    ctinc --> cond{ct <= data_input}
    cond -- Y --> write
    cond -- N --> End([End])
```

Windows taskbar: 1:31 PM 10/17/2017





The image shows a screenshot of a Windows desktop. In the foreground, a Notepad window titled "Untitled - Notepad" is open, displaying JavaScript code. The code is intended to be embedded in an HTML page. The code defines variables for input points, total points, and a message. It uses a while loop to prompt the user for points and update the total. After the loop, it checks if the total points are less than 10, and if not, it checks if they are less than or equal to 50 to determine the prize group. The code ends with a document.write statement to output the message.

```
var inputPoints;
var totalPoints = 0;
var msg;
var ct = 1;
while (ct <= 5)
{
    alert("ct at beginning of loop " + ct);
    inputPoints = prompt("Enter the number of points you have earned",0);
    totalPoints = parseInt(totalPoints) + parseInt(inputPoints);
    alert("totalPoints after add " + totalPoints);
    ct = parseInt(ct) + 1;
}
if (totalPoints < 10)
{
    msg = "Not enough points for a prize";
}
else
{
    if (totalPoints <= 50)
    {
        msg = "You can choose a prize from group B";
    }
    else
    {
        msg = "You can choose a prize from group A";
    }
}
document.write(msg);
</script>
</html>
```

In the background, a web browser window is visible, showing the URL www.pgrocer.net/Cis17/javascript/ifwi. The page content includes the text "You can choose a prize from group A". The Windows taskbar at the bottom shows the time as 1:36 PM on 10/17/2017.

The image shows a screenshot of a web browser window with a Notepad application overlaid. The browser window has a single tab titled "Point accumulation" with the URL "http://www.pgrocer.net/Cis17/j...". The Notepad window, titled "Untitled - Notepad", contains the following HTML and JavaScript code:

```
<html>
<head>
<title>Point accumulation</title>
</head>
<body>
<script type="text/javascript">
  var playerOneTotal = 0;
  var playerTwoTotal = 0;
  var playerOneEntry = 0;
  var playerTwoEntry = 0;
  var contProg = "Y";
  while (contProg == "Y")
  {
    playerOneEntry = parseInt(window.prompt("Enter the points player one earned",0));
    playerTwoEntry = parseInt(window.prompt("Enter the points player two earned",0));
    playerOneTotal = playerOneTotal + playerOneEntry;
    playerTwoTotal = playerTwoTotal + playerTwoEntry;
    contProg = window.prompt("Do you want to play again, Y or N?","");
  }
  document.write("The total for player one is: " + playerOneTotal);
  document.write("<br>");
  document.write("The total for player two is: " + playerTwoTotal);
</script>
</body>
</html>
```

Handwritten red annotations in the Notepad window include the word "control" written in red cursive, with a red line pointing to the `contProg` variable. Additionally, the `while` loop and its closing brace are underlined in red.

The screenshot shows a web browser window with the title "Point accumulation" and the URL "www.pgrocer.net/Cis17/javascript/finaltotals.html". The browser displays the output of the JavaScript code: "The total for player one is: 9" and "The total for player two is: 37".

Overlaid on the browser is a Notepad window titled "Untitled - Notepad" containing the following JavaScript code:

```
<html>
<head>
<title>Point accumulation</title>
</head>
<body>
<script type="text/javascript">
  var playerOneTotal = 0;
  var playerTwoTotal = 0;
  var playerOneEntry = 0;
  var playerTwoEntry = 0;
  var contProg = "Y";
  while (contProg == "Y")
  {
    playerOneEntry = parseInt(window.prompt("Enter the points player one earned",0));
    playerTwoEntry = parseInt(window.prompt("Enter the points player two earned",0));
    playerOneTotal = playerOneTotal + playerOneEntry;
    playerTwoTotal = playerTwoTotal + playerTwoEntry;
    contProg = window.prompt("Do you want to play again, Y or N?", "");
  }
  document.write("The total for player one is: " + playerOneTotal);
  document.write("<br>");
  document.write("The total for player two is: " + playerTwoTotal);
</script>
</body>
</html>
```

Next to the code in the Notepad window, there is a blue text annotation: "Extra credit if you add code to tell who won."