


Test Your Tech

A local area network is:

- A. An exclusive social club.
- B. A group of computers, usually in a single building, connected by cables.
- C. Local television affiliates of the big networks.

1




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Unit I Project

Create a bogus (fictitious) Web page
In order to appreciate how easy it is to fake quality info

- Modify photograph, changing its meaning
- Write misleading text
- Add "authenticity" links, fake credentials ...

* Your page should look as legitimate as possible, but contain false information




Project 1—Details on Web

You will ...

- * Write page in HTML
- * Find/take a photo
- * Modify w/ Photoshop
- * Find "authenticity" links
- * Milestones
 - Turn In by 10pm Monday October 15:
Web page plans
 - Turn In by 10pm Monday October 22:
Web page + photo

Topics

Lunar ruins
New human gene
Eiffel Tower in Seattle
Another Martian pyramid
Dolphin translator
Recent Int'l Story
Google Research



Here's How It Works

Follow these steps:

- * Create your page locally
- * When finished, publish it on the server
- * Do not touch after the deadline (10:00 AM)
- * Submit your files in Catalyst Collect It
- * Leave your page unchanged until grading is complete


We will check the timestamps



Net Point Video

Fluency Essentials


- * <http://uweoconnect.extrn.washington.edu/fitnessfluencyessentialsdsflit7/>



Debugging & Troubleshooting

"To err is human, but it takes a computer to really foul things up"

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Using Computers...

In IT, stuff goes wrong ... debugging is the process of finding the error

- * Term coined by Grace Murray Hopper
- Best solution ... make no mistakes!
 - * Be accurate ... get it right the 1st time
 - * In most cases computers can't recover for our errors

The standard of precision for computers is , which is tough for people, but try!




When You Debug...

Debugging is not algorithmic: no guaranteed process

There are guidelines for debugging...


Rather than trying things aimlessly and becoming frustrated, think of yourself as solving a mystery Become Sherlock Holmes

- Be objective: What are my clues? What is my hypothesis? Do I need more data?
- Consciously 'watch' yourself debug -- its an out-of-body experience
- When stumped, don't become frustrated, but ask, "What am I misunderstanding?"



Debugging Guidelines

- * Verify that the error is reproducible
- * Determine exactly what the problem is
- * Eliminate the "obvious" causes
- * Divide process into working/faulty parts
- * On reaching a dead end, reassess the information you have, trying to identify the mistake you are making
- * Work through process making predictions and checking they're fulfilled Memorize?




Reproducibility

First step: verify the error is reproducible

- * Transient errors are very rare, but they do happen ... try again

Getting Out and Getting Back In

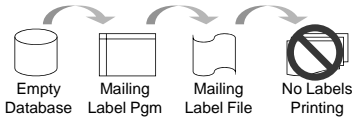
- * Rebooting the operating system is advisable, especially for errors involving peripheral devices (printers, modems)




Determine the Problem

Second step: figure out what's wrong

- * Often there is a sequence of steps following an error and propagating it ... work backwards looking to see where the error first occurred



Empty Database Mailing Label Pgm Mailing Label File No Labels Printing




Eliminate the Obvious

Third step: eliminate obvious causes
 "If the cause were obvious, the problem would have been fixed!"

* There are standard things to check:

- Inputs
- Connections
- "Permissions"
- Physical connectivity

"Working" in similar situations is usually good enough




Isolate the Problem

Try to "partition" the situation into working and non-working parts

- Form a hypothesis of what's wrong
- Make as few assumptions as possible
- Take nothing for granted

The goal is to eliminate as many things from consideration as possible




At a Dead End, Reassess

When everything seems to check out, don't get frustrated ... ask, "What am I misunderstanding?"

* Your goal is to see the situation as it is, not as you think it should be

- Are you assuming too much?
- Are you mis-reading the clues?

Sometimes, stepping back to the surrounding context is helpful




Make Predication/Check

Beginning with the isolated part, step through the process, predicting the outcome and verifying it

- * A prediction that is not fulfilled shows...
- A possible bug
- A possible misunderstanding
- A chance to narrow the search

'Sleeping on it' may help!



A Debugging Example

After building a web page, we find it is wrong

```


<body bgcolor="#009933">
<h1>Husky Pride</h1>
<h2>Those Amazing Huskies!</h2>
<p class="float:right">
  
    Husky Dog-Team, Atlin,
    British Columbia,
    Photo: H.E. Brown
  </span>
  © Public domain ©
  Source: Civilization
  Retrieved 10/9/20
  <a href="http://www.o
  </a>
</p>
<p>This amazing photo is of a Dog
</p>
<h2>There is a new "copyleft" mov
        
```

Husky Pride Houston, we have a problem

Those Amazing Huskies!

This amazing photo is of a Husky team. It was taken circa 1909 by H.E. Brown. It is in the public domain, because the copyright expired after two copyright periods of 28 years, or 56 years total, in 1965. Other photos in the public domain are those taken by government text and photos. Wikipedia has links to many public domain images on http://en.wikipedia.org/wiki/Wikipedia:Public_domain_image_sources

There is a new "copyleft" movement, that confers
<http://en.wikipedia.org/wiki/Copyleft> for more



Debugging Demo


```

<body bgcolor="#009933">
<h1 style="color="white">Husky Pride</h1>
<h2>Those Amazing Huskies!</h2>
<p class="float:right">
  
    Husky Dog-Team
    Husky Dog-Team
    Source:
    © Pub
    Source:
    Retrive
    <a href=""
  </a>
</p>
<p>This amazing photo
</p>
<p>There is a new "copy
</p>
</body>
</html>
        
```

Husky Pride Intended page

Those Amazing Huskies!

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Animations

Debugging HTML



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Summary

Debugging is not algorithmic, but there are guidelines to follow

- * It probably pays to memorize them so they come to mind while debugging
- * Watch yourself debug -- assess how you are doing, what you need to know
- * Being accurate -- avoiding textual mistakes at all -- saves frustration

Notice how a few letters mess up a whole page!



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For Friday

Read Chapter 8 in Snyder

Read Project 1 and plan your Web Site of Misinformation

- * Part 1A is due on Monday night before 10pm!