OPERATING SYSTEMS FINAL PROJECT

touch :: new and improved

Josh Seaman
Nick Morgan
Tigerlilly Zietz

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touch <filename>

Project Description

if (touch a file that already exists) {

    touch notifies the user that the file already exists;

} else {

    touch creates the file and notifies the user that the file was successfully created;

touch += a little bit of ASCII fun

Project Inspiration and Goals

- Receive indications of success or failure
- Avoid trying to make files that already exist
- Remove ambiguity
- Ensure user is up-to-date
- Have fun

Research

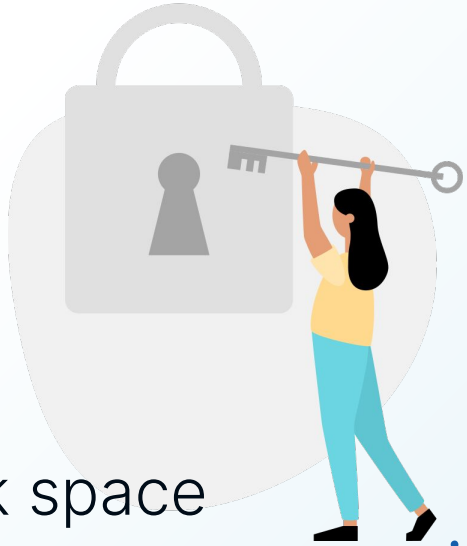
- Existing commands and their shortcomings
  - *touch*, in particular
- Modifying shell commands vs kernel commands
- GNU core utilities library and documentation
- How to modify core utilities inside of a new kernel build

Obstacles

- Building of the kernel
  - Computer crashing, disk space
- touch is a core utility, not a kernel command
- TARBALL-CEPTION
- File structure permissions
- Machines placement of touch executable
- Learning GNU core utilities and how to use them

Solutions

- Untarred another tarball for core utilities
- Removed and reinstalled Ubuntu
- Dynamically allocated more storage/disk space
- Iterative development
- Dr. Johnson’s words of advice!



Project Demo

https://www.youtube.com/watch?v=MgGqHYXi3A8

What We Learned

- Better understanding of how Operating Systems work behind the scenes
- Higher comprehension of C at a fundamental level
- Increased comfortability with commands including “grep” and “find”
- How to effectively navigate through, interpret, and interact with a complex system

Thank you!

Any questions?