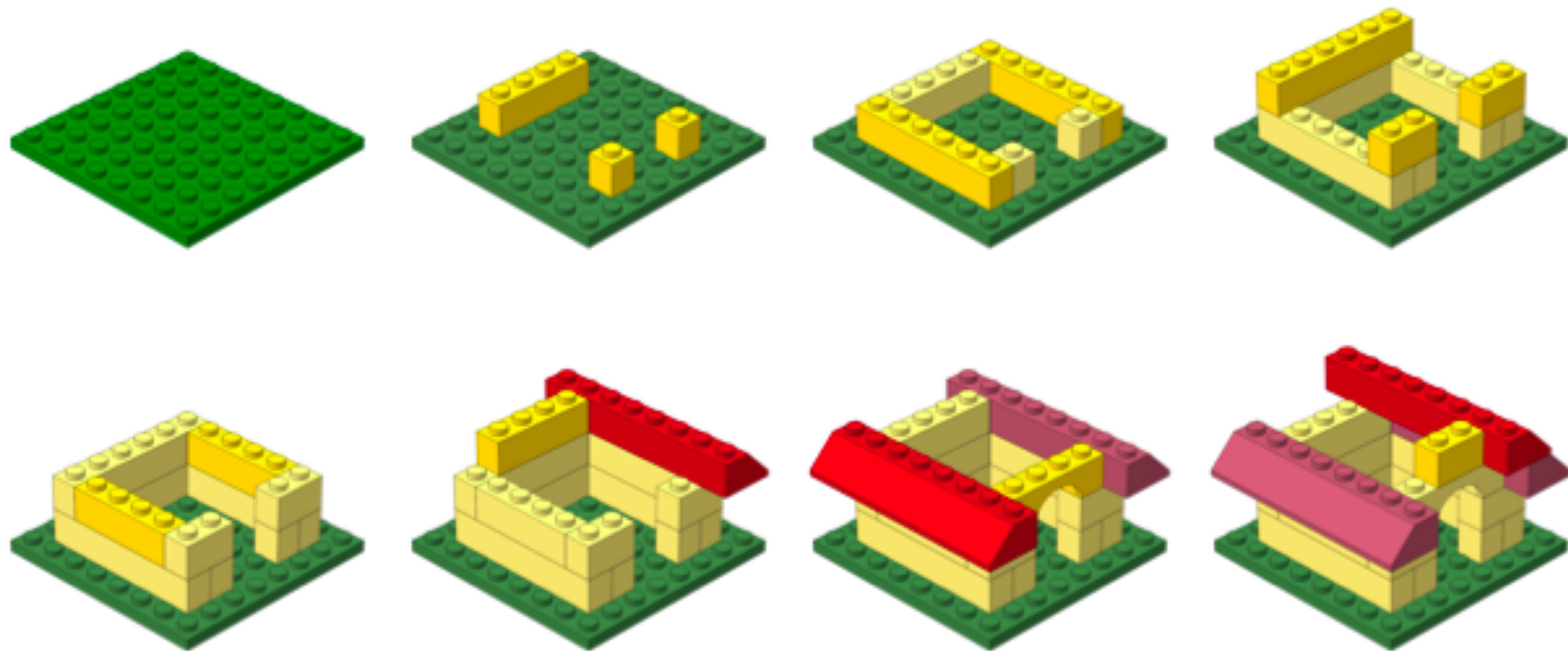


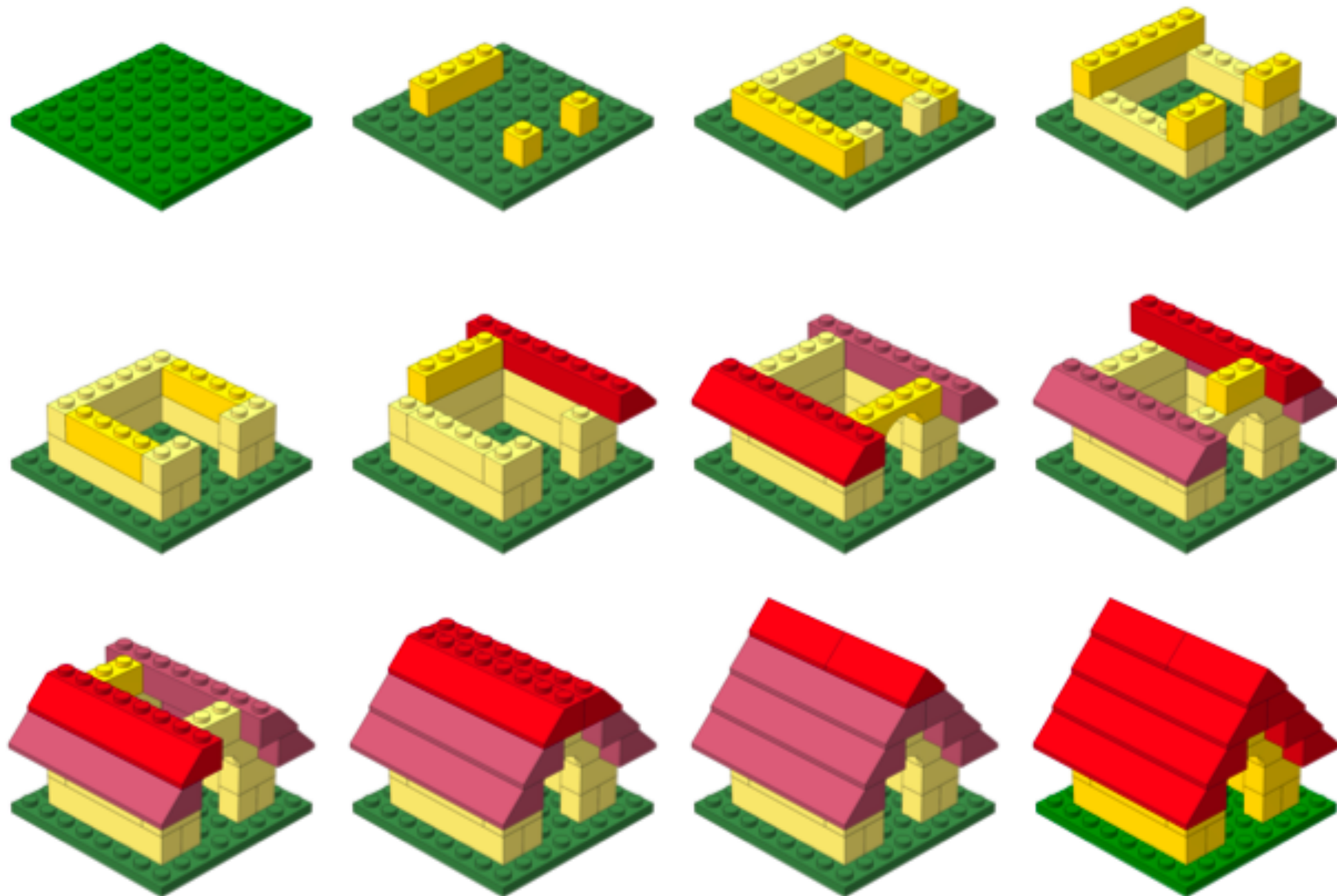
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Building blocks



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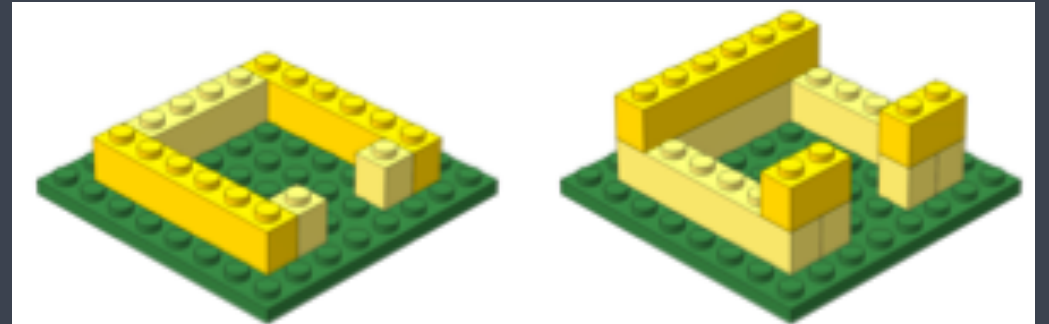
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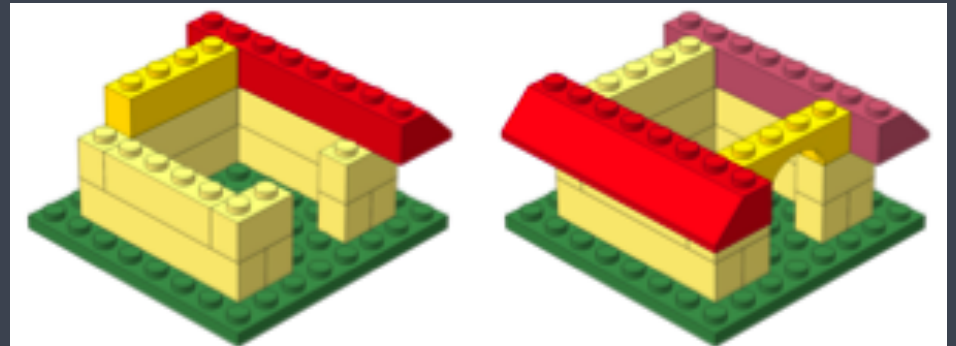
Building blocks

The Foundation!



- ✓ Unix command line interface or the Unix shell

Build on it...



✓ Unix command line interface or the Unix shell

- handle large data files
- perform repetitive tasks efficiently
- use high-performance computing environments
- perform bioinformatics analyses



<http://en.wikipedia.org/wiki/Unix>, <http://en.wikipedia.org/wiki/Tux>

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- ✦ Easily coordinates the use and sharing of a computer's (or a system's) resources and allows multi-user capacity, among other features

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Bioinformatics:

- ✦ A large proportion of NGS-analysis tools are created for Unix
- ✦ Computational resources that can handle large datasets require a working knowledge of Unix

Components

The Unix system is functionally organized at three levels:

- ✦ **The kernel**, which schedules tasks and manages storage: the brain of the system
- ✦ **The shell**, which connects and interprets users' commands, calls programs from memory, and executes them. *It is an interpreter that helps translate our input into computer language*
- ✦ **The tools and applications**, these offer additional functionality to the OS

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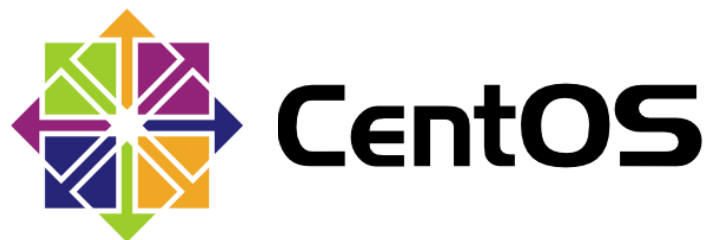
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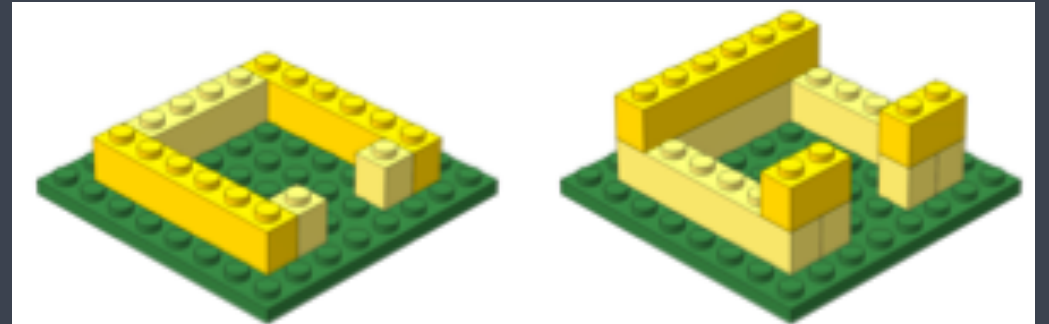
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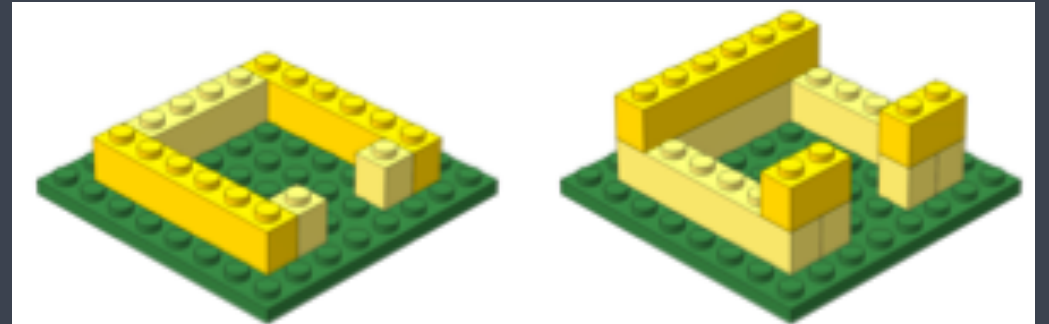


Learning Objectives



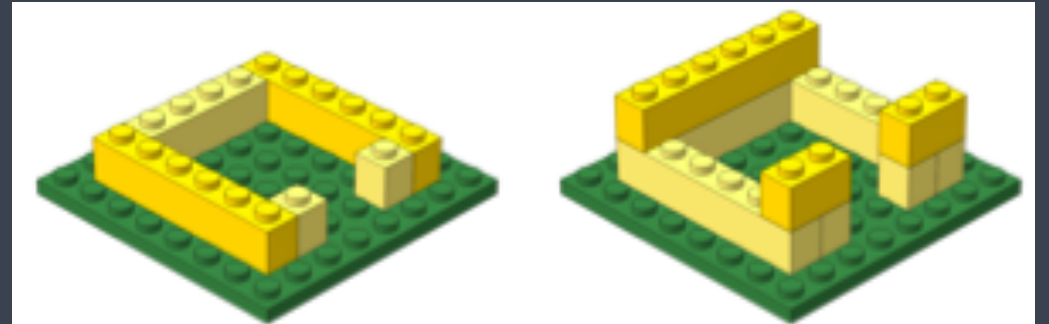
- ✓ Become comfortable with the command line interface (CLI)

Learning Objectives



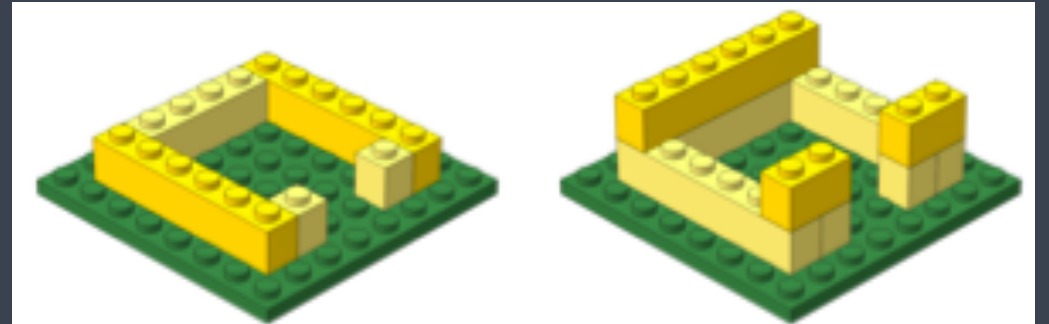
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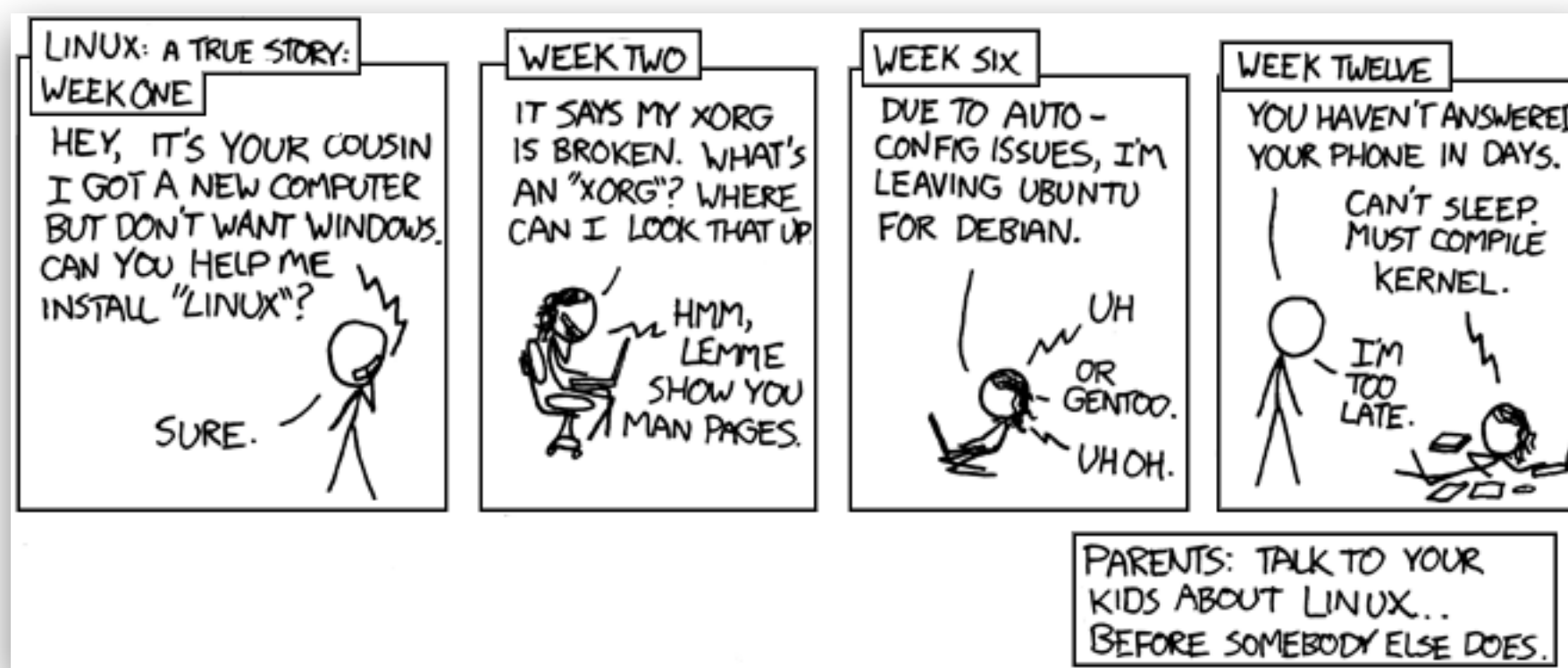


- ✓ Become comfortable with the command line interface (CLI)
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- ✓ Use the command line to work with small and large data files

Learning Objectives



- ✓ Become comfortable with the command line interface (CLI)
- ✓ Find your way around the Unix directory structure
- ✓ Use the command line to work with small and large data files
- ✓ Perform repetitive tasks more efficiently



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