

Introduction to Shell Scripting

Awk

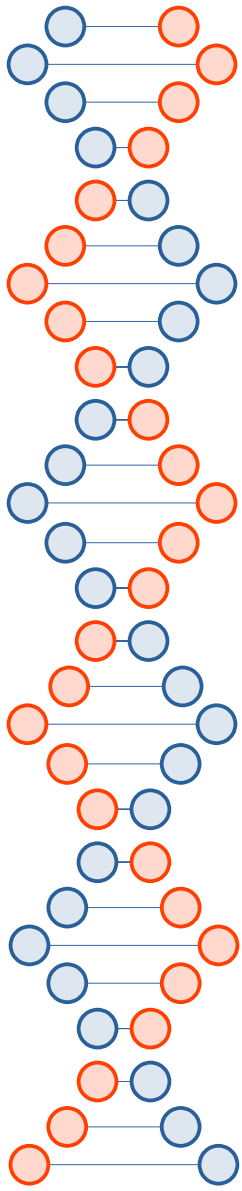
Skylar Chan - BSCI238G
UMD
March 3th, 2023

Students will be able to

- Use awk to extract text from columns

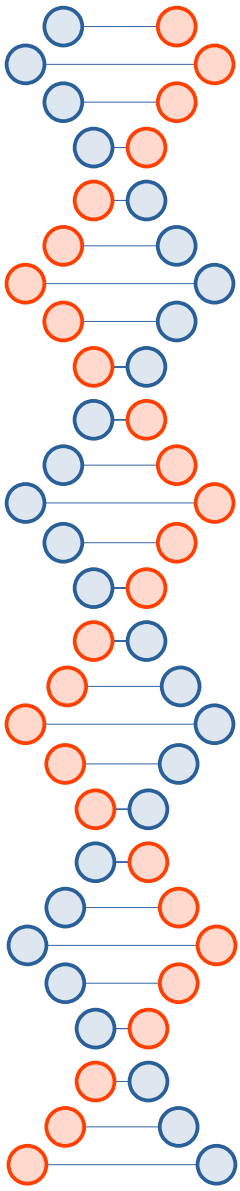


Swoobat



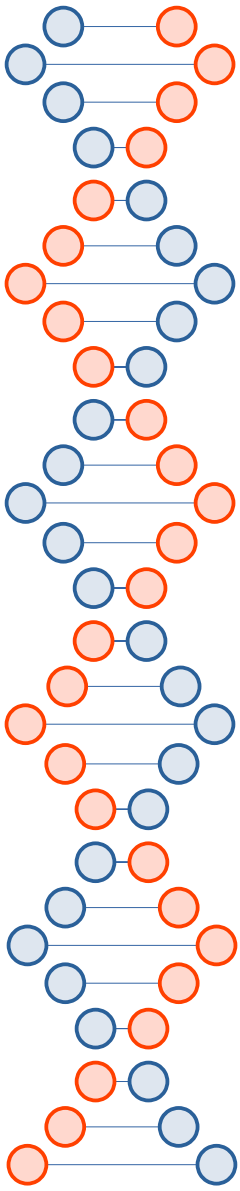
cut

- Extract columns
- Very simple
- **cut -d' ' -f 1**



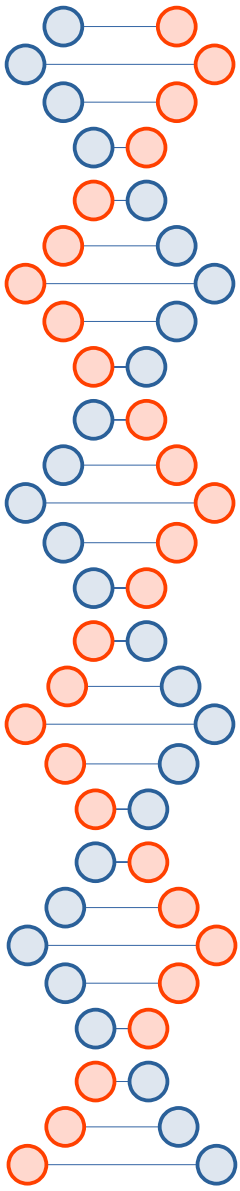
column

- Formats stdin or a file into multiple columns.
- **column --table**



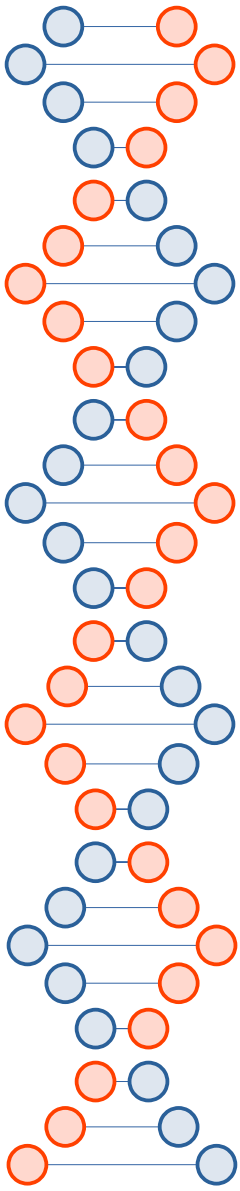
Awk

- Named after its creators
- Primarily used to extract columns of text
- Lots of variants: gawk, mawk, nawk, so on
 - We'll focus on gawk (the GNU version)
- Also Turing-complete programming language
 - Again we'll keep it simple



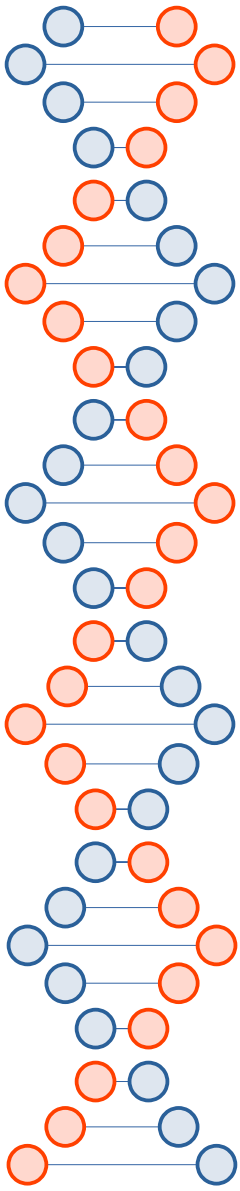
Awk syntax

- `/regex_match/ { do_one_thing ; do_another_thing }`
- Things we can do:
 - Print columns
 - Use if/else statements
 - Store variables and arrays (not covered)
- Additional BEGIN and END blocks for operating on stuff



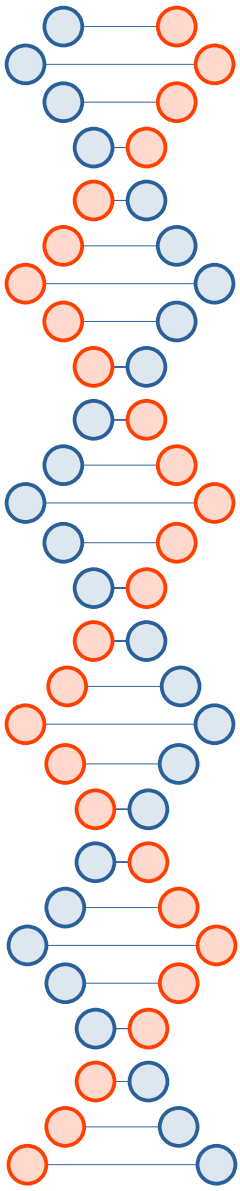
Awk one-liners

- **awk '{ print \$1 }'** - print first column
- **awk '/A/ { print \$1 }'** - print first column if line contains A
- **awk -F ',' {print \$NF}** - use comma as line separator and print the number of fields
- **Awk 'NR%2==1'** - print odd numbered rows (row number divided by 2 has remainder of 1)



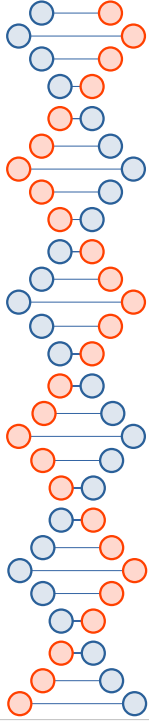
Awk

- `‘/regex match/ { print $col }’`
- NR is a variable for number of words
- NF is a number of files
- FS is input field separator
- RS is input record separator
- OFS is output field separator
- ORS is output record separator



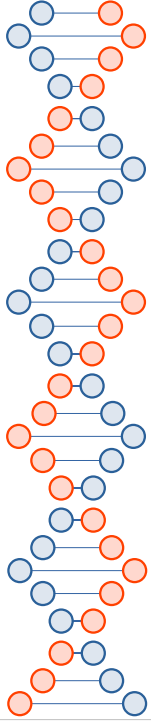
The End

Today's Terminal Toy:
*cow*say



Introduction to Shell Scripting Awk

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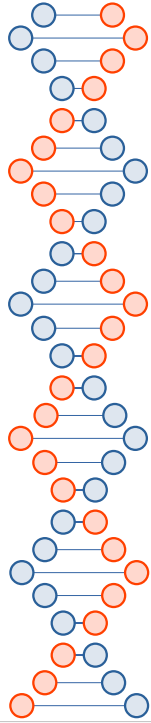


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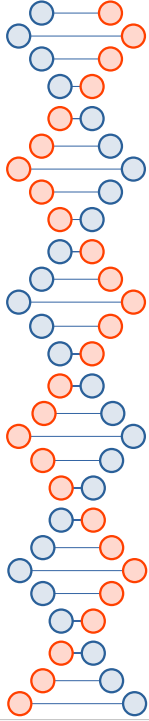


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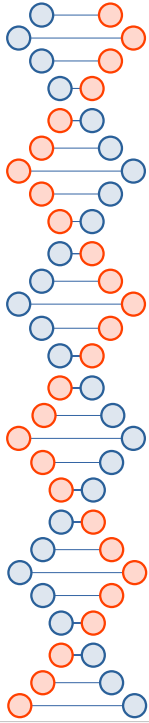
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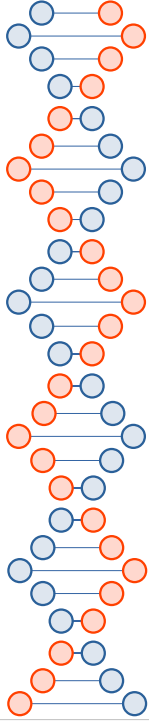
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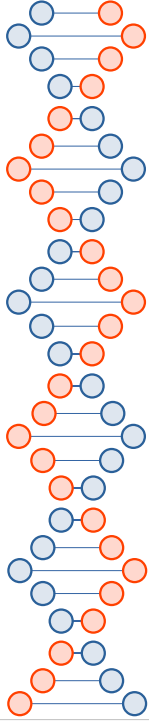
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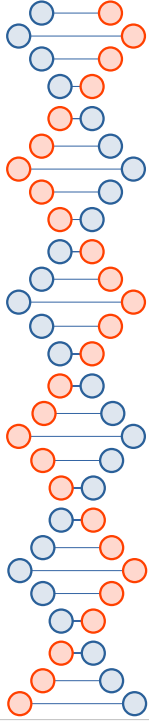
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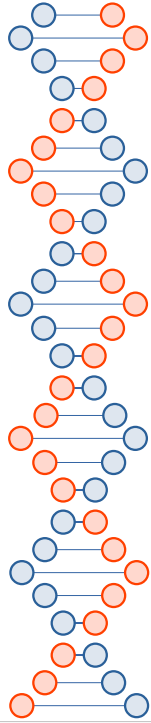
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The End

Today's Terminal Toy:
`cowsay`